

Headache among nurse's aides working at emergency care hospitals

Cefaleia entre auxiliares de enfermagem que trabalham em hospitais de emergência

Carlos Augusto Ferreira Lobão¹, Albedy Moreira Bastos², Rafael Brito Santos³, Edson Júnior Gonçalves Bechara⁴, Thiago Toti Amaro da Silva⁴, Eduardo Anderson Duarte Cavalcante⁵, Ana Paula Domingues Mergulhão⁶

RESUMO

Introdução. Técnicos de enfermagem trabalhando em hospitais de emergência são expostos a vários fatores estressantes, sendo a cefaleia uma queixa comum entre eles. **Objetivos.** Caracterizar a ocorrência de cefaleia entre técnicos de enfermagem de hospitais de emergência. **Método.** Utilizamos um questionário para analisar a cefaleia em técnicos de enfermagem de dois hospitais públicos de emergência em Belém, Brasil. **Resultados.** A prevalência de cefaleia foi de 65%. Mulheres (76%) sofrem mais de cefaleia que homens. A faixa etária mais acometida foi entre 45 a 54 anos. Auxiliares casados relataram mais cefaleia (73,5%) que os de outros estados civis. A maioria sofria de cefaleia uma vez por mês, com duração de 30 minutos, de caráter em pulsação, bilateral e de forte intensidade. Os sintomas associados mais frequentemente foram a fonofobia, náuseas e fotofobia. **Conclusão.** A cefaleia é um fator que afeta a saúde de técnicos de enfermagem que trabalham em hospitais de emergência públicos em Belém, Brasil.

Unitermos. Cefaleia, Epidemiologia, Auxiliares de Enfermagem

Citação. Lobão CAF, Bastos AM, Santos RB, Bechara EJG, Silva TTA, Cavalcante EAD, Mergulhão APD. Cefaleia entre auxiliares de enfermagem que trabalham em hospitais de emergência.

ABSTRACT

Introduction. Nurse's aides working at emergency care hospitals are exposed to many stressful factors. Headache is a common complaint among them. **Objectives.** To characterize the occurrence of headache among nurse's aides working at emergency care hospitals. **Method.** We used a questionnaire to analyze headache among nurse's aides in two public emergency care hospitals in Belém, Brazil. **Results.** The prevalence of headache was 65%. Women reported more headache than men (76%). Ages between 45 to 54 years old were more frequently affected. Married individuals reported more headache (73.5%) compared to individuals with other marital status. Episodes of headache occurred more often once a month, lasting 30 minutes, with a bilateral and pulsatile characteristic (54%), these episodes were more often considered of strong intensity. Common associated symptoms were phonophobia, nausea and photophobia. **Conclusion.** Headache is a factor that affects the health of nurse's aides working in public emergency care hospitals in Belém, Brazil.

Keywords. Headache, Epidemiology, Nurses' Aides

Citation. Lobão CAF, Bastos AM, Santos RB, Bechara EJG, Silva TTA, Cavalcante EAD, Mergulhão APD. Headache among nurse's aides working at emergency care hospitals

Hospital do Pronto Socorro Municipal de Belém – Hospital Mário Pinotti, Belém-PA, Brasil.

1. Neurocirurgião, Mestre, Hospital Saúde da Mulher, Hospital da Benemérita Sociedade Portuguesa Beneficente do Pará e Hospital do Pronto Socorro Municipal de Belém – Hospital Mário Pinotti, Belém-PA, Brasil.

2. Neurocirurgião, Mestre, Professor Auxiliar de Neurologia da Universidade Federal do Pará, Hospital da Benemérita Sociedade Portuguesa Beneficente do Pará e Hospital do Pronto Socorro Municipal de Belém – Hospital Mário Pinotti, Belém-PA, Brasil.

3. Neurocirurgião, Hospital da Benemérita Sociedade Portuguesa Beneficente do Pará e Hospital do Pronto Socorro Municipal de Belém – Hospital Mário Pinotti, Belém-PA, Brasil.

