## PERCEPTION OF QUALITY OF LIFE IN PATIENTS WITH WORK-RELATED MUSCULOSKELETAL DISORDERS

Giselle Santana Dosea\*
Cristiane da Costa Cunha Oliveira\*\*
Sônia Oliveira Lima\*\*\*

#### **ABSTRACT**

Work-Related Musculoskeletal Disorders (WMSDs) are chronic diseases caused by strenuous work without breaks and with incorrect postures and repetitive movements. Studies show that patients with chronic diseases tend to have a lower quality of life. Thus, the aim of this study was to analyze the perception of quality of life in people with WMSDs in Sergipe. The sample consisted of 17 employees referenced at Worker's Health Reference Centers in that state, in 2013, who volunteered and completed a set of interviews conducted and audio recorded by the research authors. Results were categorized and described through Bardin's content analysis and allowed the observation that all aspects of quality of life were negative. It is considered that the Sergipe workers assessed in this research have a negative perception of quality of life and that these aspects have an influence, also negative, on an individual's health-illness process.

Keywords: Saúde Occupational health. Cumulative trauma disorders. Quality of life.

### INTRODUCTION

The industrialization process that occurred in the 18th and 19th centuries introduced changes in society, including the form of production of consumer goods. The population that used to work in an artisanal way began to use their work force with machines. This modernization process caused social changes, especially those related to a worker's health/ill process<sup>(1)</sup>.

It is worth highlighting the appearance of Work-Related Musculoskeletal Disorders (WMSDs) as a major occupational disease deriving from the industrialization process. Today, it is believed that WMSDs are among the main public health problems, which brings as a consequence several negative impacts to a country's social and economic spheres<sup>(2)</sup>.

WMSDs are diseases with occupational etiology. They are caused by the way a professional performs or is forced to perform his job. When the labor process is carried out in a strenuous manner, without breaks, with repetitive and stereotyped movements and incorrect postures, symptoms without "a specific clinical entity" appear, but with aspects related to pain, paresthesia, fatigue, loss of strength, and range of movement<sup>(3)</sup>.

Diseases belonging to WMSDs include those that affect tendons, muscles, fasciae and ligaments, occurring in an isolated or combined way and resulting in diseases that mainly affect the lower limbs and spine, such as tendinitis, lumbago, neck pain and back pain<sup>(3)</sup>.

One of the main characteristics of WMSDs is its chronic nature. Its symptoms are remitting and frequently cause sequels that force workers to stop going to work<sup>(4)</sup>. However, it is known that the reality of suffering of a person with a WMSD goes beyond the physical aspect of the disease; the subjectivity of the pain should be considered, as it spans psychosocial aspects and brings limitations to an individual's quality of life (QL).

There is consensus in the literature that QL can be comprehended by subjective and multidimensional aspects, being dissociated from a merely quantitative concept. The consideration of an individual's needs encompasses the assessment of perception regarding health status, through different dimensions related to a subject's level of satisfaction with his love life, family, social circles and environment<sup>(5)</sup>.

Thus, QL should not be taken simply as an objective reflex of living conditions, but rather in a context with individual perspectives

<sup>\*</sup>Physiotherapist, Ph.D. in Health and Environment. E-mail: giselledosea@hotmail.com

<sup>\*\*</sup> Odontologist, PhD in Collective Health. E-mail: criscunhaoliva@gmail.com

<sup>\*\*\*</sup>Physician, PhDin Medicine E-mail: sonia.sol@ibest.com.br.

involving subjective aspects concerning perception of life and health. QL and professional life are linked and should be reason for concern to occupational health researchers<sup>(6)</sup>.

Considering the subjectivity that permeates WMSDs, it is necessary to analyze qualitatively the QL of people with the disease as a means to allow for the free expression of their feelings, longings and the way they experience their illness process. Bearing in mind the lack of studies with qualitative approaches to QL assessment, the objective of this research was to analyze the perception of quality of life in people with work-related musculoskeletal disorders.

