Fatigue levels among Family Health Strategy professionals in the Brazilian countryside

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Abstract

Introduction: This research addresses fatigue within the team of nursing professionals of the Family Health Strategy (FHS). Objectives: To describe the fatigue levels of FHS nursing professionals. Identify the presence of fatigue among nursing professionals. Method: The research has a descriptive-analytical, quantitative character. Questionnaires were applied to a sample of 112 professionals at basic family health units in the city of Uberlândia, Brasil. Simple and applied statistics were used in order to collect the data. Results: The study showed that the sample had a greater predominance of females, aged between 30 and 49 years, with a greater number of nurses and who have only one job. It was identified with the DUFS questionnaire that 20, 8% say that they always need extra energy to handle their daily tasks and that 36.9% of professionals have had the need to rest more. Thus, this research shows the presence of fatigue in 70.8%

of professionals. Conclusion: Evaluating the projections of fatigue on the body, this research shows self-reported signs that are already present signs, which can be recognized as symptoms and that translate signs of compromise, at some level, of the well-being of the workers in question, certainly reflecting on daily life, which may also compromise the health of these workers and their performance.

Keywords: Fatigue; Nursing; Occupacional Health.

1. Introduction

The Family Health Strategy (FHS) comprises a collective, multi-professional approach, systematized and guided by family health teams that involves doctors, nurses, nursing technicians, dentists, assistants and / or technicians in Oral Health and Community Health Agents (CHA) that are centered on the family and the community considering the human being at the individual and collective level as a subject and social actor (Backes, Backes, Erdmann & Büscher, 2012).

FHS is essential in the community, since its primary activities are developed to protect health, promote well-being and treat pathologies resulting from the population, in addition to being able to identify the difficulties and risks that affect the residents of a given region, because in this strategy, the family becomes the focus of attention (Almeida, 2014). Studies show that in the health team it has been possible to identify and understand situations of stress and dissatisfaction with work by nursing workers, which points to little attention to their own health conditions (Camelo & Angerami, 2008).

The FHS health teams must be able to identify and attend to some aspects relating to the health of the population, among which the following stand out: the epidemiological and sociodemographic reality of families, recognizing the prevalent health problems and the risks that the population is exposed to, planning facing the triggering factors of the health-disease process, using the referral and counter-referral system, meeting spontaneous and programmed demands, promoting health education and improving individuals' self-care and encouraging intersectoral actions to face problems (Costa & Carbone, 2009).

In this context, the nursing team develops actions aimed at care, both for the scope of individual care or collective care, with teamwork, structures, technologies, goals, environment and user satisfaction being articulated. This service production aims to meet the health needs of the population with the integration of the different levels of the Unified Health System, showing the improvement in the quality of care provided in primary care (Kawata, 2011).

Caring is the work tool of these professionals, but this care can represent the cause of damage to their own health, as the work requires from these workers a routine loaded with great tension, capacity for reflection, critical analysis and constant improvement and updating of information. their technical-scientific knowledge. In addition, these professionals have long working hours, which can cause these workers, exhaustion, fatigue and affect their quality of sleep (Gontijo, 2012).

Nursing is considered a risky profession due to the exposure that the professional encounters daily, compromising his health and triggering a large number of accidents at work, occupational diseases, mental illnesses and fatigue (Silva & Pinto, 2012). Studies have found significant results for fatigue in workers from different branches of professional activities, including in the scope of health and nursing (Almeida,

2014).

In the hospital environment, the object of work of health professionals is patients and their families during the hospitalization process, with short and long-term procedures. In primary care, the object of work extends to the entire community assisted by the health team, being characterized by caring for people in a situation of illness and also within the scope of health promotion (Biff, 2016).

Nursing represents an important portion of health workers, becoming a key player in the actions performed by them. Due to this fact, the different situations experienced by nursing professionals when taking care of clients lead them to exposure to risks of physical and psychological disorder, which can be exhaustion and fatigue (Gontijo, 2012). In this research, the core of evaluating the exposure to risks of psychic disorders was: fatigue, which will be explained below.

