

## OCCUPATIONAL STRESS IN THE MOBILE EMERGENCY CARE SERVICE

### ESTRESSE OCUPACIONAL NO SERVIÇO DE ATENDIMENTO MÓVEL DE URGÊNCIA

### ESTRÉS OCUPACIONAL EN SERVICIOS DE ATENCIÓN MÓVIL DE URGENCIA

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Submitted on: 06/20/2012

Approved on: 04/22/2014

#### ABSTRACT

This study aims to evaluate the levels of job stress among Marília's Mobile Emergency Care Service professionals, consisting of an exploratory and descriptive study. Data collection was performed by a subject's identification formula and the instrument Escala de Estresse No Trabalho, an adaptation for Portuguese of the original questionnaire Job Stress Scale, created in 1988 by Töres Theorell. Data was analyzed using the software EPIINFO version 6.02. The research's population was composed of 60 individuals from different categories (nurses, nursing technicians, receptionists, physicians and drivers), and the analysis showed that the subjects have, at the same time, high levels of demand (exigencies and psychological pressures exerted by the job), control (the individual's capacity to use their intellectual abilities to exercise his or her work and have authority to decide how to do it) and social support (quality of the relationships established by the subject with their bosses and coworkers), consisting of a situation in which the professionals actively experience their work, with a low probability of job stress manifestation. These results remarkably differ from the impression sustained by nonprofessional people and even by health professionals of other specialties about the levels of stress related to the work on emergency, showing the necessity of analyzing the health services under a scientific point of view, in order to demystify beliefs and impressions that often do not match reality.

**Keywords:** Stress, Physiological; Burnout, Professional; Emergency Medical Services.

#### RESUMO

*Este estudo busca avaliar os níveis de estresse ocupacional na equipe do Serviço de Atendimento Móvel de Urgência (SAMU) da cidade de Marília, tratando-se de uma pesquisa de natureza descritiva e investigatória. A coleta de dados deu-se com base em uma ficha de identificação do participante e do instrumento Escala de Estresse no Trabalho, uma adaptação para o português do questionário original em inglês Job Stress Scale, elaborado em 1988 por Töres Theorell. Os dados foram analisados utilizando-se o software EPIINFO versão 6.02. A população pesquisada foi composta de 60 indivíduos das diversas categorias profissionais (enfermeiras, técnicos de enfermagem, recepcionistas, médicos e motoristas). Em análise percebeu-se que os sujeitos apresentaram, ao mesmo tempo, altos níveis de demanda (exigências e pressões psicológicas exercidas pelo trabalho), controle (capacidade do indivíduo em empregar suas habilidades intelectuais para exercer seu trabalho e ter autoridade para decidir como realizá-lo) e apoio social (qualidade das relações desenvolvidas pelo sujeito com seus superiores e colegas de trabalho), configurando um estado em que o profissional vivencia seu trabalho de maneira ativa, havendo pouca probabilidade de manifestação do estresse ocupacional. Tais resultados diferem grandemente da impressão sustentada pelo público leigo e pelos próprios profissionais de saúde de outras áreas a respeito dos níveis de estresse relacionado ao trabalho no serviço de urgência e emergência, evidenciando a necessidade de se analisar os serviços de saúde sob o olhar científico, de maneira a desmistificar crenças e impressões que, muitas vezes, não condizem com a realidade.*

