

LER/DORT AND ITS IMPACTS ON WORKERS' MENTAL HEALTH

LER/DORT E SEUS IMPACTOS NA SAÚDE MENTAL DOS TRABALHADORES

LER/DORT Y SUS IMPACTOS EN LA SALUD MENTAL DE LOS TRABAJADORES

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ABSTRACT

Analyze in the scientific literature the studies that have been produced on the impacts of CTD on the mental health of workers. This is an integrative review study whose data collection period was March to June 2022. Four studies were analyzed and accepted the inclusion criteria, all in Portuguese. Regarding the publication period of the selected articles, it was observed that two were from 2016, one in 2018 and one in 2020. After a thorough reading of the four selected studies, it is observed that RSI/WMSD generate a major impact on the lives of workers, interfering with both their physical and mental health.

Keywords: *LER; DORT; Mental Health.*

RESUMO


Analisar, na literatura científica, os estudos que vêm sendo produzidos sobre os impactos da LER/DORT na saúde mental dos trabalhadores. Trata-se de um estudo de revisão integrativa, que teve como período de coleta de dados março a junho de 2022. Quatro estudos foram analisados e aceitos nos critérios de inclusão, todos no idioma português. Em relação ao período de publicação dos artigos selecionados, observou-se que dois foram do ano de 2016, um de 2018 e um de 2020. Após a leitura minuciosa das quatro pesquisas selecionadas, observa-se que as LER/DORT geram um grande impacto na vida dos trabalhadores, interferindo tanto na saúde física como na saúde mental.


Descritores: *LER; DORT; Saúde Mental.*

RESUMEN

Analizar en la literatura científica los estudios que se han producido sobre los impactos de los TTA en la salud mental de los trabajadores. Se trata de un estudio de revisión integradora cuyo período de recolección de datos fue de marzo a junio de 2022. Se analizaron cuatro estudios que aceptaron los criterios de inclusión, todos en portugués. En cuanto al período de publicación de los artículos seleccionados, se observó que dos fueron del año 2016, uno del año 2018 y uno del año 2020. Luego de una lectura minuciosa de los cuatro estudios seleccionados, se observa que RSI/WMSD generan un impacto importante en la vida de los trabajadores, interfiriendo tanto en su salud física como mental.

Descriptorios: *LER; DORT; Salud Mental.*

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INTRODUCTION

Repetitive strain injuries and work-related musculoskeletal disorders (RSI/WMSD) are aggravated by the exacerbated use of musculoskeletal functions and their characterization is multifactorial, with pain as the main symptom, which can trigger temporary or permanent work disability¹.

According to the National Institute for Occupational Safety and Health of the United States of America, musculoskeletal injuries or disorders are caused or intensified, primarily, by sudden exertion or long-term exposure to physical factors of strength, vibration, repetition or inappropriate postures, affecting tendons, nerves, muscles, joints and cartilage².

Factors related to ergonomics are one of the main causes of these disorders. These ergonomic factors that pose a danger are: inadequate lighting, environmental factors, unsatisfactory temperatures, inadequate furniture, and outdated equipment³.

According to Pestana and Alencar¹, RSI/WMSD are the main reasons for disability in work activities, causing socioeconomic harm, as they are listed among the world's major public health problems.

Automated movements and postural fatigue cause psychic responses that impair the worker, such as tiredness, stress and depression. The intense working day and the repetition of movements have led workers to exhaustion. Due to the lack of adequate rest, the individual does not have more strength or courage to work better and with more willingness, resulting in serious problems, such as RSI/WMSD³.

According to research by Soares *et al.*⁴, in relation to data from the Notifiable Diseases Information System (SINAN), the survey defines that, between 2007 and 2016, 67,599 cases of RSI/WMSD were notified. During this period, the total number of records increased by 184%, from 3,212 cases in 2007 to 9,122 in 2016. Both the increase in cases and the volume in this period of time put the health of workers on alert. In fact, the national health study, in 2013, found that, in Brazil, 2.4% of the professionals (3,568,095 individuals over 18 years of age) interviewed reported having a clinical diagnosis of RSI/WMSD, of which, more than half, confirmed that the disease limits their daily activities, and for 13.1%, this limitation was excessive and, for 2.8%, very excessive.