Fatigue is defined by Aurélio as extreme tiredness or exhaustion, physical and / or mental, caused by repetitive effort or intense work (Ferreira, 2010). However, according to Queiroz (2003), fatigue is experienced by many people, however, its origin is complex and generated by the influence of several factors. This consideration given by Queiroz (2003) allows us to understand that fatigue may not be caused only by repetitive effort or intense work.

The aforementioned consideration is also added, the concept given by Mota, Cruz and Pimenta (2005). They state fatigue as an acute or chronic experience, a subjective symptom denoted by the ineffective performance of tasks, self-perceived inadequacy, aversion to activities, tiredness, feeling of weakness and discomfort. A symptom that incorporates every sensation in the body, ranging from tiredness to exhaustion, providing the professional with a condition of lack of relief that interferes with their abilities (Mota, Cruz & Pimenta, 2005). França and Rodrigues (1997) clarify the consequence of fatigue, which at its peak contributes to absenteeism at work and various psychological disorders, which, therefore, can affect the personal, family and social life of nursing professionals.

Despite the associations between fatigue and exhaustion, Silva (2011), Kroemer and Grandjean (2005) elucidate that fatigue is considered a state of physical and or mental exhaustion that can cause malaise and lack of energy that may not be exclusively related to exhaustion . Fatigue has the consequence of decreasing the capacity to perform work, resulting in loss of efficiency and a lack of interest in any activity, but it is not a single and defined state. Therefore, fatigue at work can cause changes in the mechanism of psychophysiological control when it is no longer able to meet the demands of work or meet them at the expense of increased effort and physical and mental resistance (Silva, 2011; Kroemer & Grandjean, 2005).

Oliveira and collaborators (2010) explain that the appearance of fatigue can manifest itself in workers of different types of activity, from workers to health professionals. Work-related fatigue, however, can be associated with working conditions, which show how the symptoms are generated: overwork, pressure for production, the existence of an intense rhythm, lack of autonomy, lack of recognition in relation to work. performance, long journey, little time for rest and vacations, physical risks, complexity of the activity, posture during execution and among others. These conditions favor the appearance of fatigue, and the forms of its manifestation can be given at different levels, depending on the individual's relationship with the harmful activity (Oliveira, Viganó, Lunardelli, Canêo & Goular Júnior, 2010).

Finally, the concept of fatigue can be referred by nursing workers as excessive stress causing physical or mental, psycho-emotional suffering, compromising their quality of life and their work routine (Almeida,

2014). Silva (2011) explains that the work performed by nursing professionals is considered to be highly complex and exposed to high risks. This is because, according to the author, these workers handle dangerous and biological infectious chemical materials, performing, however, health risk procedures. It is also reinforced that there are risks to mental health due to the high level of tension to which they are exposed in the work environment (Silva, 2011).

With a return to the concept given by Mota and Pimenta (2002), they highlight that fatigue can only be identified by self-report by each worker, which explains why it is considered a subjective phenomenon. Therefore, the attributes can be identified through mention by the fatigued subject or by behaviors that he may present during his work routine (Mota & Pimenta, 2002).

Within the scope of nursing studies, specifically, fatigue presents itself as a negative emotion, feeling of decreased strength and endurance, exhaustion, mental or physical tiredness, indifference to less physical or mental work capacity (Conselho Internacional de Enfermeiros, 2011). While the North American Nursing Diagnosis Association (Nanda) presents a definition not different from that given by Mota, Cruz and Pimenta (2002): "an oppressive feeling, sustained by exhaustion and reduced capacity to perform physical work and mental at the usual level "(Nanda, 2013, p. 287).

The professional activities that guarantee survival and determine the social situation of the individual, depending on the conditions in which the work is performed, can become painful and painful for the worker, which before could be something of motivation and satisfaction, becomes sacrificing, making the relationship difficult and a drop in income may occur (Almeida, 2014). After all, as Fiamoncini and Fiamoncini (2003) approach, the consequences of fatigue can be: loss of productivity in physical and mental activities, headache, depressed state and a general state of exhaustion.

The nursing team in the family health strategy (FHS) is composed of one or two generalist nurses or specialists in Family Health and one or two nursing assistants or technicians. Nursing work, especially with regard to organizational aspects, exposes workers to a series of physical and mental stressors, which can interfere with work capacity and cause fatigue in these workers, which lead to a general feeling of tiredness . The direct consequence of fatigue is the loss of efficiency, that is, the decrease in the work capacity of the nursing team (Mauro & Veiga, 2008).