#### **METHODOLOGY**

This is a descriptive study with qualitative approach. The sample was made up by workers with WMSDs who voluntarily accepted to participate in the research and were referenced at Worker's Health Reference Centers [Centros de Referência em Saúde do Trabalhador] (CERESTs) in the state of Sergipe in 2013. It excluded individuals with serious mental disorders, in addition to degenerative and rheumatologic diseases.

All participants signed an informed consent form. Moreover, the study project was approved by the Ethics and Research Committee [Comitê de Ética e Pesquisa] (CEP) under legal opinion No 392.883.

Data were collected in loco from October 2013 to July 2014 at CERESTs in all of Sergipe's health regions, where 56 notified cases of WMSD were found. By means of the patients' personal data obtained in said regions, such as address and phone, it was possible to reach them out for the interviews, which were conducted at the CERESTs or their houses, always in places that had a calm and comfortable environment, free from external interferences.

Data were collected in the form of interviews, with the utilization of a script prepared by the research authors containing questions about the workers' QL. The interviews were audio recorded after authorization by each volunteer and, then, fully transcribed. Qualitative analysis was carried out through Bardin's content analysis technique<sup>(7)</sup>, following the three stages

suggested by the author: pre-analysis, analytical description and inferential interpretation. The speeches were categorized and, subsequently, the categorized items were analyzed descriptively.

#### **RESULTS E DISCUSSION**

Of all 56 individuals with WMSD identified at the CERESTs, 39 accepted to participate in the research, but only 17 (43.58%) allowed the interviews to be audio recorded. After the content analysis during the transcription of interview excerpts, five categories were selected: Influence of pain on the capacity to perform everyday activities; Health perception; Reported sensations about the performance of everyday and work activities; Social and emotional relations.

Content analysis results enabled a clear observation of the extent to which QL was affected in individuals with WMSD. In the volunteers' reports, it was possible to notice that all QL aspects proposed in the interview showed negative results.

## Influence of pain on the capacity to perform everyday activities

The workers' speeches highlight a sensation of uselessness, when there is inference as to not performing, avoiding or performing daily tasks with difficulty. About the Pain category, most of the reports revealed the impact of the disease on work.

- [...] I feel useless [...] (P.11)
- [...] I don't do anything; even getting dressed bothers me [...] I start working at 7 in the morning and stop at 4 in the afternoon... I barely have a break, which also includes lunch. [...] Pain is my enemy [...] (P.1)
- [...] I do it (the job) because there's no other way [...] (P.5)
- [...] I see my 14-year-old son doing the job I can't do anymore... at this age (young), I'm no longer healthy. I fear that my son will have back problems just like me... but, how are we supposed to live? [...] It hurts so bad that I stopped working [...] (P.2C)
- [...] At work you have to reach your quota, you have to do it, you have to produce. So, even if I

struggle, I do it. When I'm in pain, I have to do it anyway [...] (P. 41)

- [...] You can't limit yourself; you have to work no matter the pain [...] (P.13)
- [...] Some days it hurts so badly I can't breathe [...] (P.29)

The individuals claimed that the pain interferes with their performance at work and, despite feeling physically limited, would make a greater effort so their physical limitation did not make them functionally impaired. In many cases, the reports showed workers who were forced to perform certain activities, even if they did not have the strength or were limited by the pain, under penalty of losing their jobs. Moreover, it is possible to observe that pain is a factor of extreme limitation, being, perhaps, the one with the greatest impact on the capacity of these workers.

Production demands cause professionals to work beyond their physical capacity and neglect signs of the disease. In addition, working means, production-based management and low control of work organization generate in managers the belief that the service continuation would be possible only at the expense of overburdening a worker's body<sup>(8)</sup>.

Pain is discussed in the literature as an invisible symptom that is not possible to touch or see, only feel. This characteristic makes the report of painful symptoms to cause suspicion in employers and coworkers, who believe that the worker might be faking a disease in order to have secondary gains. A consequence of this fact is that the professional keeps working, even with symptoms of the disease, and ends up making his condition worse, which culminates in mental and social impairment<sup>(9)</sup>.

