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QUALITY OF LIFE OF ROAD TRANSPORT WORKERS

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ABSTRACT

Road transport professionals may be exposed to inadequate conditions and long working hours, poor diet, accidents and sedentary lifestyle. These conditions often result in damage to their health and diminished quality of life. This study aimed to evaluate and identify quality of life levels of road transport workers in a municipality in South Brazil. This is an exploratory, descriptive and quantitative study carried out with 50 road transport workers who answered the QVS-80 questionnaire. Data analysis was performed using the Statistical Package for Social Science program version 17.0. As results, quality of life levels were identified according to the domains evaluated by the instrument. The health domain obtained excellent score; physical activity and occupational environment domains, regular level; and the quality of life domain, excellent level. The mean total quality of life score was good. Although the participants classify their quality of life as "good", one can infer that they are not aware of the broad meaning of this term. Road transport professionals lack differentiated service by the professionals, mainly in actions of health promotion and prevention.

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INTRODUCTION

The work is directly connected with the life of the human being, and may prescribe the manner in which people connect with the world, since it allows for the insertion in society.The job can have multiple roles, since coincidentally it can enable personal growth, the opportunity of gaining material goods, personal and professional recognition, when performed under inappropriate conditions may cause damage to health, diseases, decreased life expectancy, and even lead to death (SILVA *et al*., 2013). In this context, Salerno (2001, p. 247) confirms that "work is a right safeguarded to citizens by the constitution. However, to work, the person needs to be healthy and keep his/her health. One cannot accept ethically and legally that the individual lose health or get sick for work".Under this perspective, there emerges the theme of occupational health, which, according to Law 8080/90, represents a set of activities that aims at, through the actions of epidemiological and sanitary surveillance, the promotion and protection of the health of workers (BRAZIL, 2016). Currently, the transformations in the world of work have pointed to the need for researcheson working conditions, health and disease of workers, in particular those who carry out road transport. Data indicate that more than 60% of transport in the country is carried out by means of road transport, which shows a high number of vehicles and, consequently, of drivers on the roads.According to the *Agência Nacional de Transporte Terrestre* (National Agency for Overland Transport), Brazil has a national fleet of cargo composed by 2,339,703 vehicles (ANTT, 2015). Road transport workers are a class of professionals of extreme importance for the country, since they are responsible for a large part of the Brazilian economic development, transporting and supplying the communities from north to south.The work environment of this professional is the truck cab, often with limited space, becoming their home for days and nights, besides being their location for food, among other activities. These characteristics of the work environment may expose the professional to climatic variations, pathologies of endemic regions, sedentary life, in

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addition to stress and tension generated by traffic and the deadlines for delivery of the goods. According to Alessi *et al*. (2015), road transport professionals are exposed to inadequate work conditions, poor nutrition, long days of work, accidents, violence, being an aggravating factor the psychological pressure of staying days, even months, away from the family. Life on the road can bring harm to their health, because they adopt unhealthy lifestyle habits, such as inadequate eating habits, physical inactivity, overweight, use of tobacco and alcohol, among others. These professionals can be considered a class in a situation of vulnerability and with little information about health promotion and disease prevention, as well as difficult access to medical care when necessary. Studies conducted by Masson *et al*. (2010) corroborate this perception, because it identified that truckers do not seek medical help, leaving their health "aside", once they reported not having time for self-care during their travels. In this sense, the conditions of the health-disease process directly affect the quality of life. Although the concept of quality of life covers issues that involve social, economic, physical and psychological aspects, a good health condition contributes positively and directly to the determinants of quality of life (CAMPOS *et al*., 2014).