The nursing team, however, whose essence is permanent health care, is daily exposed to the risk of developing fatigue. This is because these professionals face work overload focused on direct contact with patients and family members, overload of responsibilities, double shifts and crisis coping and management. For nursing professionals, fatigue is harmful both in personal and professional life, as it can negatively affect not only their health, but also the quality of care provided, thus interfering with the priority of the service, which is the technical and humanized in customer service (Lorenz, Benatti & Sabino, 2010).

Health professionals who work in the FHS, as they are working in primary care, are considered responsible for ensuring access to the health system, providing comprehensive care to the registered population. Thus, these workers are exposed to several occupational stressors since they work not only within the services, but also outside the work environment, conducting home visits, health promotion and prevention groups, visits related to epidemiological surveillance and among others. Due to their function being directly at the "entrance door", it is perceived that they can deal directly with the demand and complaints of each client and their family and with the limitations of the health system, such as: lack of doctors, lack of vacancies in

reference services for exams and medical consultation, inadequate infrastructure, etc.

Studies indicate that when health professionals are fatigued, with exhaustion they are more prone to accidents, negligence and errors at work. Reflecting directly on the decrease in the quality of work, decrease in creativity, productivity and organizational commitment, in addition to being more predisposed to bad practice, compromising patient safety. It also affects the worker's family and social relationships (Silva, 2015).

In the context addressed above, the presence of fatigue levels in nursing professionals, can cause problems such as poor performance, decreased quality of services and staff evasion. In addition to creating feelings of professional incompetence, accidents and effects of fatigue on social life. And an increase in the risk of depression, as well as infections and cardiovascular diseases (Vasconcelos, 2009).

Therefore, the present research has as a problem the fatigue in a professional nursing public of the Family Health Strategy, which is questioned: what is the level of fatigue among the nursing professionals who work in the Family Health Strategy? The aim of this study was to analyze the fatigue levels of nursing professionals in the Family Health Strategy in Uberlândia.

2. Methodology

2.1 Outline

This is a descriptive, cross-sectional study, with a quantitative approach, to identify the fatigue level of nursing professionals who work in the FHS units, in Uberlândia / MG.

2.2 Population and Location

The research took place in the city of Uberlândia - MG (2018), state of Minas Gerais, Brazil. where there are 74 FHS teams that vary in number of professionals. Participants in this study were: assistants, nursing technicians and nurses from the Family Health Strategy (ESF) teams in Uberlândia - MG. At the time of application of this study, the city of Uberlândia contained 73 nurses and 93 nursing technicians and assistants, out of a total of 166 professionals who worked in ESF's.

However, 112 subjects participated in the research with consent, which made up the population of this study (N). Considering the ethical and legal aspects related to research involving human beings (Resolution 466/12), the present study received authorization from the service for its realization, was submitted to the evaluation of the UFU Ethics and Research Committee according to CAAE nº 47651315.4.0000.5152 and opinion final substantiated No. 1,315,972 obtained on 11/10/2015.

All study participants were invited and duly informed about the research, their rights, possible risks and the care guaranteed to them. After agreeing to participate, they signed the Free and Informed Consent Term in two copies signed by the researcher and participant, one copy of the researcher and the other copy of the participant, as regulated by the provisions of Resolution 466/12 of the National Council of Health.

2.3 Data collect

Data collection was carried out from June to August 2016. In this stage, meetings were held with nursing professionals so that everyone could be informed. This meeting was between the Management of these

places that would first explain the purpose of the research and, later scheduling to be going to these places for its application and scheduling with a minimum of seven and a maximum of 15 days for the collection of the questionnaires.

After collection, the second stage of the study was continued. The data was posted to the bank and the statistical treatment was performed. This stage started in August and ended in September 2016.

The instrument for data collection consisted of a structured, self-administered questionnaire, divided into two parts: first part referring to socio-demographic and professional information; second part regarding fatigue assessment.

Regarding socio-demographic and professional information, the following variables were collected: marital status, religion, race, occupational and educational situation. These variables facilitated the characterization of professionals.

