

# QUALITY OF LIFE AND SLEEP IMPAIRMENT IN CHRONIC COCAINE DEPENDENTS

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**Abstract – Objective:** To evaluate quality of life (QL) and sleep quality impairment of cocaine chronic dependents in use of cocaine. **Method:** 40 patients, chronic cocaine dependents were evaluated (37 M; 3 F), with mean age of 28.92 years, along with 40 controls paired for gender and age. The following instruments were used: a) the semi-structured clinical interview; b) the Brazil Economic Classification; c) the Pittsburgh Sleep Quality Index; d) World Health Organization Quality of Life-BREF (WHOQOL-BREF). **Results:** The cocaine dependents showed QL impairment, with deficits in the physical, psychological and social relations domains. Impaired sleep quality was also observed in the cocaine dependents. However, the QL impairment was not directly due to sleep deficit. **Conclusion:** Chronic cocaine dependents showed impairment in QL and sleep impairment. However, for the cocaine dependent group, sleep impairment was not regarded as compromising QL probably because cocaine, rather than sleep, was the main factor negatively influencing QL.

KEY WORDS: cocaine, sleep, sleep disorders, quality of life.

## Qualidade de vida e comprometimento do sono em dependentes crônicos de cocaína

**Resumo – Objetivo:** Avaliar a qualidade de vida (QV) em dependentes de cocaína na fase de uso de droga e comprometimento da qualidade do sono. **Método:** Foram avaliados 40 pacientes dependentes de cocaína (37 M; 3 F), com média de idade de 29,92 anos; e 40 controles, equiparando-se as variáveis de gênero e idade e utilizando-se os seguintes instrumentos: a) Entrevista clínica semi-dirigida; b) Classificação Econômica Brasil; c) Índice de Qualidade do Sono de Pittsburgh; d) World Health Organization Quality of Life-BREF (WHOQOL-Breve). **Resultados:** Os dependentes de cocaína apresentaram prejuízo na QV, com alterações nos domínios físico, psicológico e também das relações sociais. No grupo estudo não houve associação entre QV e qualidade do sono, ou seja, para os sujeitos desta amostra, a qualidade do sono não afetou a QV. **Conclusão:** No grupo estudo a QV foi considerada prejudicada, mas não devida de forma primordial ao comprometimento da qualidade do sono. Nestes pacientes a cocaína é provavelmente o fator primordial negativo sobre a QV e não o comprometimento do sono.

PALAVRAS-CHAVE: cocaína, sono, distúrbios do sono, qualidade de vida.

Chronic sleep disorders may impair quality of life (QL). Several population studies have shown that 10 to 15% of people with chronic sleep disorders are also drug abusers<sup>1</sup>. The chronic use of drugs that cause euphoria or changes in consciousness may lead to reduced QL<sup>2</sup>. The chronic use of cocaine or crack, in addition to higher mortality, leads to reduction in life expectancy, and several socio-economic effects due to higher rates of hospitalization, underemployment, unemployment, and numerous other impairments such as personal suffering, isolation, stigma, and familial disengagement<sup>2</sup>.

The excessive and continuous use of high doses of stimulant drugs such as cocaine is also linked to inadequate

social behavior and anti-social behavior. As the administration of this drug is self-inflicted, the behavioral consequences are often not perceived as a problem. Therefore, chronic central nervous system stimulants abusers are generally brought for medical assistance by family or friends<sup>3</sup>.

The objective of this study was to evaluate the perception of QL in chronic cocaine dependents and of sleep impairment. This study was part of a larger project on cocaine abusers sleep patterns and disorders to be published elsewhere.

## METHOD

This research was performed within the Bairral Psychiatry In-

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stitute, in São Paulo State, a center dedicated to inpatients treatment of chronic chemical dependence in private of health-plan clients. Forty patients (37 M; 3 W), with mean age of 28.92 years, from 18 to 60 years' olds, of both genders, and with cocaine dependence according to the criteria of the ICD-X<sup>4</sup> were included.

The control group was composed of 40 health professionals that worked in the hospital, on morning and afternoon shifts, and had no complaints regarding use or abuse of psychoactive drugs.

The following instruments were used: the semi-structured clinical interview; the Brazil Economic Classification<sup>5</sup>; the Pittsburgh Sleep Quality Index (PSQI)<sup>6</sup> and the World Health Organization Quality of Life-BREF (WHOQOL-BREF)<sup>7,8</sup>.

Data obtained was evaluated by means of Fisher's exact test and the chi-square test, and the Mann-Whitney test were used to ascertain statistical value where  $p < 0.005$  was considered the significant.

This research was approved by the Ethics Committee of the Hospital das Clínicas, University of São Paulo Medical School under the number 08/05. All patients and controls signed the informed consent.

