HEALTHCARE SETTINGS AND THE BURNOUT SYNDROME: A STUDY WITH PREHOSPITAL CARE NURSES

AMBIENTES DO CUIDAR E A SÍNDROME DE BURNOUT: UM ESTUDO COM ENFERMEIROS DO PRÉ-HOSPITALAR

AMBIENTES DEL CUIDAR Y LA SÍNDROME DE BURNOUT: UN ESTUDIO CON ENFERMEROS DEL PREHOSPITALARIA

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Objectives: to identify the environments where Fire Department nurses provide prehospital care, and to discuss the implications of these care settings with the development of burnout syndrome. Method: exploratory research with 105 nurses working in ambulances. For data collection, 23 quarters were visited from March to May 2014. The content of data collected in the instruments answered by the participants was analyzed. Results: care is provided in open and closed settings that create different reactions in the professionals. Two determinants of disease were found: closed settings, related to residences and to low-risk care, and open settings, related to the dangerousness of communities. Conclusion: environments are related to the risk for burnout syndrome because they contribute with moments of stress, despair, sadness, emotional exhaustion, depersonalization, and low professional achievement.

Healthcare settings and the burnout syndrome: a study with prehospital care nurses

o adoecimento pela síndrome de burnout, por contribuírem com momentos de estresse, desespero, tristeza, exaustão emocional, despersonalização e baixa realização profissional.


Objetivos: identificar los ambientes en que los enfermeros del Cuerpo de Bomberos realizan atendimientos prehospitalarios y discutir las implicaciones de esos ambientes del cuidar con el desarrollo de la síndrome de burnout. Método: investigación exploratoria, con 105 enfermeros actuantes en ambulancias. Para la recolecta de datos, fueron visitados 23 cuarteles durante los meses de marzo a mayo de 2014. El análisis de contenido de los datos recolectados se realizó a partir de los instrumentos respondidos por los participantes. Resultados: los atendimientos son realizados en ambientes abiertos y cerrados que proporcionan reacciones diferentes en los profesionales. Se encontraron dos motivos para dolencias determinantes: los ambientes cerrados, relacionados a las residencias y a los atendimientos de bajo riesgo y, los ambientes abiertos, relacionados a la peligrosidad de las comunidades. Conclusión: los ambientes están relacionados al riesgo de adoecer por la síndrome de burnout, por contribuir con momentos de estrés, desespero, tristeza, agotamiento emocional, despersonalización y baja realización profesional.


Introduction

The different scenarios where prehospital nurses are present during their shifts may have negative influences on their physical and mental health when the risks experienced by these workers are considered. Prehospital care (PHC) is understood as any care performed outside the hospital environment, outside the walls of the health networks, even where the event occurred, for people at risk. The care setting varies from a residence to a twisted car with a risk of explosion. The population, culturally, does not have the perception that health professionals are tired, exhausted, and get sick, especially those who work at fire departments, as is the case of the participants in this study. Firefighters are seen as superheroes, brave, untiring, and fearless individuals. However, they are workers like any other, who need attention and health monitoring, whose stressing, tiring, and dangerous factors that involve their work process should be considered.

Chronic stress, developed due to the disease-causing demands of the nursing work process in prehospital mobile urgency, can result in burnout syndrome in these workers. The burnout syndrome is linked to a disease involving one’s professional function, regardless of life problems or difficulties, usually associated with activities of constant and direct relationship with other people, such as help, care, and education. It is presented as a response to chronic labor stress, which involves negative attitudes and relationships related to users, organization, work process, and feelings of professional devaluation.

It is a multidimensional syndrome, comprising a set of three essential dimensions that specify and demarcate the phenomenon: emotional exhaustion, depersonalization, and loss of professional satisfaction. Emotional exhaustion is defined as the decrease or lack of energy, and the feeling of exhaustion of resources, and may have physical, psychic manifestations, or a mixture of these. Depersonalization is presented as an emotional insensitivity, in which affective concealment, detachment, impersonality, demotivation, alienation, and selfishness prevail. The loss of professional satisfaction is characterized by a negative self-assessment regarding one’s own job activities, resulting in a feeling of personal and professional inadequacy.

Nurses are likely to develop the burnout syndrome in the context of a lack of routines, care provision due to multivariate causes, presence of the unexpected at each emergency siren sound, as well as the travel to unknown places, regarding both the place itself and safety.
Healthcare professionals’ experiences imply constant emotional stress, attention and great responsibilities at each gesture. Associated with these factors, there is a concern about the scene of care and/or the necessary travel until the arrival of the PHC team. Risk scenarios are present in the daily life of first-aid nurses, when they work in places with drug trafficking, geographical instability, lack of access, lack of lighting and exacerbated noises, unlike those professionals who work in hospitals, in well-known and controlled settings.

