

## Opinion

## Professional Wellbeing Committee of WFSA: It is Time to Think and Take Action Regarding the Occupational Health of Anesthesiologists

Gastão F. Duval Neto (Brasil)

Both the nature and the workload of anesthesiologists have changed dramatically in recent decades. The advent of new technologies has expanded the surgical horizon significantly by allowing the presentation of intervention in more challenging medical conditions. The pressure of a growing economic competitiveness and the demand to do more by a decreased workforce are associated with the fact of emerging more difficult cases. This big change has impacted the occupational wellbeing of anesthesiologists heavily. Occupational wellbeing is a sign of work satisfaction and leads to the overall improvement of life quality. Finding a healthy solution to integrate the work into their lives and manage their balance and satisfaction well will result in better general wellbeing.

Current epidemiological studies on occupational health of physicians focus primarily on the investigation and the analysis of somatic and/or psychological pathologies, such as degenerative, cardiovascular, toxic and infectious pathologies, fatigue and nervous breakdown, depression, and chemical dependency (1, 2). Meanwhile, it is a question of how many efforts have been done regarding the prevention of these adverse occupational

problems and the continuous maintenance of occupational wellbeing of physicians. Easing these concerns need to be addressed widely along with these growing risks related to the occupational health of anesthesiologists, a vulnerable group of professionals.

Recently, in the area of occupational health of anesthesiologists, the knowledge about the risks of somatic and/or psychological pathologies, worsened by the stress of clinical practice, has improved the diagnosis, prevention, and management of these adverse conditions (3, 4). However, it is very important that anesthesiologists should be aware of the aspects of their work that cause more stress and they have to understand what better working conditions must be implemented so as to manage their occupational health. The need for such improvements is more evident when one considers what support systems for anesthesiologists with any deficiency professional defense associations, the state, and governmental organizations have established.

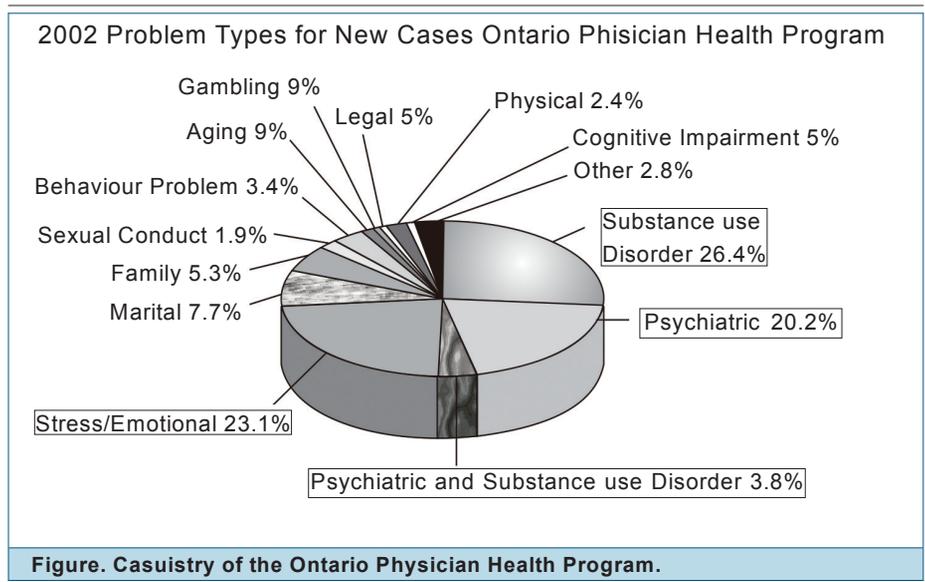
### An Example of a Professional Wellbeing Support System

A careful analysis of data collected regarding the occupational health of physicians, especially

anesthesiologists, leads to a scenario of very disturbing, even alarming fact that these support systems do not virtually exist. In 2002, the data analysis of a support system to Canadian Physician Health Service was admittedly competent, and it turned to be a potential guide: the Physician Health Program of Ontario Medical Association (OMA) is a confidential Canadian service that provides assistance to the physician who is afflicted by occupational pathologies (Figure). The Centre of the Canadian Medical Association for Physician Health and Wellbeing, an institution that granted more credibility and efficacy to activities and claims of the OMA, was created in 2000.