4. Médico formado pela Universidade Federal do Pará, Belém-PA, Brasil.

5. Acadêmico de Medicina da Universidade Federal do Pará, Belém-PA, Brasil.

6. Acadêmica de Medicina do Centro Universitário do Estado do Pará, Belém-PA, Brasil.

Correspondence:

Carlos Augusto Ferreira Lobão
Tv. do Chaco, 1503
CEP 66085-220, Belém-PA, Brasil
e-mail: caflobao@yahoo.com.br

Original

Received in: 16/05/14

Accepted in: 14/04/15

Conflict of Interest: no

INTRODUCTION

Headache is one of the most common complaints in clinical practice, and being a public health problem. It has an estimated prevalence of more than 90% during a lifetime in the North American population, and usually is associated with disabling symptoms¹.

Headache is the second most frequent cause of attendance in emergency care units². It is also the third most frequent reason that takes a patient to a generalist physician ambulatory and the first complaint in neurologist's ambulatories³.

Some authors say that migraine is more disabling than diseases like systemic arterial hypertension, osteoarthritis, and diabetes. Besides individual suffering, headache also has direct economic losses (expenses with medical consultations and medicines), and indirect expenses (absences at work and low productivity)⁴.

In the general population, including Brazilian studies, there is a high prevalence of headache during the lifetime of an individual that ranges from 71 to 96%⁵⁻⁸. A Brazilian study among medicine and psychology students showed a prevalence of headache of 98.8%⁹. The prevalence of headache among health care professionals working in a teaching hospital was found to be 61% in another study¹⁰. These data points to an association between the stressful working related to health care and the prevalence of headache.

Considering the Brazilian population, a headache prevalence was found to be 74.1% in a study in Santa Catarina, Brazil¹¹; another study showed a prevalence of 53.2% in Espírito Santo, Brazil¹², and a third study found a prevalence of headache of 71.3% in Rio Grande do Sul, Brazil⁴.

The socio-economic impact of headache in patients' life is considerable¹³. A Canadian study found that 77% of the studied population had limitations in their daily activities caused by migraine, 50% had to stop their activities because of the pain, and 30% were obligated to stop their activities and lay down during the episodes^{14,15}.

A research conducted with health care professionals at a hospital in Ribeirão Preto, Brazil, found that 24.1% of those who suffered headaches had problems in family relations¹⁶.

It is estimated that professions related to health care are the third category of professions that suffers the most with emotional stress related to work¹⁷. Nursing can be considered the fourth most stressful career in the public sector¹⁸. These professionals are in constant contact with processes of pain, disease, and death. This issue can generate anxiety and the feeling of loss, especially considering nursing procedures that are sometimes uncomfortable, painful, and invasive to the patient¹⁹. Last but not the least, working at an emergency care unit is a physical and mental stressful experience for the health care team¹⁸.

There are few epidemiological studies in Brazil that relates headache and how it affects the daily life of health care professional. That is why the objective of this study is to analyze the occurrence and characterize headache among nurse's aides working in emergency care hospitals in Belém, Brazil.

METHOD

Sample

This study was approved by the Ethic Committee in Research of the Federal University of Para, in Brazil (protocol #115/2010).

We studied nurse's aides in two emergency care hospitals in Belém, Brazil, the Mário Pinotti Hospital with 319 nurse's aides working in it, and the Humberto Maradei Pereira Hospital, with 220 nurse's aides. Our research included 300 aides, 173 working at the Mário Pinotti Hospital, and 127 working at Humberto Maradei Pereira Hospital. All professionals studied signed the informed consent form to participate in this study.

All nurse's aides that participated on this study worked on 6 or 12 hours shifts. These shift could be diurnal or nocturnal and depends on specific working contracts signed between the professional and the hospital.

It is an observational, cross-sectional epidemiological survey to analyze and characterize headache as a symptom among nurse's aides working in emergency care in two public hospitals in Belém, Brazil. The study was conducted in the period between August to December, 2011.

Procedure

We created a questionnaire based on the International Headache Society (HIS)²⁰ diagnostic criteria that was translated to Portuguese and used by the authors for this paper (Annex 1). We did not have the opportunity to validate this questionnaire yet, so we present it as a pilot study that still needs a strategy to be validated.