According to the World Health Organization, quality of life is the individual's perception of his/her insertion in life, in the context of culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards and concerns. It involves spiritual, physical, mental, psychological and emotional well-being, as well as social relationships, such as family and friends, and health, education, housing, basic sanitation and other life circumstances (BRAZIL, 2016). Under these assumptions, Ferreira *et al*. (2013) indicate that the form of organization of labor can cause damage to quality of life and health of workers, such asextensive work days (continuous or with rare moments of rest for physical and mental recovery, which may contribute to the emergence of several pathologies).To ensure well-being and safety of subjects in their working environment, it is crucial to ensure greater quality and efficiency at work, in addition to greater contentment in their personal life. In this context, the quality of life at work is used as an indicator of human experience at the workplace and the level of satisfaction of the person performing it (GONÇALVES *et al*., 2013). Therefore, the present study aims to evaluate and identify levels of quality of life of road transport workers. Thus, the study was guided by the following question: "What is the level of quality of life of road transport workers allocated in a municipality in south Brazil?

MATERIALS AND METHODS

This is an exploratory, descriptive study, with quantitative character. The research subjects were road transport workers allocated in a municipality in south Brazil.The inclusion criteria were: E-category driver's license and, freelancers or employees, drivers of towing and sugarcane automotive vehicle with six to nine shafts, thus characterizing large vehicles according to the classification of the CTB- Brazilian Traffic Code (2006). The sample size was based on a sample calculation for finite populations with a confidence interval of 90% and a margin of error of 3%. The selection of participants was carried out in a random and simple way, avoiding typical systematic errors in its observation (HULLEY *et al*., 2015), thus, 50 subjects comprised the sample. The data collection was carried out in the period from July to August of 2017 on the premises of a cooperative of reference and support for these workers. The instrument used was the Questionnaire for the Evaluation of Quality of Life and Health (QVS-80), developed and validated by Leite *et al*. (2008).The QVS-80 allows diagnosingthe life-style, focusing on the presence of non-transmissible chronic diseases, as well as the assessment of sleep habits, practice of physical activities, labor activities and quality of life of workers. The questionnaire contains 80 questions, of which 67 are structured in Likert scale and the others refer to sociodemographic variables.This instrument evaluates four areas: health, physical activity, occupational environment and perception of the quality of life (LEITE *et al*., 2008). The data were stored and organized in a spreadsheet in Excel for Windows and subsequently analyzed in frequency and descriptive statistics (mean, standard deviation and coefficient of variation) with the aid of the program Statistical Package for Social Science (SPSS), version 17.0. The values of the Likert scale were summed and normalized to a scale of 0-100 points for each domain. The authors of the instrument classified the score of quality of life as: excellent (≥ 75 points); good (≥ 50 and <75 points); regular (≥ 25 and < 50 points); poor (< 25 points) (MENDES *et al*., 2014). The present study complied with the ethical precepts involving researches with human beings, as recommended by Resolution 466/12 of the National Health Council of Brazil. The research project was approved by the Research Ethics Committee of the Federal University of Santa Maria, under opinion 2.135.618.

RESULTS

The participants were 50 road transport workers, being 100% of the male sex. The mean age was 40 years, with minimum age of 24 years and maximum of 66 years. Of the respondents, 52% have incomplete/complete primary education and 92% were married. In relation to work, 42% reported time of occupation in the company of one through five years, 96% work in alternating shifts in the morning, afternoon and night and 92% reported remaining seated for more than seven hours a day. Of the workers, 78% say they feel well at work and 44% reported having little opportunity for leisure. As for the quality of sleep, 48% rated it as good; however, the other 48% classified it as regular/poor. Concerning the hours of sleep, 38% reported sleeping 5 through 6 hours/night. The BMI (body mass index) was calculated from height and weight reported by the participants, with an average of 29.8 and coefficient of variation of 12.54, which corresponds to the average homogeneous in relation to the data. Of interviewees, 90% claimed never having smoked and 76% declared not drinking alcoholic beverages during the week. Regarding health problems, 60% mentionednot having known diseases; however, 18% reported being hypertensive. In relation to perceived pain, 42% have pain in the spine and 24% in the legs or feet. Of the total number of interviewees with pain, 88% stated that,even feeling it, they do not cease to work. As regards the practice of physical exercises, 64% of workers do not perform any type of activity and 100% say that the company does not offer occupational gymnastics. About family life, 58% classified it as excellent and 36%, as good. When questioned about their health, 72% of workers reported it as good and 20%, as regular. In relation to quality of life, 60% guarantee a good quality of life, but 24% assessed as regular or bad. Furthermore, 54% of the respondents reported having, at times, negative feelings, such as bad mood, despair, anxiety and depression, 16% say that these feelings are