**Palavras-chave:** Estresse Fisiológico; Esgotamento Profissional; Serviços Médicos de Emergência.

#### RESUMEN

*La presente investigación descriptiva busca evaluar los niveles de estrés ocupacional en el equipo del Servicio de Atención Móvil de Urgencia (SAMU) de la ciudad de Marília. La recogida de datos fue realizada a través de una ficha de identificación del participante y de la herramienta Escala de Estrés en el Trabajo, una adaptación para el portugués del cuestionario original en inglés Job Stress Scale, elaborado en 1988 por Töres Theorell. Los datos fueron analizados por medio del software EPIINFO versión 6.02. Sesenta individuos de distintas categorías profesionales (enfermeras, técnicos de enfermería, recepcionistas, médicos y chóferes) integraron la población objeto de estudio. En el análisis se observó que los sujetos presentan, al mismo tiempo, altos niveles de demanda (exigencias y presiones psicológicas del trabajo), control (capacidad de emplear sus habilidades intelectuales para realizar su tarea y tener autoridad para decidir cómo hacerlo), y apoyo social (calidad de las relaciones establecidas por el sujeto con sus superiores y colegas de trabajo), configurando un estado en el cual el profesional vivencia su trabajo de manera activa, con pocas probabilidades de manifestar el estrés ocupacional. Dichos resultados difieren enormemente de la impresión que tienen el público en general y los profesionales de otras áreas sobre los niveles de estrés relacionados al trabajo en los servicios de urgencia y emergencia. Tal hecho pone en evidencia la necesidad de analizar los servicios de salud bajo la mirada científica, de manera a desmistificar creencias e impresiones que, muchas veces, no corresponden a la realidad.*

**Palabras clave:** Estrés Fisiológico; Agotamiento Profesional; Servicios Médicos de Urgencia.

## INTRODUCTION

Nowadays, much has been said about the impact of stress on the various spheres of human existence, in particular in three of them: biological, in which stress can lead to the worsening of pre-existing diseases and/or trigger the onset of them; mental, in which impairment is evidenced by onset of psychological symptoms, such as anxiety and depression; and social, a dimension that, when affected, triggers the deterioration of quality of interpersonal relationships. Sometimes, even though stress is not defined, people perceive the presence of it, manifest the consequences and repercussions of this phenomenon and see themselves having to deal with them.<sup>1</sup>

Stress can be approached from an infinity of viewpoints, and various studies and theories have been developed trying to define what it consists of. Hans Selye proposed the General Adaptation Syndrome, which divided this stress phenomenon in three phases that can be described as follows.<sup>2,3</sup>

At the stage of **alarm reaction**, the central nerve system as soon as it detects the stressor, it stimulates the increased secretion of adrenocorticotrophic (ACTH) by the pituitary gland. This hormone will act on the adrenal glands, causing them to produce large amounts of adrenaline and corticoids that, once having access to tissues through bloodstream, will trigger effects such as increased muscle tone, increased glycogenolysis, enhanced respiratory rate and, consequently, increase of blood oxygen concentration, of heart rate, of blood pressure and blood flow. The alarm reaction occurs for a limited time, leading to the next stage.

The **resistance** phase represents the development of body's adaption to the stressor. At this stage, the sympathetic activity decreases and the parasympathetic nervous system starts to predominate, which lowers the alert level and restores the normal parameters of heart rate, blood pressure and blood flow. During this phase, the persistence of the stressor leads to a gradual decrease of the body's resilience, setting, then, the third and final stage.

The **exhaustion** phase arises from the depletion of energy required to maintain the resistance/adaptation. Such depletion may even lead to death of the organism.

In addition to the dimensions mentioned previously, it is possible to observe the stress manifestations in the occupational sphere. In the latter context, stress arises from (and because of) an inherent characteristic of working:<sup>4</sup>

*Work, as a social human action, comprehends the ability to understand the man's capacity of producing the environment in which he lives, as well as himself. In the process of interaction with nature [...], the man, at the same time he modifies the nature, he is also modified by it. Among the numerous modifications, there are those that have impact on the mental structure.*

More than an existing idea, even among the lay population, the occupational stress is a reality. In fact, it is known that the environment where an individual performs his/her work creates repercussions both in work performance and health.<sup>3</sup> The same authors reveal that there is a great variety of possible factors responsible for the genesis of health hazards resulting from occupational stress. Among those, there are excessive psychological burden, neglecting ergonomics and work environment general conditions, as well as risks in which the individual is exposed to, related to environment or the labor activity itself. To those factors, it is additive to the individual susceptibility related to, as an example, the habits and health conditions of the subject, which also influence the manner and intensity which the injuries can be presented.