Research related to mental health and work shows that the process and form of labor exploitation result in psychopathological and psychological characteristics in groups of professionals⁵.

The construction of this article is justified by the fact that there are many workers affected by RSI/WMSD worldwide. And during my experience as a resident physiotherapist, working with a multidisciplinary team, it made me reflect on the importance of analyzing the individual as a whole, because comprehensive care is very valuable. Having a more accurate view of these professionals, in relation to mental health, portrays the importance of this expanded care, not focusing only on the physical part.

This study is of great relevance because there are few in-depth articles on this topic. In view of this, there is a need to identify the impacts of RSI/WMSD on the mental health of workers, thus giving rise to the choice for the title.

In view of the above, this research aimed to analyze, in the scientific literature, the studies that have been produced on the impacts of RSI/WMSD on the mental health

of workers.

METHODS

This is an integrative review study that had March to June 2022 as the data collection period. The integrative review work is a more extensive methodology approach in relation to the reviews, allowing the inclusion of experimental and non-experimental articles for a complete understanding of the phenomenon evaluated⁶.

To carry out this integrative review research, the following steps suggested by the literature were addressed: 1) identification of the theme and selection of the hypothesis or guiding question for the elaboration of the integrative review; 2) establishment of criteria for inclusion and exclusion of studies/sampling or literature search; 3) definition of the information to be extracted from the selected studies/categorization of the articles; 4) evaluation of the studies included in the integrative review; 5) interpretation of the results obtained; and 6) presentation of the review/synthesis of knowledge⁷.

The study was based on the following guiding question: "What evidence does the scientific literature provide on the impacts of RSI/WMSD on workers' mental health? To answer this question, the use of the descriptors RSI, WMSD and mental health was obtained as a search strategy. All descriptors were used simultaneously and interconnected by the Boolean operator AND became eligible after consultations in the Health Sciences Descriptors (DECS) and *Medical Subject Headings* (MESH) databases.

For the selection of the research, the following inclusion criteria were constructed: articles published in the period from 2016 to 2022, with the languages Portuguese, English and Spanish, containing availability of the text in its entirety in the selected databases, which were: *Medical Literature Analysis and Retrieval System Online* (Medline), Latin American and Caribbean Health Sciences Literature (LILACS) and *Scientific Electronic Library Online* (SciELO). Editorials, review articles, theses, and publications that were repeated in the databases were excluded from the search.

The eligibility assessment was conducted by two researchers independently, based on the reading of the title and abstract of the studies. Subsequently, the selected studies were read in full to assess adherence to the theme. The articles chosen in this last phase were evaluated according to: 1) authors; 2) year of publication; 3) title of the study; 4) type of study; and 5) main results obtained.

RESULTS

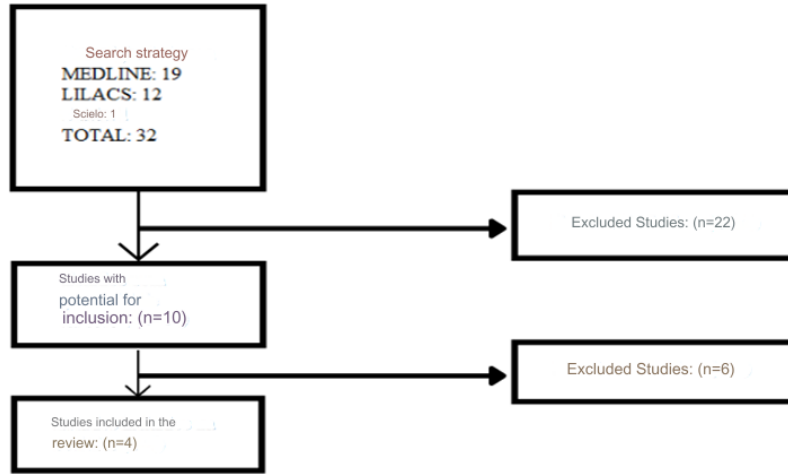
Initially, 32 articles were found. Subsequently, the titles of the studies that were pertinent to the theme were analyzed, leaving only 10 studies. For the next stage, the abstracts and articles that agreed with the proposed inclusion criteria were read, and these were accessed and evaluated in full.