Epidemiological data documented by the OMA, showed an increase in the number of psychopathological diseases related to medical practice when compared to purely somatic pathologies resulting from problems like infections, irradiation, contamination, and gas inhalation.

Based on the attention given to the occupational health and wellbeing of Canadian physicians, Dr. Michael Myers, a professor of clinical Psychiatry at the University of British Columbia, published a book under the name of Canadian Medical Asso-



erating rooms, recovery rooms, and postoperative care units.

Table 2 shows the frequency of psychiatric co-morbidities associated with chemical dependency among anesthesiologists.

As mentioned above, there is a relation between the psychogenic pathologies developed by anesthesiologists (fatigue, depression, nervous breakdown, etc.) and the chemical dependency syndrome. During the training, anesthesiologists should be aware regarding the death risk due to drug addiction. This is highly reasonable especially for residents and trainees who face the potential risk of developing chemical dependency.

Recently, Collins et al. analyzed American anesthesiology residents during 10-year period and concluded that 70% of residents with chemical dependency were able to resume the practice of medicine after a successful treatment program (7). However, only 60% of those who returned to medicine were able to successfully continue in anesthesiology and 9% had premature death. The authors concluded that one anesthesiology resident with chemical dependency could obtain better results if he or she chooses a specialty with lower risks.

Professor Francis Bonnet and colleagues published a national study on the incidence of drug dependency among French anesthesiologists (8). They demonstrated that 11% of anesthesiologists who answered the questionnaire were users or dependents of one or more drugs, except tobacco. Alcohol (59% of the cases) and anti-anxiety/hypnotic drugs (41%) were the frequently used substances. The incidence of drug ad-

ciation to warn against the risk factors in occupational pathologies, and to raise money in their interests of diagnosis and support in Canada (5). It is just an initiative that should be followed by other medical institutions.

**Specific Risks**

Current characteristics inherent to the clinical practice of anesthesiologists may result in specific correlations with psychological pathologies. Risks of both acute and chronic fatigue and the high level of occupational stress should be aware during clinical practice, also in residency training programs.

Recently, professor Oli Mere-toja published an article titled "We should work less at night" (6). He concluded: "There is increasingly more evidence that performance of physicians is poorer if they work excessive prolonged shifts or at night. These work patterns decrease the quality of care and increase medical expenses. Furthermore, night workers have serious health risks due to their non-

physiologic work shifts. Effective ways of reducing overall consequences of fatigue and night work include minimizing the amount of work performed at night and establishing rules regarding the maximum working hours for each work shifts"(6).

One department in working with the approach of chemically dependent physicians (Uniad) of the São Paulo Medical School (Federal University of São Paulo) recently presented a series, showed in the table 1, including 57 anesthesiologists with clinical evidence of drug addiction. In general, Opioids (53%), benzodiazepines (30%), and alcohol (23%) were frequently used drugs. Chemical dependency, especially opioids, significantly increases the difficulty of delivering support and effective rehabilitation treatment, especially due to the high risk of relapse and the risk of suicide or death due to overdose. Another difficulty of rehabilitation for anesthesiologists who are dependent on opioids encounter, is the relatively greater availability and the easy access to drugs in op-

diction increased with age. Dependent individuals raised problems at work that might have contributed to the development of their pathology.

The Burnout Syndrome is a well-defined medical condition characterized by emotional exhaustion, depersonalization, and reduced personal accomplishments (9). Emotional exhaustion of an individual, especially due to excessive working demands, personal conflicts in interpersonal relationships, as well as performance of professional duties, is considered to be the initial step of this Syndrome.

Professor De Keyser and her working group, including psychologists and anesthesiologists of the Université de Liège, Belgium, observed a high incidence of Burnout Syndrome among Belgian anesthesiologists, especially young professional under 30 years of age (10). There is a special concern regarding young residents involved in clinical training programs, generally with heavy workload and excessive occupational stress, sometimes because of their lack of clinical experience. Unfortunately, some trainees prefer to change the recreational use of potentially addictive drugs like abuse of certain substances that may cause chemical dependency as a way of dealing with difficult situations. Eventually, the chemical dependency of the health care professional can jeopardize the safety of the patients with operation.