Regarding fatigue, the Dutch Fatigue Scale - DUFS and Dutch Exertion Fatigue Scale - DEFS scales were used to evaluate it. These scales were developed by three Dutch people (Tiesinga, Dassen and Halfens) and published in 1998. DUFS measures fatigue defined as an oppressive and sustained feeling of exhaustion and reduced ability to perform physical and mental work at the usual level. DEFS measures effort fatigue defined as 'fatigue that is directly related to activity.

The DUFS was composed of 8 items, with 5 points (1-5), to be answered by self-report. The fatigue symptoms were described in the form of 8 questions, which, through their own report, the participants would indicate the level that they presented / felt each symptom. Thus, they should mark with an X in one of the five smaller squares between "no" and "yes". The "no" meant that the situation did not occur, and the "yes" stated that it occurred very often. The questions contained the term lately which referred to the last 3 to 6 months.

The symptoms were questioned by the following questions:

1. Have you been experiencing a strong and constant feeling of lack of energy lately?
2. Have you noticed lately that you need more energy to handle your daily tasks?
3. Are you feeling unwilling to do things lately?
4. Have you been waking up lately with the feeling of being exhausted and worn out?
5. Have you been needing to rest more lately?
6. Lately have you been able to do your day-to-day activities?
7. Has your interest in sex lately decreased, your desire to have sex?
8. Has it been more difficult to focus on one thing for a long time?

2.4 Data analysis

For the analysis of the data, the program Statistical Program of Social Science - SPSS - version 18 for Windows was used in which the data used came from the database elaborated in the second stage of the collection. The descriptive analysis of the data was presented in numbers, percentages, minimum and maximum values, means and standard deviation.

Fini (2008) in a study on the scale's internal validity, sensitivity and specificity of the scale defined that in individuals with 2.0 points or more, they would be considered fatigued. The criterion validity of the scales was tested with 112 patients observing correlations of 0.85 between the DUFS. Scales with 8 items with

dichotomous responses, which therefore provide total scores from 0 to 8, were also tested for sensitivity and specificity. These tests made it possible to define a cutoff point for DUFS and serve to discriminate between fatigued (DUFS <2.0) and non-fatigued (DUFS ≥2.0).

3. Results

The socio-demographic characteristics show that the number of professionals is predominantly female (93.8%). Other characteristics noted were that 66.7% of the sample declared marital status as married. It appears that 55.7% completed higher education. It became evident that most nursing professionals have a Christian religion (Catholic 46.3%, Evangelical 35.2%, Spiritist 14.8%). In "unspecified", it is observed in a minority (3.7%). This last percentage groups those who indicated the alternative "others" of the question about religion.

In the age group distribution of the studied population, the age most frequently, as shown in Table 1, occurred between 30 and 49 years, with no difference between men and women. The analyzed professionals, 47 (42.3%) are in the age group of 30 to 49 years.

As for the "position they hold", there is a greater number of nurses (48.6%) than the number of nursing technicians (40.4%). It can be seen that 11% of the sample are nursing assistants; 85.3% of the sample have only one job and 14.7% have two jobs. It is also noted that 36% have about 5 to 10 years of work.

Table 1. Fatigue symptoms by nursing professionals at ESF's, Uberlândia, 2016, (n=112).

Fatigue Symptoms	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
	N **%**	**N** **%**	**N** **%**	**N** **%**	**N** **%**
Have you noticed lately that you need more energy to handle your daily tasks?	33 32,7	24 23,8	13 12,9	10 9,9	21 20,8
Have you been experiencing a strong and constant feeling of lack of energy lately?	42 41,2	27 26,5	8 7,8	9 8,8	16 15,7
Lately have you been feeling unwilling to do things?	43 41,7	24 23,3	10 9,7	13 12,6	13 12,6
Have you been waking up lately with the feeling of being exhausted and worn out?	31 30,1	27 26,2	13 12,6	12 11,7	20 19,4
Have you been needing to rest more lately?	22 21,4	20 19,4	10 9,7	13 12,6	38 36,9
Lately have you been able to do day-to-day activities?	51 51,0	24,0 24,0	4 4,0	9 9,0	12 12,0

Lately your interest in sex, your desire to have sex decreases?	45 43,7	25 24,3	8 7,8	9 8,7	16 15,5
Has it been more difficult to focus on one thing for a long time?	36 35,3	28 27,5	6 5,9	14 13,7	18 17,6

Table 1 presents statistical information regarding the participants' fatigue symptoms. It is noteworthy that 20, 8% say that they always need extra energy to handle their daily tasks. Table 2 also shows that 36.9% of professionals need to rest more.