Pain is not linear; it follows the course of the interpretation of the symptom and of resilience behaviors in each individual. Thus, it is important to consider social and emotional factors during the assessment of patients, which prevents workers from being exposed to incorrect diagnoses and inefficient treatments; consequently, they become definitively unfit for work<sup>(10)</sup>.

#### **Health perception**

The content analysis showed the participants' negative perception of their own health, which is

complemented with the Strength and vigor for work category, where sensations of exhaustion and tiredness were more evident.

- [...] I fear my health getting worse. (P.48)
- [...] my health gets worse only if I let it, and I won't let it. [...] (P.13)
- [...] my health is bad because I'm a useless person [...](P.46)
- [...] I do want to work but I can't do it like before... I don't have the same strength [...] (P. 1L)
- [...] I feel exhausted all the time I wake up in the morning and feel like killing myself. I stay quiet all day long, don't speak with anybody. Sometimes I think, that's enough, for God's sake, I can't take this anymore'. My life is a hell [...] (P.1)
- [...] I gave myself all to my job but it was not worthy [...] (P.2)

As for **Health perceptions** and **sensations of** strength and vigor for work, it is possible to observe that most individuals have a negative perception of their own health, with higher prevalence of feelings of exhaustion and tiredness. There were reports of fear about the future, the way the disease could evolve and, at the same time, there were speeches that evidenced a will to be productive at work again, with feelings confounded with the disabling symptoms of the disease. Although it is known that the concept of health is more than absence of disease, the literature states that, in general, workers associate capacity to work with health. Thus, if they lose this capacity, they develop a negative perception of their future<sup>(11)</sup>.

It was possible to observe that most workers performed everyday tasks but with great difficulty, which compromises their functional capacity for common tasks of the everyday life such as carrying light weights, climbing stairs, doing chores, showering or dressing. The results in this category also show individuals that are not able to do these activities or that need the help of others, which may be related to the great physical impairment of people with WMSD.

#### **Interference of health with social activities**

The interviewed workers reported that health is a factor that limits their engagement in social activities. Furthermore, the emotional factor seems to be the one that most interfere with one's job and other routine activities, according to the Emotional influence on work or other activities. Most individuals also referred to feelings of depression, discouragement, nervousness and tiredness.

- [...] they think we're not sick... I have coworkers that say: 'I see him hanging out..., he is not sick at all [...] (P.1L)
- [...] People think I'm faking it. They think just because I'm young... I don't have a disease [...] (P.2C)
- [...] but I didn't want to leave my job, ever [...](P.45)
- [...] Because I used to be a glad, happy and healthy person and didn't have reasons out there (outside work) to acquire this disease [...] I thought a lot about suicide in the beginning, taking all sleeping pills so I didn't wake up ever again [...](P. 48)
- [...] If I didn't exist, I think that'd be even better... nobody will be here all worried about me, doing stuff for me... I've thought about taking my own life many times, yeah, suicide!... I felt the worst person in the world. All because of work. (P.31)

Most workers realized that their health conditions interfered with their social activities such as going out with friends, and on their relationship with their families; also, most understand that their emotional state impacted their relationship with work and everyday activities; the most evident feelings were depression, discouragement, nervousness and tiredness, to the detriment of sensations of calmness and tranquility. Added to these results, there were reports of disbelief on the part of friends and family about the disease because, as previously discussed, WMSDs have as main symptom pain, which is invisible and triggers in workers feelings of powerlessness, depression and distress. Loss of QL affects directly one's relationship with family and friends, as well as a worker's social life.

Reports showing feelings of incapacity and humiliation face the inability for work may be linked to the fact that workers cannot respond to the same demands of their healthy coworkers. They feel embarrassed because the interpretation bosses and colleagues have is that they are just

acting the way they are because of "lack of interest, lack of responsibility, or even laziness" (12:12).