Fatigue and sleep deprivation are other factors that can also impact the safety of patients. Emerging evidence shows that excessive workload can harm the

**Table 1. Casuistry of UNIAD-UNIFESP (São Paulo), Chemical Dependent Physician Treatment Center (UNIAD-UNIFESP).**

<b>(Drugs used more often)</b>			
<b>Drugs</b>	<b>Total N (%)</b>	<b>Alarming use N (%)</b>	<b>Dependency N (%)</b>
Alcohol	20 (35.1)	7 (12.3)	12 (22.8)
Benzodiazepines	20 (35.1)	3 (5.2)	17 (29.8)
Opioids	34 (59.6)	4 (7.0)	30 (52.6)
Cocaine and crack	3 (5.2)	3 (5.2)	0 (0)
Marijuana	6 (10.5)	4 (7.0)	2 (3.5)
Amphetamines	6 (10.5)	2 (3.5)	4 (7.0)
Inhalants	1 (1.8)	1 (1.8)	0 (0)

**Table 2. Prevalence of Comorbidities in Chemically Dependent Individuals at UNIAD-UNIFESP (São Paulo).**

<b>Diagnosis of psychological Pathologies (ICD 10)</b>	<b>N</b>	<b>%</b>
Total cases of comorbidities	24	42.1
Depression (F32 and F33)	12	21.0
Personality disorders (F60)	6	10.5
Bipolar disorders (F31)	5	8.7
Anxiety disorders (F41)	4	7.0
Schizophrenia (F20)	1	1.7

Both table 1 and table 2 are from Duval Neto GF, Bonet F, Howard S, Gupta P, Meretoja O, Moore R, et al. Professional well-being work party of WFSA: it is time to think and take action regarding the occupational health of anesthesiologists. *Rev Bras Anesthesia* 2011; 61: 389-96.

safety and increase the incidence of mistakes by tired anesthesiologists in comparison with others who are at rest (11-14).

Concerns about the occupational health of physicians increased in the last two decades. The *BMJ* and *Western J Med* published the first works on the matter. These studies emphasized that up to 46% of all Canadian physicians presented advanced stages of the Burnout Syndrome (15).

Today, with no doubts, it is the obvious tendency that the development of somatic and psychogenic pathologies gets along with the occupational etiology. Workable solutions that may protect both mental and physical health of healthcare professionals have been developed. The birth of support systems may be the option to prevent these occupational diseases by establishing

institutional and governmental policies to help the health of anesthesiologists. A similar argument was also presented in an editorial title, a paper of *BMJ* in 2001, wrote by Dr. Gavin Yamey: "We should move away from a disease model and focus on positive function as a means of prophylaxis (Professional Wellbeing)" (16).

The Brazilian Society of Anesthesiology (SBA, from the Portuguese) has shown an increasing interest regarding occupational health of anesthesiologists since 2000. Its function is to understand, alert, and influence this type of situation, which has a significant impact on the life of anesthesiologists. Actions developed have been supported by the Occupational Health Committee of this entity and by the World Federation of Societies of Anes-

**Table 3. Conclusion of the "Study of Relationships among Occupational Stress Level and the Work Conditions: In Anesthesiology Training Programmes in Brazil".**

- The 2<sup>nd</sup> year of Anesthesiology training showed the higher indices of occupational stress in relation to the other levels to training and to their preceptors.
- Levels of occupational stress were higher in females.
- Ages between 25 and 35 years showed the highest levels of occupational stress.
- Married individuals had the lowest levels of stress when compared to single and divorced.
- The number of hospitals in which the interviewees work did not influence the levels of occupational stress.
- Alcoholism is highly prevalent in Brazilian residents and preceptors.
- The control level of working dynamics, analyzed in 5 dimensions, showed a statistically significant lower level when Brazilian professionals were compared to Belgium anesthesiologists.

thesiologists (WFSA), through its "Professional Wellbeing Committee" (PWC/WFSA). The Committee of Occupational Health of the SBA conducted an epidemiologic study, in association with professor Isabelle Hansez of the Department of Work Psychology of Université of Liège, in Belgium, whose objective was to evaluate the occupational stress level and the degree of adaptability to working conditions of residents and their preceptors in the Anesthesiology Training Programs connected to the SBA and to the Ministry of Education. The main results are summarized in table 3 (unpublished).