The questionnaire is composed of closed and open questions. These questions were related to age, gender, religion, city of birth, ethnic group, marital status, and headache related questions: age of beginning, frequency of episodes, duration, localization, intensity, occurrence of nausea, vomiting, factors that worsen or relieve the headache, relation of the headache with a known cause, and other symptoms that could influence the daily life of the professionals.

Statistical Analysis

We analyzed nurse's aides in different days of the week and in different shifts of work so we could enhance the heterogeneity of our population.

All statistical analyzes were performed using the computer program BioEstat 5.0. The level of significance used was 5%.

RESULTS

We interviewed a total of 300 individuals. Most of them between 45 and 54 years old (38%). The prevalence of headache among analyzed nurse's aides was 65%. The group between 45 and 54 years old was more affected by headaches (24%), followed by the group between 35 and 44 years old (20%; Table 1).

About fifty nine percent (59,4%) of nurse's aides with headache episodes had associated symptoms that affected their daily life as: photophobia, phonophobia, osmophobia, nauseas, vomiting, visual alterations, asthenia, weakness sensation, irritability, and dizziness. The group between 45 and 54 years was more affected by these symptoms (Table 2).

Most of the analyzed nurse's aides were women (76%). Considering the total of interviewed professionals, 50% were women reporting headache, 26% were women without headache, 15% were men with headache

Table 1. Age, presence of headache, and associated symptoms in nurse's aides.

Age	N	Headache	Headache + associated symptoms
25-34	72 (24%)	57 (19%)	34 (29%)
35-44	78 (26%)	60 (20%)	30 (26%)
45-54	114 (38%)*	72 (24%)	46 (40%)*
55-64	36 (12%)	6 (2%)	6 (5%)
Total	300 (100%)	195 (65%)*	116 (100%)

*p<0.05 (Qui-squared test =40.80; p<0.0001).

complaint and 9% were men without headache episodes.

According to the ethnic groups, the group that consider themselves pardos are the majority, and that is also the group that reported more episodes of headache. Considering a total of 166 pardos individuals, 117 referred headache episodes (70.4%). The group considering themselves whites was 22% of the total, and 65.1% of them related headache episodes. Both yellow and black groups each had 57% of the interviewed professionals with headache complaint.

The relation between race and headache with associated symptoms showed that 60% of the pardo group related headache associated with other symptoms that affected their daily life. Among white individuals we found this association in 53% of the professionals, in 60% among Asian descendents, and in 66% of afro descendents aides.

Considering the marital status, 73.5% of married professionals reported episodes of headache. Episodes of

Table 2. Age of beginning of headache episodes and age of beginning of episodes associated with other symptoms.

Age of beginning of headache (years)	N	Age of beginning of headache + associated symptoms (years)	N
9-15	60 (30.7%)	9 a 15	15 (12.9%)
16-25	44 (22.6%)	16 a 25	60 (51.7%) **
26-35	61 (31.3%)*	26 a 35	30 (25.9%)
>36	30 (15.4%)	> 36	11 (9.5%)

**p<0.05 (Qui-squared test =13.349; p=0.0039); **p<0.05 (Qui-squared test =51.103; p<0.0001).

headache occurred in 52.5% of single individuals, 47.2% of individuals living in stable union, and in 61.2% of divorced aides. There is no association among marital status and headache (Qui-squared test=2.456; $p=0.4679$).

Analyzing the association of headache with other symptoms that affected the aides's daily life It was found that 73% of the divorced professionals referred this association, followed by 64% of the stable union group, 57% of the married group, and 54% of the single.

Considering all nurse's aides, 31.3% had their first episodes of headache between the ages of 26 to 35 years old. Analyzing the beginning of these episodes associated with other symptoms that affects their daily life, most of them (51.7%) started these episodes by the ages of 16 to 25 years old.

Considering the frequency of episodes among nurse's aides that suffer headaches, most of them (52.3%) referred one episode a month, 15% suffered an episode a few times a year, 13.3% had headaches many times a week, 9.7% suffered from headaches many times a month, and only 1.5% referred daily headaches.

Headache associated with other limiting symptoms was more frequent in individuals relating headache episodes once a month (36.9%). Only 17% of aides suffering headache a few times a year associated these episodes with other limiting symptoms. A group of 6 individuals (3%) suffering from headache many times a week associates these episodes with other symptoms. There was also a small group of 3 people (1.5%) relating many episodes of headache a month with limiting symptoms.