The beginning of the establishment of work and stress relations goes back to the time of the Industrial Revolution<sup>4</sup>, a scenario in which a great socioeconomic expansion worldwide occurred. They were times in which the aim was to reach the maximum possible profit and results from work, to the point which the continuous quest for absolute productivity conflicted with human limitation, causing exhaustion and consequently increased workers' suffering.

Nowadays, the knowledge and control of occupational stress do not involve only prevention of injuries to the physical and mental health of workers, but also aim to avoid deleterious stress effects on productivity and performance therein, realizing that success of a company is largely determined by the ability of its employees to cope with stress.<sup>5</sup>

In my experiences as an undergraduate nursing student, I comprehended that each gesture of care requires a lot of attention and responsibility<sup>4</sup>, besides determining an intensive emotional burden on the professional who performs it. I also found that living with pain and suffering (and many times death), present in the routine of health professionals, can lead to development and progression of stress from work.<sup>3</sup>

From these specific personal factors, it can be inferred that health professionals have been exposed to stressors inherent to the very nature of their work, a fact that possibly makes them likely to develop occupational stress, and its consequences in the context of their work activities. It has been documented that healthcare professionals exposed to a large stress load feel tense and tired during work, perform their tasks with less precision, have a decreased production capacity and high rate of absenteeism, are sick often, appear to be anxious, depressed, inattentive, unmotivated and not satisfied.<sup>6</sup>

Another finding is that in certain areas of working with healthcare, the professionals are apparently more exposed to stressors. From that finding, it can be inferred that one of those potentially stressful areas is urgency and emergency care. In fact, a study<sup>7</sup> conducted with professionals from different units

of this type of work, detected a tendency among the individuals studied to remain constantly on alert, due to anxiety related to the inconstancy of activities and patterns of work (aspects specific to emergency assistance).

Other authors<sup>8</sup> addressed a multidisciplinary team of a Mobile Emergency Care Service (SAMU) unit to identify risk factors to which these professionals are exposed during their work activities, according to their own perceptions. The interviewees cited, among others: automobile accidents, physical aggression (from patients and other individuals present at the site of care, mainly in violent cities) and risk of acquiring infections by frequent contact with blood and other body fluids. Exposure to all those factors can be a major source of occupational stress for the Mobile Emergency Care Service.

From the analysis of the literature, the experiences that I was able to live until now and my perceptions and personal inferences, I believe that the work in the mobile emergency care service is an important producer of occupational stress. Therefore, research on occupational stress and evaluation of it among healthcare professionals of a Mobile Emergency Care Service, may contribute to better understanding of the causes and effects of this phenomenon, allowing formulation of effective proposals to control of it, creating space to new studies and reflections on the theme.

## METHODS

This is a field survey of descriptive and investigative nature. To evaluate the relation between the professionals and occupational stress in a Mobile Emergency Care Service, it was used the scale *Escala de Estresse no Trabalho* was used, which consists of an adaptation to Portuguese of the Job Stress Scale, developed by Töres Theorell in 1988. The Job Stress Scale is a shorter version of the original questionnaire, created in the '70s by Robert Karasek, one of the first researchers to seek the existence of stressors in the work environment and to study its consequences on the worker's health.<sup>9</sup>

Karasek proposed a theory involving two aspects, focusing on the way of work organization: the *demands* would be the psychological pressures that the work has on the individual, and *control* would consist in the ability of the individual to use his/her intellectual resources to do the work and have authority to decide how to perform it.<sup>9</sup>

Karasek's model has average scores on a figure formed by four quadrants, relating to demand and control. It is considered that the association of high demands and low control leads to high strain (also called job strain) and damage to the worker's health. On the other hand, the coexistence of low demands and low control would configure a passive work, being also harmful because it can lead to loss of skills and interest. The

combination of high demands/high control would lead the professional to actively experience the process of work because the worker would have control over the planning and pace of the work, and the ability to overcome difficulties, despite the high levels of demands. The coexistence of low demand and high control would create low job strain on the worker, being considered the "ideal" situation.<sup>9</sup>