Table 2. Distribution of workers according to the presence of fatigue Uberlândia, 2016, (N = 96).

	N	**%**
Normal	28	29,2
Altered	68	70,8
Total	96	

	N	**Minimum**	**Maximum**	**Averege**	**Dp**
Fatigue sun	96	8	40	19,86	8,120

The data in Table 2 show the presence of fatigue in 68 workers, that is, 70.8% of nursing professionals have some indication for the level of fatigue. Table 5 shows that the standard deviation for the number of workers shown in Table 4 is 8,120.

4. Discussion

The population of nurses studied was predominantly female, (93.8%) following the historical characteristics of the profession stated by Souza et al (2014) and similar to the studies by Martins (2002), Almeida et al. (2004) and Sancinetti (2009). Regarding marital status, married workers and those living with a partner correspond to the majority (66.7%). Associated with the predominance of females in the profession and marital status, women often work a double shift. This shows an overload of work as a result of the multiple hours, which can cause fatigue to the woman, considering that her insertion in the job market, did not disconnect her from the domestic chores and care for the children, accumulating several assignments and work overload (Spíndola, 2000).

The research shows that most of the participants are adults, with an average period of time in the profession being 5 to 10 years, in the FHS, with the number of Nurses (48.6%) being greater than other professionals. These associated data can be understood in Brazil. The ESF, a model of health care organization, in the scope of primary care and primary care, in line with SUS guidelines and principles, has nurses as an important member of the multidisciplinary basic team, which has represented a field growth and social

recognition. This is because it is an active component in the process of consolidating the Strategy as an integrative and humanizing health policy (Silva, Motta & Zeitoune, 2010).

Regarding employment, the majority (85.3%) reported having only one job. The reason for this majority can be explained by the different remuneration of workers in the institutions under study, given that the double and even triple working hours in nursing can generally be understood by the low remuneration of this category (Vianey & Brasileiro, 2003).

About 20.8% of respondents answered that they need more energy to cope with their daily tasks. According to Kirchhof, Lacerda, Sarquis, Magnano and Gomes (2011), fatigue can occur if the replacement of the biofunctional capacity of the worker's body is not sufficiently recovered during his time off. Therefore, Fernandes, Miranzi, Iwamoto, Tavares and Santos (2012) explain that the opportunity to participate in recreation and leisure activities may be hindered by the percentage of nursing professionals who work in the FHS with a workload of more than eight hours a day. In another study by Elias and Navarro (2006), nurses highlighted the perception of insufficient time for rest and leisure in their speech. However, the need for survival forces them to submit to conditions of life and work that lead to fatigue at work.

So that these professionals, in this way, develop a quality work, stimulating the community in search of better health conditions, it is understood that the health professional needs quality of life, that is, he needs leisure, rest, practice of sports, and others. Because these factors that interfere with it can compromise the quality of care provided (Fernandes et al., 2012).

In research by Miranda, Silva Neto, Mello, & Antunes (2013) made with young people showing signs of anxiety, showed that the higher the intensity of physical exercise, the more it is anxiolytic for young people, with the ability to reduce the end of fatigue. This result may not be different with nurses, which is possible for young nurses to benefit from knowledge of this nature to feel stimulated and improve their quality of life.

A percentage of 36.9% of respondents reported that they have a need to rest more lately. Souza (2007) explains that when the nursing professional does not have a good rest, one of the problems that evolve is exhaustion or fatigue, in addition to drowsiness during work. Overwork may favor the appearance of a set of symptoms that affect workers physically and mentally, including ease of being distracted, drowsiness, decreased ability to concentrate, and may progress to memory lapses and confusion (Iida, 2005).