frequent and/or very frequent. The calculation of the variables available in the instrument revealed the level of quality of life, according to the domains evaluated by the QVS-80 instrument.

Table 1. *Scores* of the domains of quality of life assessed by the QVS-80

DOMAINS	SCORE	MEANING
Health domain	82	Excellent
Physical activity domain	35	Regular
Occupational environment domain	49	Regular
Quality of life domain	76	Excellent
Total of quality of life	61	Good

DISCUSSION

The present study aimed to evaluate and identify levels of quality of life of road transport workers. The data analysis shows that 100% of the participants were male and 52% had incomplete primary education. This information corroborates a survey conducted by the National Confederation of Transport, which obtained similar results, with 99.8% of male workers and with the majority (58%) of the professionals with low level of education (BRAZIL, 2016). A study conducted by Notto *et al*. (2017) corroborates these findings, because it showed that more than 50% of interviewees attended up to the basic education. For Ruas *et al*. (2010), the profession of trucker/cargo driver became a great opportunity for employment for the population who had little access to education.Thus, several studies have portrayed the low schooling of these workers, indicated as an important determinant of the health context of a subject (ALESSI *et al*., 2015). With respect to work, most respondents reported time of occupation in the company from one to five years, with alternating shifts between morning, afternoon and evening. Almost all of these reported remaining seated for more than seven hours a day. In the face of these data, the profession of road transport can be considered exhausting, both physically as mentally. Narciso *et al*.(2017) affirm that long days of work and a lot of time in the sitting position can alter biological rhythms and reduce psychomotor reflexes. These characteristics may offer risks and damage to the health of truckers. In the present study, 48% of those surveyed reported good sleep quality, while 52% rated their sleep as regular/poor. In relation to the hours of sleep, the majority reported sleeping from five to six hours/night. Narciso *et al*. (2017) relate the excessive workload and the demand to meet delivery times of loads cause tiredness, fatigue and excessive working hours. Thus, sleep is impaired in function of the reduced time to rest.

Sleep and rest become necessary when the objective is to provide a work of quality and excellence, which is of utmost importance in the day routine of lorry drivers. In the point of view of Alessi *et al*. (2015), truck drivers have few hours to sleep and do not have adequate rest by the deprivation of the necessary comfort for a satisfactory restful night of sleep, because their bed is routinely the truck cab, where they often do not have silence or adequate light, being an ergonomically unstable environment. Studies have shown that workers with reduced sleep time are likely to have increased BMI (body mass index). In such cases, the risk of obesity increase in individuals who sleep less than six hours/night, as it may interfere in appetite and satiety, thus favoring the obesity and overweight (KRAUSE *et al*., 2014). This study also identified these data, since the mean BMI of the interviewees corresponds to the classification of overweight. According to Pinho *et al*. (2011), the BMI is used as a guiding factor in the quantification for overweight and obesity, because it makes an association between weight and height of the individual. According to a survey conducted by the National Confederation of Transport (BRAZIL, 2016), 34.9% of truckers presented obesity and 42.3%, overweight.The excess weight is currently considered a public health problem, occupying the third place in the world ranking as cause of death in developing countries (DEL DUCA *et al*, 2012). In addition to obesity and overweight, the use of tobacco and alcohol also favors the occurrence of non-communicable chronic diseases (Krause *et al*., 2014). In the present study, most participants claim not smoking nor drinking alcoholic beverages during the week. This datum differs from the findings of other studies, such as of Alessi *et al*.(2015), which suggest that truckers have harmful life habits, such as: tobacco, alcohol, drugs, unhealthy nutrition, lack of physical activity, insufficient time to rest, among others. This survey found that 24% of the participants state consuming alcoholic beverages during the working week. Alessi *et al*. (2015) highlight the importance of awareness campaigns that warn truckers about the risk of alcohol dependence and other types of substances; therefore, its consumption can influence their involvement in road accidents.