To this two-dimensional model idealized by Karasek, Johnson added, in 1988, a third aspect: the *social support* in the work place, consisting of the quality of the relationships established by the individual with his/hers boss (es) and coworkers. This aspect was also included in the questionnaire formulated by Theorell, and in its translation into Portuguese.<sup>9</sup>

## STUDY SITE

The study was conducted with professionals of the Mobile Emergency Care Service (SAMU) of Marília, a city located in the central-west region of São Paulo, 443 kilometers from the state capital. The city has 43 square kilometers of urban area and 1,152 square kilometers of rural area, consisting of 1,194 square kilometers of total area. There are approximately 220,000 inhabitants.<sup>10</sup>

The multidisciplinary team of SAMU is composed by drivers of the units (ambulances), interventional physicians (who provide direct assistance to victims) and regulators (physicians who answer telephone calls and decide on the most suitable type of ambulance to be sent), nurses, nursing technicians and screening receptionist (that make the first contact with the person who calls and transfer the calls to the regulator physician). SAMU has two types of ambulances: a unit of basic support (USB), in which a driver and a nursing technician answer the call, and the advanced support unit (USA or mobile UIC), that carries, besides the driver, an interventional physician and a nurse to answer the emergency. It is the regulator physician the responsibility of deciding which type of ambulance best answers the emergency, from the information provided by the person making the call about the injury and the status of the victim.

In the SAMU unit of Marília, each shift lasts 12 hours and has the following professionals: four drivers (three for the USBs and one for the USA); two physicians (one regulator and one interventional); one nurse; three nursing technicians (one for each USB); and two screening receptionists. All professionals work 12 hours shift and have 36 hours to rest. Thus, the complete team consists of 17 drivers, 16 physicians, 4 nurses, 17 nursing technicians and 11 screening receptionists, a total of 65 professionals. It should be emphasized that this number refers to the full team, not considering absences planned or not.

## POPULATION

The study sample consisted of 60 individuals distributed among the different professional categories. Due to factors such as vacations and incompatibility of schedules, one nursing technician, one screening receptionist and three physicians could not participate. Among the 60 professionals approached, all agreed to participate.

## DATA COLLECTION

After the project was approved by the Ethics on Research Involving Human Beings Committee of the Marília College of Medicine and by the Municipal Health Secretariat of Marília, data collection was conducted by filling out the questionnaire and the identification form. All staff members were invited to participate in the study by filling out the documents in the workplace, during their turn. The professionals who agreed to participate on the research also completed an informed consent, after explanation of the nature of the work and maintaining the confidentiality of the interviewees.

## ANALYSIS

The data collected from the instruments described, were analyzed using the software EPIINFO version 6.02. The analysis and classifications of scores as high or low were given by determining the average of them (Table 1)<sup>12</sup>. The scores below average were considered low, and the ones above average were considered high values.

Table 1 - Variation and average, by dimensions, Job Stress Scale scores

| Dimension      | Variation | Average |
|----------------|-----------|---------|
| Demand         | 5 – 20    | 12,5    |
| Control        | 6 – 24    | 15      |
| Social Support | 6 – 24    | 15      |
| Final Score    | 17 – 68   | 42,5    |

Then, the scores were grouped in tables according to different criteria (sex, age range, professional category, etc.), aiming to verify if there were relationships among such characteristics and higher or lower levels of occupational stress.

The calculation of scores was performed using a Likert scale of four points, and the values were assigned to the alternatives of each question, as it follows:<sup>11,12</sup>

- **demand questions** (five questions from A to E, minimum score of five, maximum of 20): often – value 4; sometimes – value 3; rarely – value 2; almost never – value 1; never – value 1. The questions letter D has its values reversed, because it

is considered that the frequent provision of enough time to perform all work tasks consists a determinant of low demand: often – value 1; sometimes – value 1; rarely – value 2; almost never – value 3; never – value 4.