Research carried out by Lancman and Sznelwar (2011), provoke the idea that quality and lifestyle are directly related to sleep quality. Stress at work and poor sleep quality often lead workers to develop fatigue. Thus, sleep is characterized by a decrease in consciousness, reduced skeletal muscle movements and sluggish metabolism, being an essential restorative function for the nursing team.

The daily work of nursing in the FHS is visibly permeated by demands for activities and responsibilities, which has led workers to face wear and tear that can be described through a set of signs and symptoms that is reflected on the physical and mental body of workers, in the process of developing work activities, creating overload. This directly influences the worker's way of producing, since it can cause emotional instability and a deregulation of the organism, causing the appearance of signs of fatigue (Hanzelmann & Passos, 2010).

Therefore, Table 3 shows that 70.8% of workers have some indication of fatigue. With regard to this data, studies indicate that when health professionals are fatigued, with exhaustion they are more prone to

accidents, negligence and errors at work. This directly reflects in the decrease in the quality of work, in the decrease in creativity, productivity and organizational commitment, in addition to being more predisposed to bad practice, compromising patient safety. It is also added that it can affect the worker's family and social relationships (Silva, 2015).

Cross-sectional study carried out with workers in an urgency and emergency hospital in Rio Branco (Acre) brought results showing that most of them have high levels of fatigue and inadequate work capacity (Vasconcelos, Fischer, Reis, & Moreno, 2011). Thus, it is thought that among the various consequences in the work environment, fatigue can cause low performance, high rates of absenteeism, high risk of being involved in work accidents or making mistakes in the activity developed, development of stress injuries, among others.

According to Makowiec-Dabrowska, Koszada-Włodarczyk, Bortkiewicz, Gadzicka & Siedlecka (2009), in a survey of 114 men and 147 women, who analyzed the perception of fatigue and energy expenditure performing the same type of task with high physical demands, it was observed the perception of fatigue and higher energy expenditure in women. In this result, it can be assumed that, although women have only one job in the present study, they have a double workday, with the second day being domestic activities. Due to this fact, in a given time the worker may suffer with greater physical wear and consequently be more fatigued than men (Almeida, 2014).

According to Silva (2011), in an investigation carried out with workers at the University Hospital of the University of São Paulo, it showed that fatigue was detected in more than half of the nursing workers among the subjects surveyed.

Thus, the signs of fatigue manifested in the body of the workers studied, self-reported, may be expressing both physical and psycho-emotional wear, which may be due to workloads and tension resulting from the nature and meanings of the FHS in the context of changes in course in the health area, particularly in the scope of primary care (Almeida, 2014).

5. Conclusion

This study, which aimed to characterize nursing workers, from the Family Health Strategies, regarding socio-demographic and professional data and to verify the association between fatigue and their ability to work allows the following conclusions to be drawn: predominance of female and married sex. Regarding professional characteristics, it was noticed that the majority of workers are nurses, with an average period of time in the profession ranging from 5 to 10 years and only an employment contract, but with factors of extension of the workday such as housework and care with the children.

The results found in this research on the referred fatigue signs, the analyzed data point to a fatigue condition, as these workers already perceive and refer to signs that allowed this study to classify signs of fatigue in 70.8% of FHS nursing professionals.

In view of the aforementioned result, the assessment of fatigue projections on the body showed self-reported signs that objectively elucidated the alert that has been insinuating itself in this research for a possible vulnerability of the studied population. They are, therefore, signs already present, which can be recognized as symptoms and which reflect signs of commitment, at some level, to the well-being of the

workers in question, certainly coming to reflect on the daily work of the group. This may affect the results of the work performed or even compromise the health of these workers and their performance.

With the consideration of the characteristics of the nursing work and the working conditions in the primary health care environment, therefore, individual and collective interventions of an environmental and organizational nature are necessary. These actions aim to restore and maintain the capacity for work, reduce fatigue and allow improvements in the health conditions and quality of life of this population.

With the results of this research, those responsible for the safety and health of nursing professionals are recommended to promote and protect the health of these workers, and programs can be developed in order to increase the likelihood of keeping them protected from harmful effects that this work produces. Nursing is considered a risky profession due to the exposure to which the professional undergoes daily, compromising their health and triggering occupational diseases and accidents at work and even high levels of fatigue, this explains why the profession deserves the appropriate actions.

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