Considering the length of the headache episodes, there was a significant group of 81 aides suffering episodes of headaches lasting 30 minutes. Another group of 37 participants reported episodes lasting 1 hour, followed by 16 professionals reporting headaches for 2 hours, and 14 other interviewed aides with episodes of headache lasting more than 4 hours. Events of headache lasting a few minutes occurred in a small proportion of participants: 8 of them reported episodes of 15 minutes of duration, and 6 aides with headaches of about 15 minutes. Long lasting episodes of headache occurred in 4 individuals reporting headache for 12 hours, 5 professional with headache lasting 24 hours, and 3 other aides with headache lasting for 2 to 3 days.

The group in which the headache lasted 30 minutes was related to the biggest occurrence of associated symptoms that impaired their daily life. In this group, 71.6% of nurse's aides that suffer headaches reported: photophobia, phonophobia, osmophobia, nauseas, vomiting, visual alterations, asthenia, weakness sensation, irritability, or dizziness.

The most frequent localization of the headache was bilateral (41.5%) followed by unilateral (15.8%; Table 3). Most of the analyzed aides related the characteristic of headache as pulsatile (54%), followed by a sensation of pressure (34%), stab (27%), and sting pain (11%; Table 4).

Headache of strong intensity was the most frequent intensity reported by the headache-suffering population (55%). This is also the group that most related their headaches with associated disabling symptoms. Moderate intensity headache occurred in 25% of professionals, followed by a group reposting headache of very strong intensity (13%), and a group of mild intensity headache (7%).

We also analyzed associated symptoms that would disturb the aide's daily activities. The five most prevalent associated symptoms were: phonofobia (75%), nauseas (50%), photophobia (42.2%), visual alterations (12%), and vomiting (24.1%; Table 5).

Table 3. Headache localization and its association with other symptoms.

Localization	N	%	Association with other symptoms	%
Bilateral	81	41.5	57	49.1
Unilateral	31	15.8	11	9.4
Frontal	26	13.3	29	25
Supra-orbital	23	11.7	7	6
Orbital	17	8.7	5	4.3
Occipital	9	4.6	4	3.4
Frontal + occipital	4	2	1	0.8
Orbital + supra-orbital	2	1	1	0.8
Generalized	2	1	1	0.8
Total	195	100	116	100

Table 4. Characteristic of the headache among nurse's aides.

Characteristic	N	%	Association with other symptoms	%
Pulsatile	106	54	67	57.7
Pressure	34	17	23	19.8
Stab	27	14	12	10.3
Sting	11	6	9	7.7
Pulsatile + Stab + Sting	17	9	5	4.3
Total	195	100	116	100

DISCUSSION

Our study analyzed headache as a symptom and its relations with other symptoms that cause detriment to the daily activities of nurse's aides working in emergency hospitals. We have not studied the etiology of the headache. Even though, it's known that migraine and tension-type headache are the most prevalent causes of headache among the general population, mainly in women^{4,21,22}.

The prevalence of headache among nurse's aides in our study was 65%. Another study conducted in Brazil showed a headache prevalence of 78.9% in a high school student's population²³. In 2005, a studied about headache on healthcare professionals in a hospital in Santa Catarina, Brazil, showing a headache prevalence of 74.1%. In the latter study, nurse's aides composed most part of the analyzed population. Another analysis demonstrated a headache prevalence of 98.1% among nursing professionals in a hospital in Rio Grande do Sul, Brazil¹¹.

Findings analyzing 987 healthcare professional in a hospital showed that 38.5% of them related headache episodes, their average age was 31.1 years old, with a prevalence of female professionals. In this same analysis, 150 individuals were nurse's aides, and most of them (62%) suffered headache episodes²⁴.

We found an age variance in our population ranging from 25 to 64 years old. There was a prevalence of nurse's aides in the group between 45 to 54 years old (38%), the average age was 49.5 years old, with a prevalence of female nurse's aides (76%). We also found that 65.7% of analyzed women had headache episodes, and this amount represents 62.5% of men. It is well known

in the specialized literature the highest prevalence of headache in women, and our analyzes is in accordance with that^{4,21,22,24}.