In the spring 2010, the PWC of WFSA conducted an investigation involving 120 member-societies, using a questionnaire, that the objective was to identify the incidence of occupational health problems among the members of a specific society and the approaches used by those societies to deal with the occupational health of anesthesiologists pathologies. Results showed that more than 90% of National Societies consider the Burnout Syndrome as a problem among their members, but only 14% developed some sort of strategy to face it. The PWC of WFSA realized a special symposium on the

topic for the World Congress of Anesthesiologists, in 2012 in Buenos Aires.

Jenny Firth-Cozens, a special counselor of modernization of postgraduate courses, published in the *BMJ* in 2003 an editorial "Doctors, their wellbeing, and their stress", and concluded that "It is time to be proactive regarding stress-- and to prevent it", summarizing our feelings regarding the attitude in relation to the occupational wellbeing of anesthesiologists (17). She ended her text with the following phrase: "Stress is here to stay, and the sooner we accept that fighting it is natural, besides being an essential part of patient safety, the faster the lives of doctors and their patients will improve."

Organizations involved in structuring the education and/or medical practice need to understand that the consequences of occupational health problems of physicians and residents not only result in worrisome changes in somatic and psychological health of anesthesiologists, but also hinder the safety of medical practices regarding anesthesiologists and patients, and meanwhile, such consequences can increase the costs of medical assistance. Increasing demand by work pressure coupled with personal and social

commitments can be extremely heavy at times, often resulting in Fatigue Syndrome among clinical anesthesiologists. Interestingly, "fatigue" (also called exhaustion, tiredness, lethargy, languidness, languor, lassitude, and listlessness) can be differentiated into physical and mental categories.

Christopher P. Landrigan highlighted the importance of this subject, when he mentioned in the American Joint Commission Sentinel Event Alert that "We, anesthesiologists, have a culture of working long hours and the impact of fatigue has not been a part of our consciousness". Meanwhile, another report "To err is human: building a safer health system" by The Institute of Medicine also revealed that medical errors contribute to many hospital deaths and serious adverse events (18, 19).

Regarding this concern, The American Joint Commission "Sentinel Event Alert" in 2011 urged to give greater attention to prevent fatigue and its consequences (Burnout Syndrome, Chemical Dependence, Suicidality, etc.) among health care workers and the Commission also suggested to take specific actions for health care organizations in order to mitigate these potential risks (20). The purpose of "Sentinel Event Alert" was to address the effects and risks of an extended work day as well as the cumulative effect of many days of extended work hours. The Joint Commission Alert made a number of recommendations for health care organizations, such as medical schools, medical training centers, public and private hospitals, national and regional societies, insurance institutions

and others. The specific recommendations included:

1. To assess fatigue-related risks such as off-shift hours, consecutive shift works and staffing levels;

2. To examine processes when patients are handed off or transitioned from one caregiver to another, a time of risk that is compounded by fatigue;

3. To seek staff input on how to design work schedules that minimize the potential for fatigue and provide opportunities for staff to express concerns about fatigue;

4. To create and implement a fatigue management plan that includes scientific strategies against fatigue such as engaging in conversation, physical activity, strategic caffeine consumption and short naps;

5. To educate staff about good sleep habits and the impact of fatigue on the safety of patients with surgery.

The Professional Committee of WFSA strongly recommends the reading of the e-book (free to download from the Home Page of the World Federation of Anesthesiologists WFSA), of the Latin-American Confederation of Anesthesiologists Societies (CLASA) and Brazilian Society of Anesthesiology (SBA).

To conclude, we need to be more aggressive in formatting medical education regarding the occupational health risks of phy-

sicians, specifically among anesthesiologists, which can harm their health and wellbeing. Moreover, it has been well documented that these risks to anesthesiologists can lead to serious consequences in the safety of patients with surgery.

Furthermore, national policies to prevent and handle the Burnout Syndrome and related pathologies among healthcare professionals must be developed through the Medical Continuing Educational Programs.

Being aware of a problem is the first step in correcting a problem!

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From the Professional Wellbeing Committee of World Federation of Societies of Anesthesiologists (WFSA), and the Professional Health Committee of Brazilian Society of Anesthesiology. The author has no financial support and potential conflict of interest for this work.

**Citation:** Gastão F. Duval Neto. Professional Wellbeing Committee of WFSA: It is time to think and take action regarding the occupational health of anesthesiologists. *J Anesth Perioper Med* 2015; 2: x-x.

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