- **control questions** (six questions from F to K, minimum score of six, maximum of 24): often – value 4; sometimes – value 3; rarely – level 2; almost never – value 1; never – value 1. The question letter I has its values reversed, because it is considered that the frequent necessity of repetition of the same tasks in the workplace as a determinant of low control: often – value 1; sometimes – value 1; rarely – value 2; almost never – value 3; never – value 4.
- **social support questions** (six questions from L to Q, minimum score of six, maximum of 24): totally agree – value 4; agree more than disagree – value 3; disagree more than agree – value 2; disagree – value 1.

## RESULTS AND DISCUSSION

The 60 subjects of the study are distributed in the various professional categories, as follows: four nurses, 16 nursing technicians, 13 physicians, 17 drivers and 10 receptionists (Table 2):

Table 2 - Distribution of professionals according to professional category

| Professional Category | Number of Professionals | Frequency |
|-----------------------|-------------------------|-----------|
| Nurses                | 04                      | 6,6%      |
| Nursing Technicians   | 16                      | 26,6%     |
| Physicians            | 13                      | 21,6%     |
| Drivers               | 17                      | 28,3%     |
| Receptionists         | 10                      | 16,6%     |
| Total                 | 60                      | 100%      |

The number of professionals in each category is appropriate for the number of ambulances that the service has, as determined by the Ordinance GM nº 1864 September 29, 2003 and by the Ordinance GM nº 2048 November 5, 2002, which regulate, respectively, the number of ambulances (USBs and USAs) according to the municipality's population and which professionals constitute the team of each type of vehicle.<sup>13</sup>

Regarding gender, 43.3% of the population is composed of women, while men are 56.6% of the surveyed subjects (Table 3).

Table 3 - Distribution of professionals by gender

| Gender | Number of Professionals | Frequency |
|--------|-------------------------|-----------|
| Female | 26                      | 43,3%     |
| Male   | 34                      | 56,7%     |
| Total  | 60                      | 100%      |

As for age (Table 4), it is observed that more than half of the professionals (33 subjects, adding 55% of the sample) are 30 to 39 years of age, being, therefore, a population composed predominantly by young adults. These results differ from the findings of a study<sup>8</sup> with 40 professionals of SAMU, including physicians, nurses, nursing technicians and drivers. In this study, the population observed was even younger: 62.5% of the professionals had between 18 and 38 years of age, while 32.5% fit in the age group of 38-48 years, and only 5% were aged between 48 and 61 years.

Table 4 - Distribution of professionals by age group

| Age Range     | Number of Professionals | Frequency |
|---------------|-------------------------|-----------|
| 20 – 29 years | 03                      | 5,0%      |
| 30 – 39 years | 33                      | 55,0%     |
| 40 – 49 years | 19                      | 31,7%     |
| 50 – 59 years | 04                      | 6,7%      |
| 60 – 69 years | 01                      | 1,7%      |
| Total         | 60                      | 100%      |

The “young adult” corresponds to an individual in the first phase of maturity, which begins around age 20 and extends to approximately 35, prior to middle age. At this stage of life, with the identity formed, conflicts of adolescence generally resolved and consciousness of no longer being a “learner in life”, the individual find themselves defined professionally or closer to that definition and presents ready to develop stable and egalitarian relationships with other people.<sup>14</sup> In this aspect, a possible reflection about the fact would be that more than half of the studied population is found in this stage described: the personal characteristics are possibly related to lower levels of occupational stress, since the individual by his or her own stage of development, has awareness of their role as a person, has their professional decisions clear and concrete and ability to relate with coworkers on equal terms.

Such characteristics may be related to high control and social support scores, although they hardly influence the levels of demand (once these are almost always determined by nature, conditions and intensity of work, and not by factors related to the worker). This supposed trend can be seen below (Table 5): professionals in the age group 30-39 years did not have the higher scores on demand (15.33), and the values referred to control and social support (17.52 and 19.73) are close to the maximum scores found.