Analyzing the prevalence of headache by age group in a transversal observational study as we are presenting here has its limitations once we do not have a birth cohort of the analyzed individuals. So, the prevalence of headache on a given age group may reflect the exposition of that generation to some risk factors, and not necessarily a strict relation of neither the prevalence of headache on that age group nor the natural history of the disease itself.

Based on these analyzes it can be said that headache among nursing professionals, in special nurse's aides, varies from study to study, but always has a considerable prevalence.

In our study most nurse's aides considered themselves of *pardo* ethnic group. Most of them were married (58%), and this same married group had a higher prevalence of headache (73.5%).

Another Brazilian study analyzing healthcare professionals in a hospital showed that 49.7% of headache suffering professionals were married, and 46.3% of this population were nurse's aides¹¹. The prevalence of headache in Salvador, Brazil, stating that married individuals suffered more headache than single²⁵.

We also noted that in 31.3% of our population

Table 5. Symptoms associated with headache among nurse's aides.

Symptom	N	%
Phonophobia	87*	75*
Nauseas	58	50
Photophobia	49	42.2
Visual alterations	14	12
Vomiting	28	24.1
Weakness sensation	25	21.5
Osmophobia	19	16.3
Irritability	8	6.8
Dizziness	3	2.5
Asthenia	2	1.7
Redness in the eyes	17	14.6

*p<0.05 (Qui-squared test =245.89; p<0.0001).

headache episodes started in the age between 26 and 35 years old. A study showed that 29% of the group with frequent headache started their episodes by the age of 4 to 10 years old²⁶. A study about headache among high school students showed that most of primary headache suffering individuals started their episodes in the age between 10 to 19 years old¹⁸. These important Brazilian data do not completely match with our findings, even though we analyzed a different and specific population and we did not define the headache etiology of our population, but analyzed it as a symptom affecting their lives.

In the population studied in Rio Grande do Sul, Brazil²⁷, the frequency of headache episodes was found to be once a week in 23% of them, daily in 4%, and rarely in 34%. In our analysis, 34% of the subjects had headache episodes once a month, 1% daily and 15% some times a year (rarely).

As shown by us, in 62% of nurse's aides suffering headache once a month, these episodes are accompanied by symptoms that impairs their daily life. This association declines to 30.1% in subjects with episodes of headache a few times a year.

The duration of the headache episodes in the population analyzed by us lasted mainly 30 minutes (41.5%), its localization was more frequently bilateral (41.5%) followed by the unilateral localization (15.8%). A study showed a predominance of bilateral headache (65%) also followed by the unilateral localization²⁷. In our findings, the association of headache with other disabling symptoms was more common in subjects with bilateral headache (49.1%).

We found that pulsatile headache was the most common pattern of headache in our population (54%). Episodes of strong intensity headache also were the majority (55%). Phonophobia was the most common symptom related to headache episodes (75%), followed by nausea (50%), and photophobia (42.2%).

Studying the socio-economic impact of primary headache on healthcare professionals working in a hospital, Bolan et al in 2005 showed that headache was the main cause of working absence resulting in a huge loss of working hours because of these absences¹¹.

A Brazilian study with bus drivers found that the perception of health, the quality of life, the impact

of diseases and its treatments in the life of individuals are all being more frequently studied on epidemiological studies²⁶. In our study 38.6% of the analyzed nurse's aides reported that their headache episodes had a negative impact in their daily activities. It was common for the bus driver with headache episodes to suffer impairment in their functional capacity, to have a negative perception of their health and vitality, taking to a negative repercussion in their social, emotional and mental states²⁶.

Both migraine and tension-type headache impairs the daily activities of the headache suffering population. But migraine had an even worse impact in their professional activities²³.

Headache has an economic impact associated to it that can be considered either direct and/or indirect. Direct expenses are those related to medical assistance, medicines, hospitalization, and so on. Indirect expenses are those related to absences at work and low productivity caused by the pain¹⁰. The prevalence of headache is so elevated that is possible to say that every human being will have an episode of headache during their lifetime. That's why headache is considered to be a public health problem. In 1991, 93% of men and 99% of women will have some kind of headache during their lives⁸.