## RESULTS

The study group was composed predominantly males (92%) with with eight schooling years (32.5%), from medium to upper social classes, bachelors, divorced or separated (72.5%) and actives in occupational terms as students (52.5%). The control group was paired with the study group for the variables described.

Table 1 shows data related to the perception of QL in the study group and control group. The means in the study group for physical, psychological and social relation domains were significantly different ( $p < 0.001$ ) compared to the control group. The study group showed lower QL scores than the control group, except for the environment domain ( $p = 0.137$ ).

With regards to the global perception of sleep on the PSQI and its association to QL, no statistically significant difference was found ( $p > 0.05$ ) (Table 2).

In the control group, the subjects with better sleep quality showed higher QL scores. Scores on the physical domain of QL proved higher among subjects evaluated as good sleepers.

Table 1. QL perception of study and controls group in domains of the WHOQOL.

Domains	Group	Mean	Min	Max	N	p
Physical	Study	12	7	17	40	<0.001
	Control	18	10	20	40	
Psychological	Study	13	5	18	40	<0.001
	Control	16	11	20	40	
Social relations	Study	12	5	16	40	<0.001
	Control	16	8	20	40	
Environment	Study	14	7	18	40	0.137
	Control	14	11	18	40	

p=Mann-Whitney test.

Table 2. Comparison between QL and PSQI scores for study and control groups.

WHOQOL domain	Study group				Control group			
	PSQI	n	Median	p	PSQI	n	Median	p
Physical	<5	3	15 (11–17)	0.320	<5	25	18 (11–20)	0.009
	>5	37	12 (7–17)		>5	15	17 (10–18)	
	Total	40	12 (7–17)		Total	40	18 (10–20)	
Psychological	<5	3	13 (10–16)	0.962	<5	25	17 (12–20)	0.063
	>5	37	13 (5–18)		>5	15	15 (11–17)	
	Total	40	13 (5–18)		Total	40	16 (11–20)	
Social relations	<5	3	13 (12–16)	0.273	<5	25	17 (8–20)	0.103
	>5	37	12 (5–16)		>5	15	15 (12–20)	
	Total	40	12 (5–16)		Total	40	16 (8–20)	
Environment	<5	3	15 (14–18)	0.175	<5	25	15 (11–18)	0.640
	>5	37	14 (7–17)		>5	15	14 (11–18)	
	Total	40	14 (7–18)		Total	40	14 (11–18)	

p=Chi-square test.

## DISCUSSION

Comparison between study and controls revealed a marked QL impairment in the chronic cocaine users, on the physical as well as psychological and social relations domains. This impairment may have been caused by inactivity, as well as by lack of appetite, or simply reflect the psychological context of having recently become aware of their incapacitation by a disease with potentially severe consequences.

Chemical dependency is a chronic and recurrent disorder characterized by the search for, and compulsive consumption of drugs. The presence of a chronic disease is associated to lower QL since patients are more strongly influenced by self-evaluation mechanisms involving the meaning of being sick than their actual condition.

It should be stressed that to our best effort no similar studies were found in the literature addressing QL and sleep impairment in cocaine dependents because stimulant drugs such as cocaine alters conscience and the affected person does not perceive the severity of self-impairment.

The psychological domain, according to the instrument used, encompassed self-esteem, spirituality, religion, personal beliefs, thought, learning memory capacity and concentration, where this domain was considered impaired among cocaine dependents. The sequels of chronic abusive use of cocaine are not restricted to the physical domain, where cocaine can also impair thought, memory, pragmatism and result in a reduction of self-esteem, with consequent impairment of the psychological domain. It generally starts with the psychological mechanisms of rationalization, denial and self-deception as mechanisms of reducing the consequences of cocaine abuse.

Similar results to those in our cocaine dependents have been observed in patients with chronic diseases such as renal insufficiency, in which there is QL impairment in physical, psychological and social relations domains<sup>9,10</sup>.

Cocaine is a drug that impairs social relations due to isolation and the use itself and leads to deterioration in

the social relations domain. However, despite these difficulties in social relations, the subjects of the present sample studied did not report significant impairment in the QL for the environment domain. We may suppose that these persons did not find major difficulties in the home environment, physical safety, protection, financial resources or in leisure opportunities because these were provided by parents. This may be a characteristic specific of this sample studied because we assessed privately and third party funded inpatients.

In conclusion, sleep impairment in the control group was not correlated to QL because the subjects in this group were generally good sleepers. However, for the cocaine dependent group, sleep impairment was not regarded as compromising QL probably because cocaine, rather than sleep, was the main factor negatively influencing QL. In this patients group, cocaine severely impairs physical, psychological a social relations domains.

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