Regarding marital status, there was a predominance of married individuals: 39 professionals or 65% of the studied population (Table 6).

Using as example the age range, the preponderance of married individuals among the team also suggests low levels of oc-

cupational stress: at the same time that marriage represents a waiver to the lack of commitment of the single life, determining the construction of new responsibilities, the changes which marriage bring to personality of the individual results in, among other things, more maturity and focus on professional obligations.<sup>14</sup> It is inferred that the characteristics attributed to a married couple and those in a stable union (living together) may turn them less prone to the development of occupational stress, due to, for example, the existence of better control over the work demands. In fact, analyzing the results of the questionnaire, according to marital status, it is observed (Table 7) that the levels of demand referred by married professionals (14.87) are not among the higher in the team, their control score (17.41) is one of the highest, and the levels of social support (19.90) referred by these professionals surpass those of all other marital statuses.

Table 5 - Job Stress Scale scores and averages by dimension and age range in years

| Age Range | Demand | Control | Social Support | Final Score |
|-----------|--------|---------|----------------|-------------|
| 20 – 29   | 15,33  | 18,33   | 20,67          | 54,33       |
| 30 – 39   | 14,88  | 17,52   | 19,73          | 52,12       |
| 40 – 49   | 14,68  | 16,42   | 19,53          | 50,63       |
| 50 – 59   | 15,25  | 18,00   | 20,75          | 54,00       |
| 60 – 69   | 9,00   | 18,00   | 15,00          | 42,00       |
| Average   | 14,77  | 17,25   | 19,70          | 51,72       |

Table 6 - Distribution of professionals according to marital status

| Marital Status      | Number of Professionals | Frequency |
|---------------------|-------------------------|-----------|
| Stable relationship | 01                      | 1,6%      |
| Married             | 39                      | 65,0%     |
| Divorced            | 07                      | 11,6%     |
| Single              | 12                      | 20,0%     |
| Widower             | 01                      | 1,6%      |
| Total               | 60                      | 100%      |

Table 7 - Job Stress Scale scores and averages by dimension and marital status

| Marital Status      | Demand | Control | Social Support | Final Score |
|---------------------|--------|---------|----------------|-------------|
| Stable Relationship | 15,00  | 14,00   | 18,00          | 47,00       |
| Married             | 14,87  | 17,41   | 19,90          | 52,18       |
| Divorced            | 15,00  | 16,14   | 19,29          | 50,43       |
| Single              | 14,75  | 17,58   | 19,83          | 52,17       |
| Widower             | 9,00   | 18,00   | 15,00          | 42,00       |
| Average             | 14,77  | 17,25   | 19,70          | 51,72       |



Regarding working time in the Mobile Emergency Care Service, individuals engaged in professional activities in SAMU for more than five years are predominant: 38 subjects, constituting 63.3% of the sample (Table 8).

Table 8 - Distribution of professionals according to working time in SAMU

| Working Time | Number of Professionals | Frequency |
|--------------|-------------------------|-----------|
| < 1 year     | 5                       | 8,3%      |
| 1 – 2 years  | 2                       | 3,3%      |
| 2 – 3 years  | 8                       | 13,3%     |
| 3 – 4 years  | 2                       | 3,3%      |
| 4 – 5 years  | 5                       | 8,3%      |
| > 5 years    | 38                      | 63,3%     |
| Total        | 60                      | 100%      |

The time factor may indicate that individuals who are working for longer time in a specific service present, if compared to those that joined the team recently, more knowledge and familiarity with the routines of the service, better understanding and assimilation of their roles and responsibilities, and have more consolidated relationships with the coworkers. Starting from this assumption, it can be considered that the professionals who are “veterans” are less likely to express work-related stress, than the “newbies”. However, this reasoning is not confirmed by the data obtained (Table 9): the scores for control and social support of the novice professionals (17.60 and 20.20) are higher than those from veterans (17.29 and 19.55), although the situation is reversed, slightly, in relation to demand (14.80 for professionals with less than one year of work in the service, and 14.76 for those with more than five years). From these data, it can be understood that, although experience and familiarity brought by years of work may, eventually, cause the demand to be felt less intense, the control and social support tend to decrease, a process can be caused by physical and emotional exhaustion, which are often lived by professionals working in emergency care.