Healthcare professionals, in special those working in emergency sectors, are exposed constantly to stressful situations^{17,18}. A study in Brazil, showed that headache was the main physical symptom complained by the nursing team in an emergency hospital¹⁸. Another study in Goiânia, Brazil, observed that headache, as a symptom was the most prevalent complaint among high school nursing students²⁸. We consider these studies to be important because we can extrapolate these findings to how would future nursing professionals working in hospitals feel. A study about nurses during their post-graduation courses found a prevalence of headache among them of 93% in men and 97% in women, 54% of this population was diagnosed with migraine and 40% as having tension-type headache²⁹.

Considering these important studies on headache affecting Brazilians, in special healthcare professionals, and comparing it to our own findings on nurse's aides, although our study being a pilot study, with its limitations of using a questionnaire that still requires a va-

lidation, we can say that headache is a prevalent symptom that impairs nurse's aides quality of life. With that in mind, it is reasonable to suggest that changes on public health politics affecting these professional's working conditions would be made to improve their working conditions and wellbeing as well to diagnose and treat its headache accordingly.

CONCLUSION

The analysis presented in this paper is an observational transversal epidemiological inquiry study. We analyzed headache as a symptom in a specific population. By this mean, we have not done an etiological diagnosis of headache. Our objective was to define the prevalence of headache and characterize it according to the proposed variants in a population of nurse's aides working in emergency care hospitals. We believe that headache is a symptom affecting the life of a significant proportion of these professionals that must be investigated, diagnosed and treated accordingly.

