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Factors associated with the work capacity of motorcycle taxi drivers

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Abstract *This study evaluated the work capacity of motorcycle taxi drivers and its association with sociodemographic and work and quality of life factors. This is a cross-sectional study realized with 392 motorcycle taxi drivers that used a form containing demographic and labor data, Work Capacity Index, the WHOQOL-bref. We employed a descriptive and inferential analysis. The moderate/good prevalence work capacity was 51%. Motorcycle taxi drivers aged 40 years and over recorded a 31% increase in low work capacity (PR: 1.31; 95% CI: 1.07; 1.61) compared to younger workers. Motorcycle taxi drivers aged 21-29 and 30-39 years evidenced a higher median for absenteeism ($p = 0.023$) and self-prognosis regarding future work capacity ($p < 0.001$). A greater proportion of diseases diagnosed among those with five or more years of service ($p = 0.003$) and of self-prognosis in those with five years or less of service ($p < 0.001$) was observed. Motorcycle taxi drivers with moderate/good capacity showed better perception of quality of life in the physical realm ($p < 0.001$). Work capacity of motorcycle taxi drivers was associated with higher exposure to noxious factors that affect their quality of life and work force. Priority public policies and educational actions are required to minimize this exposure.*

Key words *Work capacity evaluation, Working conditions, Quality of life*

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Introduction

Motorcycle taxi service is a new branch of urban passenger transport, generally available on an informal basis[1]. Motorcycle taxi drivers' work capacity can be influenced by diverse factors, including their working conditions, occupational diseases, direct or indirect work-related accidents, as well as worker's overall life conditions.

Work capacity refers to the worker's ability to perform tasks according to work demands, health status and physical and mental abilities[2]. It is an important indicator of sustained work force and worker's health conditions by identifying aspects for the maintenance of the work activity, such as harm to physical health conditions, psychosocial well-being, individual competence and working conditions/organization. Thus, maintaining the capacity and work force positively influences the determination of health, general well-being and job satisfaction, which may result in increased productivity, lower absenteeism and social costs resulting from disease care and withdrawal from work activities due to disabilities acquired as a result of the activity performed[3].

Motorcycle taxi drivers are known to be exposed to diverse risks that may affect their work capacity, health potential and quality of life, since they often submit to extensive working hours, suffer time pressure and demand for productivity. They work outdoors and are exposed to high and low temperatures, winds and environmental pollution[4-6]. In addition, long working hours and poor working conditions can result in physical illness and discomfort, occupational stress, accidents, decreased work capacity and total or permanent withdrawal from activities[4].

The profession is regulated in Brazil by means of Federal Law nº 12.009/2009, which assigns to motorcycle taxi drivers the competence of passenger transport[7], and by Resolution nº 410/2012 of the National Traffic Council, which makes it compulsory to hold specialized courses intended for these professionals[8]. In addition, because they are predominantly informal, these workers are not protected by the Consolidation of Labor Laws (CLT) in case of traffic accidents and sickness[9]. Therefore, some of them organize themselves in associations or unions to fight for individual and collective professional rights, as well as for the implementation of improvements in health and life conditions.

Moreover, since it is a recently regulated labor activity, invisibility of this professional category in the national and international scientific literature[10] is clear. While some specificities of their work are described, work capacity and quality of life, as well as factors that can affect them are still little known.

It is relevant to investigate these gaps in view of the fact that motorcycle taxi drivers are part of an informal labor category, which requires a great deal of attention from collective health. The lack of work permit and access to labor and social security rights obtained through insertion in Social Security through the National Institute of Social Security (INSS) prevent these professionals from enjoying the protection of labor legislation and, if exposed to poor working conditions, illness and/or accidents, may have reduced work capacity and negative consequences on the quality of life.

In view of the above, this study aimed to evaluate the work capacity of motorcycle taxi drivers and their association with sociodemographic, labor and quality of life factors.

The identification of these results is extremely relevant for the proposed educational measures in health and for the definition of safety and health protection public policies for these professionals, which may contribute to reduced work-related morbimortality and the promotion of improved quality of life of motorcycle taxi drivers.