The development of studies on this subject is considered essential for the understanding of factors and labor aspects that may contribute to the process of disease of nurses working in the prehospital environment.

The objectives of this study are to identify the environments in which fire department nurses provide prehospital care, and to discuss the implications of these care settings with the development of burnout syndrome.

Method

This study is an extract of the dissertation entitled “Prehospital Setting and Burnout Syndrome in the State of Rio de Janeiro Fire Department Nurses”.

This is a cross-sectional, exploratory study, which analyzed the content of data collected in instruments answered by nurses working in prehospital settings. The exploratory aspect allows the researcher to broaden and improve the ideas about the subject addressed, favoring the extension of his/her experience in the analysis of a certain problem. The cross-sectional type of study is linked to the need to know how individual or collective characteristics are distributed in a certain population.

The project was approved by the Research Ethics Committee of the Federal University of the State of Rio de Janeiro, according to Report number 502.797, of December 20, 2013, and met all ethical aspects involving studies with human beings.

The fields of study were 23 quarters of Rio de Janeiro’s Fire Department, Brazil, namely 19 in the city of Rio de Janeiro, 2 in the Baixada Fluminense, and 2 in the Metropolitan Region.

As inclusion criteria, participants should have at least one year of activity in PHC, and work directly with ambulance users classified as intermediate. Nurses who were not working at PHC, due to holidays or medical leave, and those working in inter-hospital transport ambulance teams were excluded because they provided care only in hospital settings.

During the study, the number of nurses who performed prehospital care totaled 145 (100%) professionals, with the study sample consisting of 105 (75%) nurses. Anonymity was ensured, and participants were identified by the acronym PHC, followed by an exclusive cardinal numeral.

For data collection, an instrument developed by the researchers was used, entitled “Evidence of action”, which aimed to know the reality experienced by nurses during the ambulance service, with a description of the number of events, occurrences, care settings, and physical and emotional reactions of nurses during their activities at PHC.

Data collection took place as follows:

a) a survey was conducted of the quarters that had primary mobile PHC vehicles with first aid nurses, based on the schedules published by the Nursing Division of the 1st Aid Brigade (GSE), management department of nursing professionals of the State Fire Brigade of the State of Rio de Janeiro (CBMERJ), excluding three vehicles that performed neonatal inter-hospital neonatal transport, based on the quarters of the city center of Rio de Janeiro, and in the municipality of Duque de Caxias;

b) 29 red folders were purchased with the purpose of facilitating the visualization, and to be a reference to the color of the institution, identified with the names of the military units. Each folder had 5 kits with the guidelines for completion of the instrument entitled “Evidence of Action” and the Free and Informed Consent Term, according to Resolution n. 466 of December 12, 2012. The number of folders prepared was
consistent with the number of vehicles with nurse officers working in the PHC. Although there were 23 military fire units, 5 of them had more than one intermediate vehicle, namely: Campo Grande - 2 vehicles, Jacarepaguá - 2 vehicles, Penha - 2 vehicles, Realengo - 2 vehicles, and Search and Rescue Brigade (GBS) - 3 vehicles. Units such as Santa Cruz, Ilha do Governador, Copacabana, Gávea, Humaitá, Centro, Catete, Parada de Lucas, Ricardo de Albuquerque, Irajá, Ramos, Guadalupe, Méier, Campinho, Niterói, Itaipu, Caxias, and the Group of Operations with Dangerous Goods (GOPP) had only one intermediate ambulance. The number of kits with instruments was related to the number of nurses per ambulance. Each intermediate car had five officers on a fixed schedule from Monday to Friday, with rotations on weekends, one per day;

c) the delivery of the instruments took place during the visits to the quarters, where the folders were left with the nurse officer on duty that day. The contact with the other four members of the vehicles was made daily by telephone, to clarify the object and objectives of the study. It was also requested that the folders should always be left in the quarters’ lodgings to facilitate finding them and to enable having a reference location;

d) the visits were scheduled according to the proximity among the units, as well as the return visits to collect the instruments answered. All of them were performed on Tuesdays and Fridays, from March to May 2014. Of the 140 instruments delivered, 105 (75%) were returned.

With the instruments answered, data analysis was organized through three chronological poles: pre-analysis, material exploration, and treatment of results, and interpretation.

After the instruments were organized and read, they were reproduced with the use of a copier, for the use of the cutting and pasting technique. The registered service settings and the complaints presented by the participants were cut. The cuts of the settings were grouped by similar characteristics, and pasted on a brown sheet of paper. For classifying the care settings in open or closed spaces, the structural characteristics were considered, i.e., presence or absence of masonry or any other type of construction that would allow the closure through lateral and upper protections.

