Risk factors for computer visual syndrome (CVS) among operators of two call centers in Sao Paulo, Brazil

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Introduction

The visual syndrome associated with computer use (CVS) is an eye disorder that is currently being studied for its high prevalence worldwide and is becoming more common in certain professions.

Objective

The aim of this study was to estimate the prevalence of the Computer Vision Syndrome (CVS) among operators of two call centers in São Paulo.

Methods

There was quantitative cross-sectional observational study, using a structured questionnaire. The questions were divided into: socio-demographic, lifestyle habits, occupational history, work status, satisfaction factors, nuisance factors at work and psychosocial factors related to work. The case definition was given, from the concept of Computer Vision Syndrome Blehm (2005), ie the presence of one or more symptoms visual / ocular specific verified with a frequency greater than or equal to "sometimes". Statistical analysis was performed from the analysis of absolute and relative frequencies and examined the association by chi-square. The variables that showed bivariate descriptive levels in tests p <0.20 or described in the explanation of eye disorders were included in multiple regression analysis. The final model variables that were descriptive levels below 5% (p <0.05).

Results

The symptoms reported were eye fatigue (73.9%), "weight" in the eyes (68.2%), "burning" eyes (54.6%), tearing (43.9%) and weakening of vision (43.5%). The prevalence of CVS was 54.6% among the operators studied. It was also verified associations between: being female (OR 2.6, 95% CI 1.6 to 4.1), lack of recognition at work (OR 1.4, 95% CI 1.1 to 1.8), organization of work in telemarketing (OR 1.4, 95% CI 1.1 to 1.7) and demand for labor (OR 1.1, 95% CI 1.0 to 1.3).

Conclusions

In this study, we concluded the importance of the characteristics of the organization and psychosocial factors at work as related to the presence of CVS in telemarketing operators.

Table 1- Distribution of telemarketing operators according to socio-demographic characteristics, lifestyle habits and domestic work

Characteristics	Total N*=476	%
Gender		
Female	353	(74,8)
Male	119	(25,2)
Average age (years)		
15-24	223	(46,8)
25-34	167	(35,1)
35 ou +	86	(18,1)
Schooling		
High School	113	(23,7)
College Incomplete	216	(45,4)
College Complete	147	(30,9)
Marital Status		
Single	337	(70,8)
Married	113	(23,7)
Single/widowed	26	(5,5)
Smoking		
Never Smoked	309	(64,9)
Stoped Smoking	52	(10,9)
Regular Smoker	69	(14,5)
Casual Smoker	46	(9,7)
Alcohol intake Frequency		
Non drinker	181	(38,0)
Once per week	196	(41,2)
More than once per week	99	(20,8)
Physical Activities		
Yes	249	(52,3)
No	227	(47,7)
Intensity of Domestic Work		
None	302	(63,4)
Light Work	152	(31,9)
Heavy Work	22	(4,6)

[*] Different amounts of total (472-475) are due to unanswered questions.

Table 2 - Final regression model of factors associated with CVS

Variables	OR	IC (95%) Inferior	IC (95%) Superior	P
Female Gender	2,58	1,62	4,13	<0,001
Recognition at Work (perception)	1,42	1,14	1,76	0,002
Work Organization in Telemarketing	1,40	1,13	1,75	0,003
Demand	1,13	1,01	1,27	0,041