Methods

This is a cross-sectional study carried out with motorcycle taxi drivers registered at the Jequié Motorcycle Taxi Drivers Association (AMOJE), Bahia, Brazil.

For the calculation of the minimum sample size of 340 participants, we considered the prevalence of good/excellent work capacity of 89% for workers under similar working conditions[11], error accuracy of 5%, confidence level of 95% power of 80% and 10% loss additional factor. A systematic random sample was established, where the selection of the participants was established by draw, considering a sampling interval of five. For the draw, a list of the professionals was established by alphabetical order, in Arabic numbers and with their respective addresses. Up to three search attempts were made for each participant and the motorcycle taxi driver before and after the sampling interval was considered as replacement criteria. When none of them were found after the attempts, a sample loss was characterized.

Inclusion criteria were being registered at AMOJE, 21 years of age and over and working as a motorcycle taxi driver for at least one year. Those who were absent from this activity for more than one month in the 12 months prior to data collection were excluded.

The sample was completed in 400 participants, and 8 women were recruited. However, we decided to analyze only men in order to avoid gender bias, who made up the sample of this study with 392 participants.

Data were collected individually at motorcycle taxi points of service by 15 trained interviewers, using forms consisting of four thematic blocks: socio-demographic data (gender, age, marital status, education, self-reported ethnicity/skin color and income); work characteristics (other work/occupation, length of service as motorcycle taxi driver, Social Security contributions, number of weekly working days, number of daily shifts and work hours); work capacity; and quality of life. The ethnicity variable was categorized as black (black and brown) and non-black (white, yellow, and indigenous)[12].

Work capacity was evaluated by the translated version adapted to Brazilian Portuguese of the Work Capacity Index (WCI)[2], which establishes a predictive measure of the physical and mental work requirements, of health status and workers' capacity to perform work activities. WCI's construct comprises seven realms (Chart 1)[2], as follows:

Overall WCI score was calculated by adding the score of the questions of each realm, ranging from 7 (worst index) to 49 (best index), and was classified as low (7-27), moderate (28-36), good (37-43) and excellent (44-49). Motorcycle taxi drivers with low WCI were the group with the highest exposure and those with moderate and good WCI (categorized with moderate/good work capacity) were considered as the least exposed and reference group in the analyses. Clustering was based on the fact that workers with moderate and good capacity are subjected to similar working conditions[2].

Quality of life was assessed by the World Health Organization quality of life scale (WHOQOL-bref), a tool validated by The World Health Organization Quality of Life Group (The WHOQOL Group)[13]. It contains 26 facets, and the first one refers to the overall quality of life, the second to satisfaction with health and the other 24 are the physical, psychological, social relationships and environment realms. Each facet of the WHOQOL-bref consists of five Likert response items whose scores range from 1 to 5, and questions 3, 4 and 26 have their scores adjusted inversely from 5 to 1. Scores were calculated according to the steps of data verification and cleaning, computation of the facets' means, measurement of the scores of each realm and conversion of scores to a 0-100 scale[13].

We used the Statistical Package for the Social Sciences (SPSS), version 20.0. We resorted to descriptive and inferential statistics. In the bivariate analysis, we adopted Fisher's Exact and Pearson's Chi-Square tests and we estimated the prevalence, crude prevalence ratio (PR) and their respective confidence intervals (95% CI). Variables with a p-value ≤ 0.20 in the bivariate analysis were entered in the multiple analysis, which was performed using the robust Poisson Regression Model. This analysis adopted the backward procedure. To determine the best final model, different cutoff points were tested for the variables, and the one with the lowest Akaike Information Criterion (AIC) was selected.

We tested the normality of the WHOQOL-bref results and the WCI realms by the Kolmogorov-Smirnov test. Mann-Whitney/Wilcoxon or Kruskal-Wallis tests were used to compare non-parametric data, and the Mann-Whitney test with Bonferroni correction was used when *post hoc* analysis was necessary. Statistical significance was set at 5%.