REFERENCES

1. Monzillo PH, Nemoto PH, Costa AR, Sanvito WL. Tratamento agudo da crise de enxaqueca refratária na emergência: Estudo comparativo entre dexametasona e haloperidol. *Arq Neuropsiquiatr* 2004;62:513-8. <http://dx.doi.org/10.1590/S0004-282X2004000300025>
2. Ferri-de-Barros JE, Veiga JCE, Priante AV, Cardoso CA, Alves FL, Ferri-de-Barros M, et al. Transtornos neurológicos mais frequentes: Contribuição para a definição de temas do conteúdo programático do curso de Neurologia para a graduação médica. *Arq Neuropsiquiatr* 2000;58:128-35. <http://dx.doi.org/10.1590/S0004-282X2000000100019>
3. Ferri-de-Barros JE, Nitirini R. Que pacientes atende um neurologista? Alicerce de um currículo em neurologia. *Arq Neuropsiquiatr* 1996;54:637-44.
4. Pahim LS, Menezes AMB, Lima R. Prevalência e fatores associados à enxaqueca na população adulta de Pelotas, RS. *Rev Saúde Pub* 2006;40:692-8. <http://dx.doi.org/10.1590/S0034-89102006000500020>
5. Raffaelli Jr E, Martins OJ. Dor de Cabeça. O que se diz... O que se sabe... 4a ed. São Paulo: Lemos Editorial, 2001, p.25.
6. Feldman AS. Enxaqueca: Alívio para a sofrimento. São Paulo: Siciliano, 1994, 157p.
7. Ho KH, Ong BKA. Community-based study of headache diagnosis and prevalence in Singapore. *Cephalalgia* 2003;23:6-13. <http://dx.doi.org/10.1046/j.0333-1024.2002.00272.x>
8. Rasmussen BK, Jensen R, Schroll M, Olesen J. Epidemiology of headache in a general population: A prevalence study. *J Clin Epidemiol* 1991;44:1147-57. [http://dx.doi.org/10.1016/0895-4356\(91\)90147-2](http://dx.doi.org/10.1016/0895-4356(91)90147-2)
9. Ferri-de-Barros JE, Alencar MJ, Berchielli LF, Castelhan Junior LC. Headache among medical and psychology students. *Arq Neuropsiquiatr* 2011;69:502-8. <http://dx.doi.org/10.1590/S0004-282X2011000400018>
10. Sokolovic E, Riederer F, Szucs T, Agosti R, Sándor PS. Self-reported headache among employees of a Swiss university hospital: Prevalence, disability, current treatment, and economic impact. *J Headache Pain* 2013;14:29. <http://dx.doi.org/10.1186/1129-2377-14-29>
11. Bolan RS, Baldessar MZ, Guizzoni MF, Piazza E, Silveira LS, Godinho TA, et al. Prevalência e impacto socioeconômico das cefaléias em funcionários do Hospital Nossa Senhora da Conceição - Tubarão - SC. *ACM Arq Catarin Med* 2005;34:66-72.
12. Domingues RB, Aquino CCH, Santos JG, Silva ALP, Kuster GW. Prevalência e impacto da cefaléia entre pomeranos do interior do Espírito Santo. *Arq Neuropsiquiatr* 2006;64:954-7. <http://dx.doi.org/10.1590/S0004-282X2006000600013>
13. Landy S. Migraine throughout the life cycle: Treatment through the ages. *Neurology* 2004;62:S2-8. http://dx.doi.org/10.1212/WNL.62.5_suppl.2.S2
14. Edmeads J, Findlay H, Tugwell P, Pryse-Phillips W, Nelson RF, Murray TJ. Impact of migraine and tension-type headache on life-style, consulting behavior, and medication use: A Canadian population survey. *Can J Neurol Sci* 1993;20:131-7.
15. Kobak KA, Katzelnick DJ, Sands G, King M, Greist JJ, Dominski M. Prevalence and burden of illness of migraine in managed care patients. *J Manag Care Pharm* 2005;11:124-36.
16. Bigal ME, Fernandes LC, Moraes FA, Bordini CA, Speciali JG. Prevalência e impacto da migrânea em funcionários do hospital das clínicas da faculdade de medicina de Ribeirão Preto – USP. *Arq Neuropsiquiatr* 2000;58:431-6.
17. Lazarus RS, Folkman S. Stress: Appraisal and coping. New York: Springer, 1984, 456p.
18. Farias SMC, Teixeira OLC, Moreira W, Oliveira MAF, Pereira MO. Caracterização dos sintomas físicos de estresse na equipe de pronto atendimento. *Rev Esc Enferm USP* 2011;45:722-9.
19. Cooper CL, Sloan SJ, Williams S. Occupational stress indicator management guide. Oxford: NFER-NELSON, 1988, 66p.
20. Headache Classification Committee of the International Headache Society: Classification and diagnostic criteria for headache disorders, cranial neuralgias and facial pain. *Cephalalgia* 1988;8(Suppl 8):1-96.
21. Braga PCV, Souza LAF, Evangelista RA, Pereira LV. Ocorrência e prejuízos da cefaléia em estudantes universitárias de enfermagem. *Rev Esc Enferm USP* 2012;46:138-44.
22. Rabello GD. Estudo transversal em uma população hospitalar: Fatores constitucionais e ambientais relacionados à enxaqueca (Tese). São Paulo: Faculdade de Medicina da Universidade de São Paulo, 2000, p.33-51.
23. Kurt S, Kaplan Y. Epidemiological and clinical characteristics of headache in university students. *Clin Neurol Neurosurg* 2008;110:46-50. <http://dx.doi.org/10.1016/j.clineuro.2007.09.001>
24. Matta APC, Moreira-Filho PF. Cefaléia do tipo tensional episódica: Avaliação clínica de 50 pacientes. *Arq Neuropsiquiatr* 2006;64:95-9. <http://dx.doi.org/10.1590/S0004-282X2006000100019>
25. Oliveira DA, Brito JKC, Souza CMS, Cruz CKR, Silva LC, Siqueira GR, et al. Cefaléia do tipo tensional e migrânea em funcionários de uma instituição de ensino superior: Grau de incapacidade. *Headache Med* 2011;2:61-5.
26. Zétola VHF, Novak EM, Luiz A, Branco BOS, Sato BK, Nita CS, et al. Incidência de cefaléia em uma comunidade hospitalar. *Arq Neuropsiquiatr* 1998;56:559-64.
27. Liriana MC. Prevalência da cefaleia e suas consequências na qualidade de vida de motoristas de uma empresa de transporte coletivo urbano (Tese). Rio de Janeiro: Universidade Federal do Rio de Janeiro, 2005, 159p.
28. Bastos SB, Almeida-Filho N, Santana VS. Prevalência de cefaleia como sintoma em um setor urbano de Salvador, Bahia. *Arq Neuropsiquiatr* 1993;51:307-12.
29. Moraes ME, Dutra LM, Fontana RT. A cefaleia e a saúde do trabalhador de enfermagem: Análise de uma realidade. *Enfer Global* 2012;26:126-34.