Subsequently, after reading, only four studies showed coherence with the proposed theme^{8, 9, 10, 11}. The researches were examined through the main objective and scientific relevance, allowing to verify concordances and with the purpose of presenting the results and discussing the thematic axis.

Through a flowchart, the search strategy in the electronic databases and the number of articles found in each database were demonstrated, those that have potential

for inclusion and that were excluded after reading the title as well as exclusion after reading the abstract (Figure 1).

Figure 1 - Flowchart for the selection of articles.



Source: Prepared by the authors (2022).

All the articles chosen were in the Portuguese language. Regarding the publication period of the selected articles, it was observed that two were from 2016^{10, 11}, one in 2018⁹ and one in 2020⁸. When it comes to the type of study related to the articles, one is descriptive⁸, two are descriptive with a qualitative approach^{9, 10} and one is a case series¹¹, with a quantitative approach.

Table 1 - Characterization of the articles included in the integrative review, according to authors, year, title, type of article, and brief description of the results.

Authors	Year	Title	Methods	Key Results
Pereira J, Cesca D, Daronco LSE, Balsan LAG.	2020	Stress and musculoskeletal disorders in teachers.	Descriptive	A total of 146 participants participated in this research, of which 100% reported presenting discomfort, pain, paresthesia in some region of the body in the last 12 months. Cervicalgia (91.7%) and shoulder pain (86.3%) were the most prevalent. It was identified that the actions performed at work contribute to the onset of pain and stress.
Alencar MCB, Merlo ARC.	2018	Health in exchange for excellence: the suffering of nutrition attendants in a public hospital affected by RSI/WMSD.	Descriptive with a qualitative approach	A total of 19 women participated in the study, most of whom were professionals aged between 25 and 59 years. The length of work ranged from 3 to 10 years. 100% of the participants had some musculoskeletal symptom in various parts of the body, including wrists, hands, shoulders and lumbar spine. It was observed that the management method with excessive demands, lack of recognition and moral harassment contribute to suffering and impact on the disease processes.

Dosea GS, Oliveira CCC, Lima SO.	2016	Perception of quality of life in patients with work-related musculoskeletal disorders.	Descriptive with a qualitative approach	A total of 17 individuals participated in this study. The results were described and categorized through content analysis, which showed that all aspects of QoL were negative.
Dosea GS, Oliveira CCC, Lima SO.	2016	Musculoskeletal symptoms and quality of life of patients with work-related musculoskeletal disorders.	Case series with a quantitative approach	A total of 56 individuals participated in the study. The prevalence of involvement was in the upper limbs (87.2%), and most of the professionals (87.2%) stated the relationship between pain symptoms and work. It has been shown that the QoL of individuals with WMSD is reduced.

Source: Prepared by the authors, 2022.

DISCUSSION

Work-related diseases have generated a lot of concern among institutions and workers. In health care, the inability to work and back pain are frequent findings. As a result, the results become negative to health, related to the various forms and conditions of work, and can manifest in various organs of the body⁸.

RSI/WMSD are the main work-related disability disorders, which represent economic damage to society and high treatment expenses in many countries, being one of the major public health bottlenecks⁹. This corroborates another study¹⁰, as it reports that this disease generates many negative impacts and consequences in the economic and social part of a country.

In the study by Alencar and Melo⁹, the objective was to understand the connections between aspects of work organization and the health of nutrition attendants with RSI/WMSD. A total of 19 women participated in the study, most of whom were professionals aged between 25 and 59 years. The length of work ranged from 3 to 10 years. 100% of the participants had some musculoskeletal symptom in various parts of the body, including wrists, hands, shoulders and lumbar spine.