In compliance with Resolution of the National Health Council Nº 466, of December 12, 2012, the Research Ethics Committee of the State University of Southwest of Bahia approved the study.

Results

Among the 392 motorcycle taxi drivers recruited, with regard to sociodemographic variables, there was a prevalence of males (392, 98.0%), age range 30-39 years (169; 42.2%), mean age was 33.4 years (SD 9.4; Min = 21 and Max = 65), married/common-law marriage (224; 56%), full elementary education (190; 47.5%) and self-referenced black ethnicity/skin color (221; 55.2%). Regarding monthly income, 174 (43.5%) reported receiving four or more minimum wages, an average of R$ 2,380.25 (SD 649.6, Min = 1,000.00 and Max = 4,000.00).

Regarding work characteristics, highlighted are motorcycle taxi drivers with no other work/occupation (346; 86.5%), five or more years in the profession (254; 63.5%), non-taxpayers of Social Security (346; 86.5%), working 6-7 days

Chart 1. Distribution of the realms of the Work Capacity Index according to the number of questions and their scores[2].

Realms	Number of questions	Response scores
Current work capacity, compared to the best lifetime stage	1	0-10 (value assigned in the questionnaire)
Work physical and mental requirements	2	2-10 (points weighted according to the nature of the work)
Current diseases diagnosed by a physician	1 (list with 56 diseases)	1-7
		5 diseases = 1 point
		4 diseases = 2 points
		3 diseases = 3 points
		2 diseases = 4 points
		1 disease = 5 points
		No diseases = 7 points
Estimated work capacity loss due to diseases	1	1-6 (value assigned in the questionnaire; worse value chosen)
Absenteeism due to diseases	1	1-5 (value assigned in the questionnaire)
Self-prognosis about working capacity 2 years from now	1	1, 4 or 7 (value assigned in the questionnaire)
Mental resources	3	1-4
		Sum 0-3 = 1 point
		Sum 4-6 = 2 points
		Sum 7-9 = 3 points
		Sum 10-12 = 4 points
Overall WCI score		7-49 points

a week (335; 83.8%), a daily workload of 8 or more hours (344; 86%), with a mean of 11.7 daily worked hours (SD 2.6; Min = 6 and Max = 16). Most worked two or more daily shifts (313; 78.2%).

As for work capacity, 196 (49.0%) motorcycle taxi drivers were categorized with low capacity, 195 (48.8%) with moderate capacity and 9 (2.2%) with good capacity, identifying 204 (51%) with moderate/good capacity. No motorcycle taxi driver with excellent WCI was identified.

Only male motorcycle taxi drivers (N = 392) were studied to verify the associations, showing a low work capacity prevalence (49.0%).

In the bivariate analysis, no statistically significant association was found between low work capacity and marital status, schooling, self-declared ethnicity/skin color, monthly income, motorcycle taxi driver length of service, number of days worked per week and number of daily shifts. There was a higher prevalence of low work capacity in motorcycle taxi drivers in the 40 years or older age group (p = 0.014) and who worked eight hours or less per day (p = 0.029) (Table 1).

The results obtained by the robust Poisson Regression Model showed that the most advanced age group, 40 years old or older had an association with low work capacity, that is, older motorcycle taxi drivers showed a 31% increase in low work capacity (PR: 1.31; 95% CI 1.07; 1.61). Although no statistically significant association was found between low work capacity and marital status, black ethnicity/skin color and daily work hours, married motorcycle taxi drivers showed an increasing trend of low work capacity (PR: 0.86, CI 95%: 0.70; 1.04), as well as blacks (PR: 1.17, 95% CI: 0.93; 1.48) and those who worked eight hours or more per day (PR: 1.07, 95% CI: 0.80; 1.43) (Table 2). When testing different cutoff points for age, we found that those in the 50 years and over age group evidenced a 61% increase in low work capacity, with a statis-

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tically significant association (PR: 1.61, 95% CI: 1.01; 2.57; AIC 666.0287).