Table 9 - Job Stress Scale scores and averages by dimension and working time in years

| (T) Work | Demand | Control | Social Support | Final Score |
|----------|--------|---------|----------------|-------------|
| <1       | 14,80  | 17,60   | 20,20          | 52,60       |
| 1 – 2    | 15,00  | 18,50   | 21,00          | 54,60       |
| 2 – 3    | 14,25  | 16,38   | 20,38          | 51,00       |
| 3 – 4    | 15,50  | 18,50   | 19,00          | 53,00       |
| 4 – 5    | 15,20  | 17,00   | 19,00          | 51,20       |
| >5       | 14,76  | 17,29   | 19,55          | 51,61       |
| Average  | 14,77  | 17,25   | 19,70          | 51,72       |

Analyzing the mean scores according to professional categories (Table 10), it is observed that they all remained above the average in demand (12.50) and control (15.00). These results demonstrate the coexistence among the study population, *high demand* and *high control*, resulting in the situation of *active work*: although the individual may experience a high burden of psychological demands in his/her work environment (and as a result of it), the individual has the resources to organize his/hers professional activities and cope with the difficulties, which make the demands less harmful. It is also noted the occurrence of values above average for social support (15.00), a dimension in which lower levels can bring negative consequences to the workers' health.<sup>9</sup> Therefore, the statement of *high social support* among the population suggests the existence of a friendly and cooperative coexistence among the professionals, and between those and their superiors, what probably contributes to minimizing the occurrence and intensity of occupational stress.

Table 10 - Job Stress Scale scores and averages, by dimension and category

| Category           | Demand | Control | Social Support | Final Score |
|--------------------|--------|---------|----------------|-------------|
| Nurse              | 14,25  | 17,75   | 21,50          | 53,50       |
| Physician          | 15,08  | 18,54   | 19,85          | 53,46       |
| Driver             | 15,29  | 17,06   | 19,94          | 52,29       |
| Receptionist       | 15,50  | 15,40   | 18,20          | 49,10       |
| Nursing Technician | 13,63  | 17,44   | 19,81          | 50,88       |
| Average            | 14,77  | 17,25   | 19,70          | 51,72       |

Comparing scores of various categories, it is noted that the highest levels of demand (15.50), the lowest rates of control (15.40) and the decreased social support (18.20) are found among the receptionists, which can infer that among all the professionals of this population, those are most likely to manifestation of work-related stress. On the other hand, the nursing technicians presented the lowest demand (13.63), physicians had the highest level of control (18.54), and nurses had the highest score for social support (19.85). It was also observed that the scores of each dimension, among the professionals of each category, did not suffer significant changes according to working time in the service (Table 11).

The high tendency to occupational stress detected among the receptionists is due to several factors. One of them is possibly the fact that these professionals perform the first contact with the person requesting emergency service, and probably encounter the most diverse manifestations of feelings such as fear, anguish and despair.

Table 11 - Job Stress Scale scores and averages, by dimension, category and working time in years