During content analysis, the results related to care settings produced Figure 1. The participants’ speeches were analyzed, evidencing the physical and emotional reactions recorded according to the environment and the type of care performed. Subsequently, the data found were correlated to the influence or not of the development of the burnout syndrome, based on the theoretical framework used.

Results and Discussion

The settings described by the PHC nurses were grouped and classified according to Figure 1. When allowing the participants to report their physical and emotional reactions, considering the attendances and environments to which they were inserted in the 24-hour services in PHC ambulances, were found: tiredness, physical exhaustion, weakness, fatigue, stress, frustration, indignation, irritability, annoyance, bad mood, dissatisfaction, contempt, despair, sadness, willingness to cry, fear of dying, and the desire to never return to work.

According to the professionals, closed environments pose higher risks to PHC nurses. When entering a closed environment, such as houses, apartments, and buildings, the existing walls, which could be considered as protectors, expose professionals to unknown, hidden, camouflaged risks, making the general analysis of the scene difficult when they arrive. In open environments, as in the public roads, the possibilities of protection are greater, because nurses become visible care agents, with the presence of a greater number of people, and possibilities of more quickly evasion in case there is a risky situation. The alleys in the communities are excluded from this description. Closed environments, according to the participants, are usually related to clinical care, unlike what occurs in open spaces, with greater number of occurrences due to trauma.
Regarding the requests for care, the statements indicated that there is a preference for traumatic events to the detriment of medical ones. This fact may be related to the training of a military firefighter in 2008 (year of entry of all participants), which was structured to assist victims of trauma on the public highway. However, with the incorporation of the Mobile Emergency Care Service (SAMU) to the CBMERJ, which was responsible for home care, the care characteristics changed completely. Now, these are requests that configure new ways of getting sick or going crazy, contributing to the loss of sensitivity or the adoption of a tougher stance during low-complexity clinical care, unlike critical or difficult traumas that keep professionals on alert, by external stimulus.

One of the characteristics of the burnout syndrome is the dimension called depersonalization or cynicism, in which the professional adopts attitudes of disbelief, distance, coldness and indifference towards patients \(^{(16)}\). “The worker who was previously very affectively involved with his/her clients, with his/her patients or with the work itself, gets worn out and, at a given moment, gives up […] The worker loses the sense of his/her relationship with the work, gets uninterested, and any effort seems useless” \(^{(17-19)}\).

PHC nurses said that low-complexity care bothered them, and most of it was related to residential settings. Three excerpts from different participants are highlighted, in which records of anger, dissatisfaction, stress, and fatigue were found:

When we are called for home care, we know that we will probably find someone with no severe complaint. I already leave the quarters in anger. Unlike trauma victims, who need specific maneuvers and care […] (APH1).

When the alarm sounds for home care, I know it’s something foolish … when it’s serious, they find a way to take the victim to the hospital. The trauma victim is different. People can’t get a person who had an accident inside the car […] when they see blood they feel afraid. They wait for the firemen to arrive. (APH2).

I’d rather attend traumas all day long, I do not care if I stay on the street, because I know these victims need us. There is no one to do our job. I feel useful. When we go to residential events, I know I’m going to find a green victim. I get stressed! We work hard and get overwhelmed by unnecessary care. (APH3).

I can’t stand home care. When the bell rings and I see that it is a residence, I go with no patience. I like to attend traumas. I do not mind working. I kind of like it. But to provide unnecessary care is tiring! (APH4).

The low professional satisfaction demonstrated by the participants of this study, when they provide care that causes discomfort, stress, and frustration, as evidenced in residential settings, is one of the characteristics of burnout syndrome, corroborating feelings of displeasure with job activities, demotivation, low self-esteem, and professional failure \(^{(15)}\).

A study carried out with nursing professionals from CBMERJ in 2010, who worked in PHC, identified the SAMU, an attribution of this

Figure 1 – Disease settings

![Figure 1](image.png)

Source: Created by the authors.
corporation, as the main stressor of these professionals. For these subjects, the service became overloaded because, after this integration, in addition to the work related to CBMERJ’s own rescue situations, they also needed to provide care for domestic emergencies. Regarding the latter, they demonstrated frustration and low job satisfaction, because they believed that they had been prepared and trained to act in situations that are specific to firefighters, and the attendance at home was understood as an escape from the motto of the First Aid Brigade (GSE)\(^{16}\).