The Kolmogorov-Smirnov test revealed no normality for the WHOQOL-bref realms: physical (1.815; p = 0.003), psychological (1.998; p = 0.001), social relationships (4.123; p < 0.001) and the environment (1.904; p = 0.001). The same was observed for WCI realms: current work capacity (3.585; p < 0.001), physical and mental requirements (4.476; p < 0.001), diagnosed diseases (4.841; p < 0.001), work incapacity (6.809; p < 0.001), absenteeism (5.765; p < 0.001), self-prognosis (7.105; p < 0.001) and mental resources (6.286; p < 0.001).

Evaluation of the medians of the different WCI realms according to the age group (Table 3) showed no statistically significant association between age group and current work capacity, physical and mental requirements, diagnosed diseases, work incapacity and mental resources. However, there was an association between age group and absenteeism and self-prognosis. In the post-hoc analysis, we found that motorcycle taxi drivers in younger age groups, namely, 30-39 years of age differed significantly from the other groups regarding illness-related absenteeism (p = 0.023). The same was observed for self-prognosis, since motorcycle taxi drivers in the 21-29 years age group had higher capacity to perform the same task from here to the future (p < 0.001) in relation to the others in more advanced age groups.

Regarding the WCI realms according to length of service in years (Table 3), there was no statistically significant association with the realms of current work capacity, physical and mental requirements, work incapacity, absenteeism and mental resources. Motorcycle taxi drivers with a length of service equal to or greater than five years had a higher proportion in the realm of diagnosed diseases (p = 0.003) and those with a length of service of less than five years had a higher median for self-prognosis (p < 0.001).

Regarding quality of life, the physical realm obtained a median of 42.9 (Min = 14.3 and Max = 75.0), the psychological realm, a median of 41.7 (Min = 16.7 and Max = 70.8), the median social relationships, a median of 66.7 (Min = 16.7 and Max = 91.7) and the realm environment, a median of 28.1 (Min = 9.4 and Max = 53.1).

The medians obtained for the realms of quality of life according to the motorcycle taxi drivers' work capacity (Table 4) showed that the group with moderate/good capacity had better perceived quality of life in the physical realm compared to the one with low capacity (p < 0.001). There was no statistical significant difference between the medians of the other realms of QoL according to the work capacity.

Discussion

The sample consisted predominantly of young black, married adults with low schooling. These findings confirm the results of national and international studies[4,9,14,15] and it should be noted that the predominance of this ethnicity/skin color may be associated with the performance of the research in a region strongly marked by African descent origin[16].

In this study, the most expressive percentage of motorcycle taxi drivers was in the 30-39 years age group and with a moderate/good work capacity. However, the bivariate analysis evidenced a higher prevalence of low work capacity (60.0%) among those aged 40 years and over. Despite being adults in productive working age, these data reveal the aging tendency of the work force of these professionals.

Work capacity has also decreased in productive age, determining the need to adopt measures to improve physical conditioning and other health conditions, as well as to reduce work's physical and psychosocial requirements[2,10]. Age affects work capacity, as its progress curbs the work force and increases the probability of becoming ill, reducing the capacity to respond to overwork and to establish changes in living habits to improve health and work conditions[17]. This finding was also observed in this study, since low capacity had a higher prevalence among middle-aged adult motorcycle taxi drivers, especially among those aged 50 years and over (61%).

In addition, moderate/good capacity was observed especially among the youngest, aged 21-29 years (55.5%), and it is known that age is an individual predictive factor of work capacity[18,19], since young adult workers tend to have better health and physical-functional capacity conditions than older adults.

Poor working conditions, long work hours and overwork, together with a longer time of exposure to the activity can generate work stress and neurophysiological diseases, affect mental efficiency and motivation for work[20] and, consequently, result in declining work capacity. Thus, preventive interventions must be implemented in order to promote the maintenance of work capacity and occupational health of motorcycle

Table 1. Distribution of low capacity for work according to the sociodemographic and labor characteristics of motorcycle taxi drivers.