| Category           | (T) Work | Demand | Control | Social Support | Final Score |
|--------------------|----------|--------|---------|----------------|-------------|
| Nurse              | 1 – 2    | 14,00  | 18,00   | 20,00          | 52,00       |
|                    | 2 – 3    | 15,00  | 17,00   | 24,00          | 56,00       |
|                    | > 5      | 14,00  | 18,00   | 21,00          | 53,00       |
| Physician          | < 1      | 14,00  | 19,50   | 21,50          | 55,00       |
|                    | 1 – 2    | 16,00  | 19,00   | 22,00          | 57,00       |
|                    | 4 – 5    | 16,00  | 18,00   | 18,67          | 52,67       |
|                    | > 5      | 14,86  | 18,43   | 19,57          | 52,86       |
| Driver             | 2 – 3    | 15,00  | 16,33   | 19,33          | 50,67       |
|                    | 3 – 4    | 17,00  | 19,00   | 20,00          | 56,00       |
|                    | 4 – 5    | 13,00  | 17,00   | 19,00          | 49,00       |
|                    | >5       | 15,42  | 17,08   | 20,17          | 52,67       |
| Receptionist       | < 1      | 15,33  | 16,33   | 19,33          | 51,00       |
|                    | 2 – 3    | 16,00  | 14,00   | 20,00          | 50,00       |
|                    | 3 – 4    | 14,00  | 18,00   | 18,00          | 50,00       |
|                    | 4 – 5    | 15,00  | 14,00   | 20,00          | 49,00       |
|                    | > 5      | 16,00  | 14,75   | 16,50          | 47,25       |
| Nursing Technician | 2 – 3    | 12,67  | 17,00   | 20,33          | 50,00       |
|                    | > 5      | 13,85  | 17,54   | 19,69          | 51,08       |

The high control expressed by physicians can be attributed to the characteristics of the profession and the service organization, factors which favor the impression that this professional, among all the staff, is the one with more control available over his decisions and actions.

The low scores in demand stated by the nursing technicians lead to the following reflection: even when the demands imposed by work are intense, the professionals may not feel them as such, because they are capable of organizing themselves adequately to manage them (high control). It can be concluded that this is the situation of the nursing technicians. These professionals are primarily responsible for assisting in the occurrences to which they are sent (in units of basic support, accompanied by the driver), so they are inevitably exposed to high loads of demand. However, the fact that this category shows the lowest scores in this dimension, suggests that, in fact, the demands are not felt with such intensity, which possibly is due to the fact that these professionals present adequate level of control.

Concerning nurses as holders of higher levels on social support, the reflection becomes slightly abstract. It is not possible to identify specific characteristics related to these professionals profile and/or the functions performed by them, which might favor them in this dimension. Moreover, it must be considered that social support is built around the relationships developed among individuals, what makes it difficult arbitrarily

determine which factors contribute to the manifestation of lower or higher scores by the categories.

The other possible crosses among variables did not address results of a different nature from those found in these analyses performed or any aspect worthy of note.

## FINAL CONSIDERATIONS

Prior to analyzing the data collected, taking into account the characteristics of the urgency and emergency service and my own impressions and inferences, I built the expectation of verifying that the study population would present high level of occupational stress, revealed by the occurrence of high scores of demand and low scores of control. However, as demonstrated in the analysis, the reality reflected by the data appears to be quite different: it is a population that, although presents high demands, it also shows high levels of control and social support, living their work actively – thus, unlike the hypothesis from which this study came from, the SAMU team of Marília does not present evidences of stress related to work.

Given the disparity between expectations and the results found, it is possible to reflect that, contrary to the impressions cultivated by both the lay population and some health professionals from other areas, the urgency and emergency service is not necessarily composed of professionals with high level of stress. Although is not possible to generalize the reality observed in this study for all the other services of this nature, both hospital and pre-hospital, the results found can serve, at least in part, to demystify the characteristics of the service and the manner as demands are presented and felt by the professionals working on it.

Facing the limited supply of current literature about the professional's exhaustion in the services of pre-hospital urgency care, it is worth mentioning that conducting similar studies, among teams of this type of service, in different locations can facilitate the understanding of the phenomenon and built strategies for its management.

Finally, it is important to highlight the need to use a critical and evidence-based view when analyzing the characteristics and particularities of healthcare services, especially those that cause lay individuals and even health professionals working in other areas, superficial impressions (and sometimes erroneous) about its nature and reality, as it is the specialty urgency and emergency care. Indeed, the complexity and diversity of factors that determine how a given reality manifests for individuals, as they experience and deal with it and what effects are produced from this movement, cannot be determined and evaluated by simple assumptions – it is necessary to seek concrete answers, often diametrically opposed to the impression from which it started.

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