For Ruas *et al*. (2010), this occupational activityis often permeated by some bad aspects that contribute to the increased risk of cardiovascular diseases, which corroborates the data from this study, which identified that 18% of respondents are hypertensive. According to Notto *et al*. (2017), cardiovascular diseases are more prevalent in road transport workers, with a view to work routine and factors related to the profession. Regarding the occurrence of pain, participants refer complaints in the spine and legs/feet, however, declare that, even with pain, they did not stop working. Studies by Pereira *et al*. (2014) showed worrying data in relation to the acquired diseases, drawing attention that most truckers reported musculoskeletal problems, in particular in the spine. The practice of physical exercises can minimize the occurrence of musculoskeletal pain and diseases. Nevertheless, most drivers in this study do not practice any kind of physical activity. A study conducted by Rocha *et al*. (2015) found similar results, whichidentified most truckers as sedentary. They have a great tendency toward a sedentary lifestyle, because driving has a small energy expenditure.Moreover, when there is free time, these professionals use it to rest, not performing physical activities (Krause *et al*., 2014). One of the strategies to avoid the sedentary lifestyle is the occupational gymnastics, however, in this study, no worker has access to this. For Mendes *et al*. (2014), the occupational gymnastics is a program of quality of life, health promotion and leisure activities performed during the working hours. In addition to being considered an ergonomics service that uses physical activities for the prevention of repetitive work and/or disorders related to work. Many respondents stated that, even without leisure opportunities,they feel well at work and classified the company atmosphere as good. The choice for the profession, in addition to being a means of income, in many cases, results form a childhood dream or inheritance passed on from father to son. This datum corroborates the research by Pereira *et al*. (2014), in which the majority of the truckers responded being happy at work and being pride of the profession inherited from the family. Fulfilled and happy professionals in the work environment are more likely to be healthier, having in view that the work reaches all aspects in human life: spiritual,

emotional, physical and intellectual. It is notorious that health is an important resource for social, economic, personnel and quality of life development. Political, economic, social, cultural, environmental, professional, behavioral and biological factors can promote or hinder health (BRAZIL, 2002). In the present study, 60% of respondents reported not having health problems.Nonetheless, it is possible that they do not access the services routinely for a diagnosis. Studies conducted by Masson *et al*. (2010) corroborate this perception, because they identified that truckers do not seek medical help, leaving their health "aside", because they reported lacking time for self-care during travels. In this sense, human health-related activities are gaining greater adherence of this public, but their low demand for primary care is still worrying. Many men seek resources only in emergencies or mid/high-complexity situations (ROCHA *et al*., 2015).Studies that have compared the health between genders showed that men are more vulnerable to diseases and die earlier. This finding can be explained by the fact that men seek medical care less frequently than women do (BRAZIL, 2008).