The frustrations and limitations faced by the workers in the daily work, in the execution of their activities, contribute to the loss of stimulus and the burnout syndrome. Regarding the latter, they demonstrated frustration and low job satisfaction, because they believed that they had been prepared and trained to act in situations that are specific to firefighters, and the attendance at home was understood as an escape from the motto of the First Aid Brigade (GSE)\(^{16}\).

The occupation and the job will determine most of the individuals' lives \(^{19}\). A satisfactory job determines pleasure, joy, and health. However, when it is devoid of meaning, is not recognized, or is a source of threats to workers’ physical and/or psychic integrity, it ends up by causing suffering to them.

Regarding care settings, and the narrated reactions, we also found reports of distress, fright, worry, fear, tension and apprehension, all related to the care provided in places of risk, such as communities and environments with drug trafficking.

To provide care in risky areas is very dangerous. I feel like nobody worries about us. I feel anxious, can’t even describe it. We are always humiliated. I wish this to nobody!\(^{16}\). (APH6)

In some communities dominated by drug trafficking in Rio de Janeiro, the rescue team is not welcome, a fact made explicit by the delinquents. However, in these places, people also need assistance; thus, conflict is created between the need to protect the integrity and the right of citizens to emergency care\(^{18}\). Prehospital nurses are included in this scenario when they are assigned to attend victims with clinical or traumatic injuries in residences or even on the public streets of the communities, witnessing unpleasant and fearful scenes, such as ostensive drug sale, traffickers with heavy weapons, and even undergoing duress, intimidation, and aggression by the delinquents.

Stress load that these professionals undergo reaches human limits, as a result of the work process involving exposure to risk during care provided in a variety of uncontrolled environments, increased pressure levels at each sound of the emergency siren, distress because they are totally unaware of the people who will be cared for, and situations of impact that are daily present in scenes of destruction, pain, and death\(^{15,19}\).

Emotional exhaustion, characterized by the fact that the individual is exhausted, unable to cope with another project, other people, and unable to recover overnight,\(^{17}\) was found in the speeches, as in the following examples:

This type of service already makes us exhausted earlier in the day. In 24 hours you will provide care in so many places that, at the end of the day, you can’t remember who the first victims were. In addition to having to run from one place to another, in many calls, we have to walk a lot, because the ambulance can’t reach the place, or we have to climb numerous stairs. In fact, when I arrive and I see that I have to climb stairs, I feel like crying. (APH9)

As soon as I arrive, I feel fine. As the hours go by, I get deconcentrated. This happens due to the fact that we go to many different places, mostly homes, and with no need for our presence, this makes me tired. When you really need energy, you don’t have it. In fact, after we started to attend for SAMU, everything got worse. We do two services concomitantly. (APH10)

Working 24 hours here is like working 72 hours, because that’s the amount of fatigue after work. We have a lot of responsibility and we are always charged for that. Even
According to the participants, being present in several settings to provide care contributes to the team’s exhaustion, adding up all necessary and unnecessary calls over 24 hours, often running, walking for long periods, and going up and down stairs. Permanent exhaustion is a predisposing factor to the worker’s illness, and can trigger constant and progressive fatigue, muscle or musculoskeletal pain, sleep disorders, headaches, migraines, gastrointestinal disorders, immunodeficiency, cardiovascular disorders, respiratory disorders, sexual dysfunctions, menstrual alterations in women, among others (15).

Thus, workers who present emotional exhaustion as a result of work-related activities may develop depression because they are subjected to chronic stress and to burnout syndrome (20), getting isolated from social contact and causing damage to contact with friends and family.

**Conclusion**

Prehospital nurses are present in several open and closed settings during care, but their main complaints refer to residential settings and communities with drug trafficking. In addition to stress, they also report despair, sadness, emotional exhaustion, depersonalization, and low professional satisfaction, related to the process and to the work environments, thus characterizing the risk for developing burnout syndrome.

It was possible to conclude that these environments are related to the risk for the burnout syndrome, because they contribute with moments of stress, despair, sadness, emotional exhaustion, depersonalization and low professional satisfaction.

A limitation of this study was the research instrument used, since it considered information about only one day of service, which can positively or negatively influence the responses, according to the amount of calls and characteristics of the care provided.

**Collaborations:**

1. design, project, and data analysis and interpretation: Aline Coutinho Sento Sé, Thiago Augusto Soares Monteiro da Silva and Nébia Maria Almeida de Figueiredo;

2. article writing and relevant critical review of its intellectual content: Aline Coutinho Sento Sé and Nébia Maria Almeida de Figueiredo;

3. final approval of the version to be published: Aline Coutinho Sento Sé and Nébia Maria Almeida de Figueiredo.

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