



Sleep quality of Endemic Workers in Rio de Janeiro, Brazil.



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Introduction

Sleep disorders affects millions of people worldwide. When these risk factors are associated with others, as pesticide exposure, they increase the health effects. Pesticides are related to acute and chronic diseases, such as neurologic disorders. In Brazil, workers known as "Endemic Disease Combat Agents" who are responsible for the vector "combat", are subjected to chronic and cumulative exposure by intensive use of pesticides, some of them banned or restricted in other countries. Among the health effects from exposure to pesticides, there are sleep disorders, which affect psychomotor performance, memory consolidation, creativity and decision making.

Objective

This study aims to evaluate sleep quality in "Endemic Disease Combat Agents" in state of Rio de Janeiro, Brazil

Materials and Methods

This study is part of a multicenter research with "Endemic Disease Combat Agents" from Rio de Janeiro, Brazil. Sleep quality was assessed by Pittsburgh Sleep Quality Index (PSQI).

The questionnaire evaluates seven sleep components: subjective quality of sleep, sleep latency, sleep duration, sleep efficiency, sleep disorders, medication use, and daytime dysfunction. The score can range from 0 to 3 for each component, with a maximum total score of 21 points. Scores above 5 points indicate poor quality of sleep.

Results / Discussion

Preliminary results from 140 workers (mean 52 years old; SD=8.55) show that women have worse sleep quality than men but there is no significant difference in sleep latency and excessive daytime sleepiness. The major difference is mainly due to sleep duration (women=5h42min and men=6h18min) and lower sleep efficiency in women (82%) than in men (92.1%).

Table 1. Pittsburgh Sleep Quality Index (PSQI) component and global scores.

Variável*	Women n = 44	Men n = 96	p-value	Women	Men
Sleep quality	1,86 (0.88)	1,46 (0.87)	0,014		
Sleep latency	1,69 (1.01)	1,51 (1.02)	0,33		
Sleep duration	1,45 (1.06)	0,97 (0.95)	0,009	5h 42 Min	6h 18 Min
Sleep efficiency	0,93 (1.06)	0,53 (0.85)	0,019	82%	92,1%
Use of sleep medication	1,02 (1.33)	0,39 (0.92)	0,001	59,1% (0)	82,3 % (1)
Daytime dysfunction	1,25 (0.99)	1 (0.94)	0,1	6,8% (1)	4,2% (1)
				6,8% (2)	5,2% (2)
				27,3% (3)	8,3% (3)
PSQI global score	10,81 (5.04)	8,06 (4.16)	0,001		

PSQI raw global scale range: 0-18; sub-score scale range: 0-3
*Data are displayed as mean (standard deviation).

Conclusion

Changes in the work process and in the chemical-dependent vectorial "combat" are necessary, as a measure to protect the health of these workers and sleep problems that result from cumulative exposure to pesticides.

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