Variables	n (%)	Prevalence	p-value*	PR	CI 95%
Sociodemographic characteristics					
Age group (in years)					
21-39 (297)	135 (34.4)	45.5	0.014	1.00	-
40 years and over (95)	57 (14.5)	60.0		1.32	0.97-1.80
Marital status					
Without a partner (174)	93 (23.7)	53.5	0.114	1.00	-
With a partner (218)	99 (25.3)	45.4		0.53	0.64-1.23
Schooling					
Illiterate/Primary School (201)	104 (26.5)	51.7	0.262	0.89	0.67-1.18
Secondary School/Higher Education (191)	88 (22.4)	46.1		1.00	-
Self-declared ethnicity/skin color					
Non-black (121)	53 (13.5)	43.8	0.171	1.00	-
Black (271)	139 (35.5)	51.3		1.35	0.88-2.08
Monthly Net Income**					
≤ 4 minimum wages (110)	53 (13.5)	48.2	0.844	1.00	-
> 4 minimum wages (282)	139 (35.5)	49.3		0.48	0.74-1.40
Work characteristics					
Work time as motorcycle taxi driver (years)					
< 5 (142)	66 (16.8)	46.5	0.455	1.00	-
≥ 5 (250)	126 (32.1)	50.4		1.08	0.81-1.46
Weekly work days					
≤ 5 (64)	29 (7.4)	45.3	0.521	1.00	-
6-7 (328)	163 (41.6)	49.7		1.10	0.73-1.63
Daily working hours					
≤ 8 (56)	35 (8.9)	62.5	0.029	1.00	-
> 8 (336)	157 (40.1)	46.7		1.11	0.635-1.95
Daily work shifts					
1 (87)	48 (12.2)	55.2	0.190	1.00	-
≥ 2 (305)	144 (36.7)	47.2		0.86	0.62-1.20

PR: Prevalence ratio; CI 95%: Confidence Interval of 95%. * P-value obtained by Fisher's exact test or Chi-Square test. ** Minimum wage at the time of data collection: R$ 678.00.

taxi drivers since joining the profession, in order to avoid complications resulting from work capacity impairment.

The multivariate analysis evidenced the association between only the most advanced age and low work capacity, even if the motorcycle taxi driver is still in productive working age. This result evidences the need for effective interventions by the worker's health and safety bodies, especially the nursing and medical staff, with the purpose of minimizing the behavior that can be modified that are determining sickness and decreased work capacity.

Motorcycle taxi drivers in the 21-29 years and 30-39 years age groups had higher medians of absenteeism due to disease. Absenteeism is characterized by the worker's absence in the work activities and may be due to the process of (psychosocial and biophysiological) physical wear/illness arising from the working conditions, which culminate in the worker's withdrawal from work commitments to recover physically and/or psychically[21].

Younger workers tend to overestimate their ability to work because they rely on their vitality to meet the work's physical and psychosocial requirements[22]. However, greater exposure to noxious factors resulting from active and very demanding work requires high control to deal with time pressure and productivity, high concentration in motorcycle driving, constant interruption of tasks and the need to wait for the next client, apart from urban violence and, especially, traffic, which can result in illness, decreased work capac-

Table 2. Association between predictive variables and the low work capacity of motorcycle taxi drivers.

Variables	PR	CI 95%
Sociodemographic characteristics		
Age group (in years)		
21-39 (297)	1.00	-
40 years and over (95)	1.31	1.07-1.61
Marital status		
Without a partner (174)	1.00	-
With a partner (218)	0.86	0.70-1.04
Self-declared ethnicity/skin color		
Non-black (121)	1.00	-
Black (271)	1.17	0.93-1.48
Work characteristics		
Daily working hours		
≤8 (56)	1.00	-
>8 (336)	1.07	0.80-1.43
	AIC	
	662.7902	

PR: Prevalence ratio; CI 95%: Confidence Interval of 95%; Robust model; *p-value < 0.05. AIC: Akaike Information Criterion.

ity and absenteeism, even among young drivers, as observed in this study.