The emotional exhaustion caused by the disease becomes evident in some narratives that address suicide. This fact was associated with the sensation of uselessness reported by the interviewees added to their anxiety about wanting to work and, at the same time, being unfit. According to the literature, there is a "discredit" commonly experienced due to feelings of powerlessness, frustration and lack of future perspective associated with loss of labor capacity, in addition to identity crises and doubts about the meaning and reason of their own lives<sup>(25:11)</sup>.

A qualitative research conducted with workers from Southwestern Brazil observed, based on reports, that when a worker is pressured to be fast and agile in production, there are relevant changes in their relations with coworkers and bosses because the demand for greater participation in the productive process is followed by health aggravations, which, in turn, raise the levels of emotional exhaustion, sadness and depression<sup>(12)</sup>.

The workers are prone to frustration and feel penalized by their disease, because all this process leads to an individual's social exclusion. Thus, there is loss of "optimism, confidence, motivation and resistance to cope with adversities from work demands" (15:13). Thus, support from family, bosses and coworkers is vital to the process of reinsertion into work.

Regardless of personal factors such as age and sex, and organizational factors such as working hours and repetitive efforts, the psychosocial load at work should be regarded as a precursor aspect to the development of WMSD. For this reason, this component must not be underestimated but rather considered during the assessment of workers<sup>(14)</sup>.

In this study it was possible to observe that the presence of WMSD is no longer the main factor to be analyzed in the QL of affected people because as important as the disease it is to understand how the individual perceives his health status and how much this interferes with his life, whether socially or psychologically, since QL directly affects his relationship with family and friends, as well as social life.

These results show that WMSD symptoms affect a worker's life in an aspect that goes beyond his work environment. Besides, the chronicity of the disease impacts more than the work environment, affecting an individual's personal life. The speeches are revealing and allowed identifying workers that, regardless of the disease, are helpless. They are poorly cared for by health sectors and are barely accepted in their social and family spheres.

There is a need for multidisciplinary interventions by health sectors because treatment requires a global investigation of the patient that takes into account biomechanical, cognitive and emotional matters associated with work. Thus, health system professionals, in their diverse specialties, should act together towards the efficacy of the treatment, because WMSD have implications that go beyond the physical domain, comprehending emotional, psychological and social aspects<sup>(10)</sup>.

A study conducted in cities of the states of Tocantis, Ceará and Minas Gerais pointed as difficulties to the access of people with occupational disorders to public health services: the working hours of the CERESTs and Basic Health Units, which are mostly open to the public during the day only, in consonance with the shifts of most people; difficulty to comply with the treatment, since many workers need to resume their work activities and abandon the follow-up with the teams; and difficulty in the articulation of actions promoted by the Family Health Strategy [Estratégia Saúde da Família] (ESF) with worker's health programs proposed by the Brazilian Ministry of Health, based on the belief that caring for people with occupational diseases is a responsibility of specialists in the area only<sup>(15)</sup>.

The workers' speeches were essential resources that enhanced the analysis. Thus, a worker's healthcare needs to be reconsidered in an expanded manner through interventions that "prioritize and truly values the reports of subjects affected by WMSDs" (60:16).

There is a need for greater preparation on the part of public health sectors such as ESF teams

so that professionals can act in a critical way, abandoning the reductionist paradigm of medicine in order to work based on the development of local health actions aiming at improving the QL of people with occupational disorders. In this sense, health professionals need to be qualified so as to understand the concepts of worker's health and environmental health, bearing in mind that it is in the environment that social and development occurs, and that is where risk conditions and situations are determined, which, in turn, influence the health standard of vulnerable populations like workers<sup>(17)</sup>.

Workloads, related to aggravations to a worker's health, need to be identified early because that will enable the construction of solid strategies for health intervention and a worker's quality of life<sup>(18)</sup>. The best health and labor conditions are based on political and social foundations, preconized from the creation of the Brazilian Unified Health System. However, although all progress made should be taken into consideration, the existence of challenges is clear, with highlight, in addition to the accountability of the State and company managers, to "the actual participation of workers in their health and work process" (19).