The majority of the interviewees, when questioned, rated their health as good, although 20% consider their health regular. However, 36% of respondents are dissatisfied/very dissatisfied with the access to health services.Regarding the health of road transport professionals, in Brazil, few campaigns and services focus on this population. These workers require differentiated service of the Unified Health System (UHS), since the labor dynamics and the fact of often being in unknown places hinder the adherence to the health care system of Basic Health Units (BHU).In this way, health professionals find a challenge to build strategies in order to insert these workers in actions for health promotion and disease prevention, of both physical as psychological causes (ROCHA, 2015). Symptoms that may reveal mental illnesses are present in the routine of many truckers. In this study, most respondents reported having negative feelings, such as bad mood, despair, anxiety and/or depression. A study conducted by Resende *et al*. (2010) also highlighted anger, anxiety and nervousness, revealing that the stress is present in the life of the Brazilian truckers. Another survey conducted by Pereira *et al*. (2014) observed that most lorry drivers reported having stress. The authors identified that one of the biggest causes is that they miss their family, considering that this profession hardly allows scheduled and precise dates to return home, thus hindering the family life. When questioned about family life, the majority of respondents rated it as "excellent". According to Alessi *et al*. (2015), the occupation interferes in family and social lives of the driver. A research conducted by Goulart Júnior *et al*.(2013) identified that the positive relationship between family and work is capable of offering benefits, for both the employee as the company, since it can provide greater satisfaction and motivation in employees regarding the activities carried out.

Having well-established family ties, the tendency is a satisfactory quality of life (QOL) of drivers. In this study, most interviewees reported a good QOL. A study conducted by Silva *et al*. (2013) found similar results; however, it found that truckers presented with bad aspects in the areas of pain, vitality and mental health. The calculation of the scores of the QVS-80 instrument identified the levels of quality of life in each domain, with the one related to health as excellent. This field covers anamnesis and the existence of chronic diseases, as well as life style and habits. The excellent classification relates to good sleep quality mentioned by participants, in addition to the low consumption of alcohol and tobacco. The second domain, whichcorresponds to physical activity, obtained regular level, since it identifies the practice of physical activity during leisure time, outside work environment and time. In this study, most respondents do not practice any kind of physical exercise. The third domain, related to the occupational environment, presented regular score, considering the fact that 100% of the interviewees reported that the company does not offer occupational gymnastics. The final area that covers the quality of life obtained excellent level. This evaluates the perception of quality of life on personal, collective and autonomy characteristics. This result occurred because around 70% of drivers claim, in their perception, having a good quality of life. The total average of quality of life resulting from the sum of all domains of the instrument QVS-80 was good. In the point of view of Alcântara *et al*. (2016), the quality of life is multifactorial and may be defined as the level of well-being and personal fulfilment in the life of a subject. For a high degree of QOL, at least the basic needs of a citizen must be met. The cork conditions and life habits favor or not the promotion of QOL, acting on the physical and mental comfort of a person. The quality of life at work enhances the implementation of actions associated with the satisfaction and motivation of the worker and, in the physical part, by means of actions relating to the conditions of the working environment and health promotion (GONÇALVES *et al*., 2013). As Masson *et al*. (2010), providing a model of quality of life is crucial to the balance between work and leisure.When thinking of a life with quality, this is not based only on the biological survival, but in the practice of welfare in all life areas, domains and aspects, experienced by the human being.

Conclusion

The present study aimed to contribute to raising awareness of workers about health issues, and as an aid to improve their habits, consequently, the quality of life at adequate levels. In addition to providing subsidies to encourage them to practice healthy living allied with labor activities. Considering the results, although participants classified their quality of life as "good", one can infer they do not have a comprehensive knowledge of the meaning of this term. The concept of quality of life encompasses many aspects, such as: satisfaction in family life and at work, expectations, health status, leisure activities, among others, mentioned during the research. Furthermore,due to their professional routine, the workers keep not so healthy life habits, with almost all sedentary. Another alarming fact concerns the difficult access to health services reported by some respondents. Road transport professionals require differentiated service from Unified Health System, since the working routine requires a differentiated demand for better adherence to this service. Currently, in Brazil, few campaigns focus on the health promotion and disease prevention for this class of workers, emphasizing the need to encourage the change of habits through health education programs. An alternative would be the creation of public health policies for workers in general, but particularly for this class of workers, taking into account their differentiated working routine.

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