Contrary to the expected effect of harmful workday's exposure on work capacity, the adjustment of the final model found an upward trend of low capacity among those who worked eight hours or more per day, although bivariate analysis had identified this expected effect among those who worked eight hours or less per day. This relationship between the duration of the workday and lower work capacity must be better investigated and the analysis of specificities of the work of motorcycle taxi drivers can assist in the understanding of these apparently unexpected results[10].

Studies have shown that population groups of workers who are subjected to non-standardized shifts, long working hours, workers with low socioeconomic status and unfavorable occupational psychosocial characteristics are more susceptible to work-related illness[23,24], as in the case of motorcycle taxi drivers[10].

Health problems, such as stress, muscle fatigue, musculoskeletal complaints and injuries resulting from accidents are constantly related to the work of motorcycle taxi drivers[4] and can greatly affect work capacity. Thus, traffic and work-related managers and bodies, as well as motorcycle drivers themselves must be sensitized about the risks to which these professionals are exposed and must aim to promote, protect, maintain and help recover the health of these workers.

Even with absenteeism observed among the youngest, motorcycle taxi drivers in the 21-29 years and 30-39 years age groups showed greater willingness regarding self-prognosis as to the capacity to perform the same work in the future. This finding corroborates the results of an investigation carried out with industrial workers[25], which showed better indices of work capacity, better physical availability and optimist perception of younger workers to continue performing the same task in the future.

Although there were no significant differences between medians obtained for diagnosed diseases and age group, it is known that younger workers have more preserved physiological functions, such as physical strength, respiratory capacity, hormonal and mental functions that act as predictive factors for the maintenance of the functional capacity required to achieve the most demanding physical requirements[26-29]. In addition, these workers, especially men show greater safety in the work environment and greater optimism about work capacity, showing a lower risk of suffering non-fatal work accidents[30].

Regarding WCI stratification by length of service, we found that motorcycle taxi drivers with a time equal to or greater than five years had more diagnosed diseases. Longer exposure to work-related risk factors may result in mental illness and musculoskeletal disorders, which may have a negative influence on work capacity because of their potential impact on workers' current or future health[31]. Drivers with a length of service of less than five years showed greater aptitude to continue working in this activity in the future. It is inferred that this perception may be associated to shorter exposure to the harmful factors mentioned above.

The results of this study showed that work capacity of motorcycle taxi drivers was significantly related to the perception of these workers vis-à-vis their quality of life. This finding ratifies the results of another study[25], which showed that individual perception of work capacity is associated with work-related factors and can also be related to the perception of quality of life within and outside the work environment.

Corroborating with a study that analyzed the association between work capacity and quality of life[25], the physical realm of quality of life was

Table 3. Distribution of WCI realms scores according to age range and working time of motorcycle taxi drivers.

WCI realms	Age Group	Median	P-value*	Time (years)	Median	P-value**
Current work capacity	21-29	5.0	0.209	< 5	5.0	0.063
	30-39	6.0		≥ 5	5.6	
	40-49	6.0				
	≥ 50	5.0				
Physical and mental requirements	21-29	5.0	0.076	< 5	5.0	0.102
	30-39	5.0		≥ 5	5.0	
	40-49	6.0				
	≥ 50	5.0				
Diagnosed diseases	21-29	5.0	0.080	< 5	5.0	0.003
	30-39	5.0		≥ 5	5.6	
	40-49	5.0				
	≥ 50	5.0				
Work incapacity	21-29	1.0	0.114	< 5	1.0	0.247
	30-39	1.0		≥ 5	1.0	
	40-49	1.0				
	≥ 50	1.0				
Absenteeism	21-29	2.0	0.023	< 5	2.0	0.235
	30-39[a]	2.2[a]		≥ 5	1.0	
	40-49	1.0				
	≥ 50	1.0				
Self-prognosis	21-29[a]	7.0[a]	< 0.001	< 5	7.0	< 0.001
	30-39	4.0		≥ 5	4.0	
	40-49	4.0				
	≥ 50	4.0				
Mental resources	21-29	3.0	0.819	<5	3.0	0.087
	30-39	3.0		≥ 5	3.0	
	40-49	3.0				
	≥ 50	3.0				

WCI: Work Capacity Index. * P-value obtained by the Kruskal-Wallis test; ** P-value obtained by the Mann-Whitney/Wilcoxon test; a Significantly different from the other age groups by Bonferroni post hoc test ($p < 0.05$).