### FINAL CONSIDERATIONS

Most interviewees perform everyday tasks with great difficulty and claimed to perceive that the pain interferes with their performance at work. The workers also noticed that their health condition was having an impact on their social activities such as going out with friends, and on their relationship with their family; besides, most of them understand that their emotional state greatly interfered with their relationship with work and routine activities.

Thus, it is evident that the workers assessed in this research have a negative perception of QL and that these aspects influence, also negatively, the health and ill process of the individuals.

# PERCEPÇÃO DA QUALIDADE DE VIDA EM PORTADORES DE DISTÚRBIOS OSTEOMUSCULARES RELACIONADOS AO TRABALHO

**RESUMO** 

Os Distúrbios Osteomusculares Relacionados ao Trabalho (DORT) são doenças crônicas causadas pelo trabalho extenuante, sem pausas, com posturas incorretas e movimentos repetitivos. Estudos mostram que portadores de doenças crônicas tendem a ter uma baixa qualidade de vida. Sendo assim, o objetivo desta pesquisa foi analisar a percepção da qualidade de vida de portadores de DORT no Estado de Sergipe, Brasil. A amostra foi composta por 17 trabalhadores aludidos nos Centros de Referência em Saúde do Trabalhador do referido estado, no ano de 2013, os quais foram voluntários e responderam a um roteiro de entrevista elaborada pelos autores da pesquisa, e gravadas em áudio. Os resultados foram categorizados e descritos através da análise de conteúdo, o que permitiu a observação de que todos os aspectos de qualidade de vida demonstraram-se negativos. Considera-se que os trabalhadores avaliados nesta pesquisa possuem uma percepção negativa da qualidade de vida, o que influencia, também negativamente, no processo saúde e doença dos indivíduos.

Palavras-chave: Saúde do trabalhador. Transtorno traumático cumulativo. Qualidade de vida.

# PERCEPCIÓN DE LA CALIDAD DE VIDA EN PORTADORES DE TRASTORNOS MUSCULOESQUELÉTICOS (TME) RELACIONADOS AL TRABAJO

#### RESUMEN

Los Trastornos Musculoesqueléticos (TME) Relacionados al Trabajo son enfermedades crónicas, causadas por el trabajo extenuante, sin pausas, con posturas incorrectas y movimientos repetitivos. Estudios muestran que portadores de enfermedades crónicas suelen tener una baja calidad de vida. Así siendo, el objetivo de esta investigación fue analizar la percepción de la calidad de vida de portadores de TME en el Estado de Sergipe, Brasil. La muestra fue compuesta por 17 trabajadores referenciados en los Centros de Referencia en Salud del Trabajador del estado citado, en el año de 2013, que fueron voluntarios y respondieron a un guión de entrevistas elaboradas por los autores de la investigación, y grabadas en audio. Los resultados fueron categorizados y descriptos a través del análisis de contenido, lo que permitió la observación de que todos los aspectos de calidad de vida se demostraron negativos. Se considera que los trabajadores, evaluados en esta investigación, poseen una percepción negativa de la calidad de vida, y que, estos aspectos influyeron, también negativamente, en el proceso salud y enfermedad de los individuos.

Palabras clave: Salud del trabajador. Trastorno Musculoesqueléticos. Calidad de vida.