In another study¹¹, aspects of Quality of Life (QoL) and musculoskeletal symptoms of workers with WMSD in the State of Sergipe were analyzed. A total of 56 participants participated in the study. The prevalence of involvement was in the upper limbs (87.2%), and most of the professionals (87.2%) affirmed the relationship between pain symptoms and work, and all (100%) identified themselves as having WMSD. In this article, 87.9% of the cases were away from work and 76.9% had their working hours reduced.

In another article⁸, the objective was to detect the level of stress, the main complaints and symptoms related to pain and discomfort related to teaching. A total of 146 participants participated in this research. Of these, 100% reported experiencing discomfort, pain and paresthesia in some region of the body in the last 12 months. Cervicalgia (91.7%) and shoulders (86.3%) were more prevalent. 28% of the participants had to be absent from work due to musculoskeletal pain.

With regard to RSI/WMSD and its negative contribution to workers' mental health, the study by Alencar⁹ states that it is necessary not to individualize the disease,

the repercussion of which is the blaming of professionals instead of stimulating agendas about work and its effects on health. It is from this perspective that some professionals respond to certain requests as a way to achieve appreciation and recognition, intensifying their clinical conditions. Further weakening your mental health.

Corroborating this finding, according to the study by De Alencar and Ota¹², professionals on sick leave due to RSI/WMSD demonstrate negative repercussions on mental health, which can trigger mental disorders. They also reported suffering and exhaustion related to work overloads.

According to the study by Dosea¹¹, it is important to emphasize pain, as it can interfere with QoL. Pain is an abstract symptom, and its report can cause incredulity on the part of managers and colleagues, because the fact that they think they are faking illness to be absent from work still persists. This disability, generated by work, has repercussions on personal and professional life, causing a decrease in the worker's QoL. Individuals with WMSD feel depressed, distressed, and powerless.

In a study conducted in Finland, joint and separate associations of chronic pain, multi-site pain, and mental health with days of total and long-term absence among younger municipal workers. It has been seen that chronic and multilocal pain are associated with prolonged absences due to illness among these professionals, especially among women and individuals with poorer mental health¹³.

From this perspective, in another study¹⁰, it was observed that most professionals understand that their health status had repercussions on their social life, such as their relationship with family and friends. Most also perceived that their mental state interfered with work and their daily activities. The main factor of musculoskeletal disorders is pain, which is abstract, causing feelings of nervousness, discouragement and depression in professionals.

A research carried out in Brazil aimed to present the experiences of interventions in an interdisciplinary way in groups with individuals affected by RSI/WMSD. From the perspective of public health and interdisciplinary work, group activities have been used as a strategy for health education. Furthermore, group intervention aims to stimulate reflection on the reality experienced by its participants, to present collective strategies for facing challenges and to give each individual the opportunity to express their point of view, thoughts, opinions and promote exchanges between their peers¹⁴. Given this, the importance of health promotion for these individuals is clear.

Even though there are few studies addressing the repercussions of RSI/WMSD on workers' mental health, it is evident that this relationship exists. This is mainly due to the fact that pain, which is one of the main symptoms of RSI/WMSD, is subjective, making these affected professionals feel oppressed because there is no understanding in their work environment about what they are feeling. Thus, this study had the potential to address a theme little explored in the literature and compile evidence that presented the impacts on the mental health of these individuals. The limitation in the construction of this article was the small number of studies available in the literature on this topic.

From the reading of the selected articles, it is possible to observe the great impact on the mental health of workers who have RSI/WMSD.

CONCLUSION

The potential of this study was to address a theme that has been little explored in the literature and to compile evidence that showed the impacts on the mental health of workers affected by RSI/WMSD. The limitation in the construction of this article was the small number of studies available in the literature on this topic. However, after a thorough reading of the four selected studies, it is observed that RSI/WMSD have a great impact on the lives of these individuals, interfering with both physical and mental health.

The main physical impairments are in the upper limbs and spine. On the other hand, the most cited impacts on the mental health of workers with RSI/WMSD were: nervousness, discouragement and depression, with negative repercussions on QoL. Therefore, it is suggested that research should be carried out with the development of actions aimed at these professionals, in order to provide moments of welcoming and qualified listening.

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