Table 4. Median of the quality of life of the WHOQOL-bref realms according to the WCI of motorcycle taxi drivers.

WHOQOL-bref realms	WCI	Median	P-value*
Physical realm	Low capacity	39.3	< 0.001
	Moderate/good capacity	42.9	
Psychological realm	Low capacity	41.8	0.247
	Moderate/good capacity	41.8	
Social relationships	Low capacity	66.8	0.454
	Moderate/good capacity	66.8	
Environment	Low capacity	28.1	0.754
	Moderate/good capacity	28.1	

WHOQOL-bref: World Health Organization Quality of Life-Bref Questionnaire; WCI: Work Capacity Index. * P-value obtained by the Mann-Whitney/Wilcoxon test.

the one most strongly related to WCI, suggesting that a better perception of work capacity may be related to a better physical capacity in the context of motorcycle taxi drivers.

The physical realm of quality of life is evaluated through questions related to pain and discomfort, energy and fatigue, dependence on medication or treatments, mobility, sleep and

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rest, daily life activities and work capacity[13]. Thus, considering the working conditions of motorcycle drivers, the lowest physical wear from their workday seems to influence the maintenance of their work capacity.

Motorcycle taxi drivers are often submitted to poor working conditions[14], whose work involves intense rhythms and overwork, urban violence, stress, tiredness, physical wear and emotional distress, sleep disorders, fatigue, irritability, sedentary lifestyle, exposure to pollution, among others problems. The lowest exposure to these factors may contribute to the promotion and maintenance of work capacity, relating to a better perceived quality of life in the physical realm.

The results of this study can help health professionals in the planning and implementation of educational actions with motorcycle taxi drivers, so that they have a better understanding of the risks that negatively affect their work capacity, quality of life and work force. In addition, they can sensitize managers, professionals involved in normatization and traffic control bodies and worker's health care, so as to be more committed to the health promotion of this group of workers and to include them in public health policies.

The study had limitations regarding the adopted epidemiological design. Cross-sectional studies are influenced by the effect of healthy workers, since they evaluate a specific and current moment of health, that is, they only evaluate healthy workers, excluding those who are separated by more serious diseases or disabilities. In addition, they are restricted to the identification of associations, preventing the direction of causal relations and analysis of temporality between predictive variables and outcome.

Conclusions

Moderate/good work capacity was predominant among motorcycle taxi drivers. Low capacity prevailed among those aged 40 years and older, especially those aged 50 years and older. In the relationships between WCI realms and age group, the youngest professionals had higher medians of absenteeism and self-prognosis of capacity to work in the future as motorcycle taxi drivers. There was a higher proportion of diseases diagnosed for those with a longer length of service and a higher proportion of self-prognosis to continue working as motorcycle taxi drivers in the future for those with lower length of service. Motorcycle taxi drivers with moderate/good work capacity had better perception of quality of life in the physical realm.

Work capacity of motorcycle taxi drivers is associated with the exposure of these workers to noxious factors that affect the quality of life in the physical realm and lead to lower work force. Thus, it is urgent to prioritize public policies and implement educational actions aimed at minimizing this exposure.

Collaborations

JRB Teixeira was responsible for the study design and design, data collection, data analysis and interpretation, article writing, relevant critical review of the intellectual content, and approval of the final version of the manuscript. FC Mussi, TM Araujo, EN Boery, CA Casotti, RNSO Boery, R Pereira and TN Mota collaborated with the relevant critical review of the intellectual content, writing of the article and approval of the final version of the manuscript. CAST Santos collaborated with the relevant critical review of the intellectual content, statistical analysis and approval of the final version of the manuscript.

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