#### REFERENCES

- 1. Teixeira MC. A invisibilidade das doenças e acidentes do trabalho na sociedade atual. R Dir Sanit. 2012; 13(1):102-31.
- 2.Luna, JS, Souza OS. Sintomas osteomusculares em taxistas de Rio Branco, Acre: prevalência e fatores associados. Cad Saúde Colet. 2014; 22(4):401-8
- 3. Santos, KOB, Almeida MMC, Gazerdin DDS. Dorsalgias e incapacidades funcionais relacionadas ao trabalho: registros do sistema de informação de agravos de notificação (SINAN/DATASUS). Rev Bras Saude Ocup. 2016;41
- 4.Oliveira, MM, Andrade SSCA, Souza CAV, Ponte JN, Szwarcwald CL, Malta DC. Problema crônico de coluna e diagnóstico de distúrbios osteomusculares relacionados ao trabalho (DORT) autorreferidos no Brasil: Pesquisa Nacional de Saúde, 2013. Epidemiol Serv Saúde. 2015; 24(2):287-96
- 5.Horta PM, Cardoso AH, Lopes ACS, Santos LC. Qualidade de vida entre mulheres com excesso de peso e doenças crônicas não transmissíveis. Rev Gaúcha Enferm. 2013; 34(4):121-9.
- 6.Diab KK, Jonsson BAG, Axmon, A. Work-related airway symptoms, nasal reactivity and health-related quality of life in female hairdressers: a follow-up study during exposure. Int Arch Occup Environ Health. 2014; 87(1):61–71.
- 7.Fernandes RCP, Assunção AA, Carvalho FMC. Tarefas repetitivas sob pressão temporal: os distúrbios musculoesqueléticos e o trabalho industrial. Ciênc Saúde Coletiva. 2010;15(3):931-42.

- 8. Alencar MCB, Ota NH. O afastamento do trabalho por LER/DORT: repercussões na saúde mental. Rev Ter Ocup Univ São Paulo. 2011; 22(1):60-7
- 9. Caetano VC, Cruz DT, Silva GA. O lugar ocupado pela assistência fisioterapêutica: representações sociais de trabalhadores com DORT. Fisioter Mov. 2012; 25:767-76.
- 10. Caetano VC, Cruz DT, Silva GA, Leite ICG, Carvalho SM. Processo saúde-doença: um estudo das representações sociais de trabalhadores com DORT. Saúde Colet. 2012;22 (3):1047-62.
- 11. Schlindwein VLDC. Histórias de vida marcadas por humilhação, assédio moral e adoecimento no trabalho. Psicol Soc. 2013; 25(2)430-9.
- 12. Brand, LC, Minayo-Gomes LC. Da tristeza à depressão: a transformação de um mal-estar em adoecimento no trabalho. Interface. 2008;12(26):667-76.
- 13. Toldrá RC, Daldon MTB, Santos MC, Lancman S. Facilitadores e barreiras para o retorno ao trabalho: a experiência de trabalhadores atendidos em um Centro de Referência em Saúde do Trabalhador SP, Brasil. Rev Bras Saúde Ocup. 2010;35 (121):10-22.
- 14. Bugajska J, Zolniercyk-Zeda D, Jedryka-Góral A, Gasik R, Hildt-Ciupińska K, Malińsk M, Bedyńska S. Psychological factors at work and musculoskeletal disorders: a one year prospective study. Rheumatol Int. 2013; 33(12):2975–83.
- 15. Silva TL, Dias EC, Pessoa VM, Fernandes LMM, Gomes EM. Saúde do trabalhador na Atenção Primária: percepções e práticas de equipes de Saúde da Família. Interface. 2013;17(45):301-14.
- 16. Neves RF, Nunes MO. Disability, everyday life and subjectivity: the narrative of workers with RSI/WMSD. Interface. 2009; 13(30):55-66.

17. Karino ME, Felli VEA, Mansano LM, Santana LL, Silva R, Teixeira RC. Cargas de trabalho e desgastes dos trabalhadores de enfermagem de um hospital-escola. Cienc Cuid Saude. 2015; 14(2):1011-18

18. Pessoa VM, Rigotto RM, Machado MFA, Machado MMT, Bezerra MG. Pesquisa-ação: proposição metodológica para o planejamento das ações nos serviços de atenção primária no contexto da saúde ambiental e da saúde do trabalhador. Interface. 2013;17(45):301-14.

**Corresponding author:** Giselle Santana Dosea. Endereço: Rua Laudicéia Ferreira Andrade, 65, Lot. Parque dos Coqueiros, Bairro Inácio Barbosa. Aracaju-SE. E-mail: giselledosea@hotmail.com

Submitted: 10/09/2015 Accepted: 31/10/2016