Annex 1. Questionário sobre cefaleia (Headache Questionnaire).

IDENTIFICAÇÃO

1. Iniciais: _____ 2. Idade: _____ anos
 3. Gênero: ___F. ___M. 4. Naturalidade (Estado): _____
 5. Raça (cor): ___Branca. ___Preta. ___Amarela. ___Pardo. ___Indígena. ___Ignorado.
 6. Estado civil: ___Solteiro. ___Casado. ___Divorciado. ___Viúvo. ___Amigado.
 7. Profissão: _____ 8. Telefone: _____
 9. E-mail: _____ 10. MSN : _____

DOR DE CABEÇA (Leia antes as observações no rodapé)

11. Sofre de dor de cabeça: ___SIM. ___NÃO.
 12. Você atribui a sua dor de cabeça a alguma causa conhecida (desordem orgânica, trauma ou uso de substâncias)?
 ___SIM. Qual: _____
 ___NÃO.
 13. A sua dor de cabeça lhe causa algum grau de prejuízo para realizar suas atividades diárias?
 ___SIM.
 ___NÃO.
 14. Com qual idade começou a sua dor de cabeça? _____ anos
 15. Com qual idade ocorreu o primeiro episódio de dor de cabeça com prejuízo para realizar suas atividades diárias? _____ anos
 16. Quantos episódios de dor de cabeça você já sofreu na vida?
 ___1. ___2. ___3. ___4. ___5. ___6. ___7. ___8. ___9. ___10. ___ +10.
 17. Quantos episódios de dor de cabeça com prejuízo para realizar suas atividades diárias você já sofreu na vida?
 ___1. ___2. ___3. ___4. ___5. ___6. ___7. ___8. ___9. ___10. ___ +10.
 18. Qual a frequência dos seus episódios de dor de cabeça?
 ___Contínua. ___Todo dia. ___Várias vezes por semana. ___Semanal. ___Várias vezes por mês.
 ___Uma ou poucas vezes por mês. ___Algumas vezes por ano.
 19. Qual a frequência dos seus episódios de dor de cabeça com prejuízo para realizar suas atividades diárias?
 ___Contínua. ___Todo dia. ___Várias vezes por semana. ___Semanal. ___Várias vezes por mês.
 ___Uma ou poucas vezes por mês. ___Algumas vezes por ano.
 20. Qual a duração dos seus episódios de dor de cabeça?
 ___< 15 min. ___15 min. ___30 min. ___1 hora.
 ___2 horas. ___3 horas. ___< 4 horas. ___4 horas.
 ___12 horas. ___24 horas. ___2-3 dias.
 21. Qual a duração dos seus episódios de dor de cabeça com prejuízo para suas atividades diárias?
 ___< 15 min. ___15 min. ___30 min. ___1 hora.
 ___2 horas. ___3 horas. ___< 4 horas. ___4 horas.
 ___12 horas. ___24 horas. ___2-3 dias.
 22. Qual a localização da sua dor de cabeça?
 ___Unilateral focal. ___Bilateral focal. ___Orbital. ___Supra-orbital. ___Frontal. ___Occipital.
 ___Frontal + Occipital. ___Orbital + Supra-orbital. ___Generalizada.
 23. Qual é a característica ou tipo da sua dor de cabeça?
 ___Pulsação. ___Aperto/pressão. ___Ardência. ___Pontada. ___Pulsação + Ardente + Pontada
 24. Qual a característica ou tipo de dor está relacionado ao episódio de cefaléia com prejuízo para realizar suas atividades diárias?
 ___Pulsação. ___Aperto/pressão. ___Ardência. ___Pontada. ___Pulsação + Ardente + Pontada
 25. Qual a intensidade da sua dor de cabeça?
 ___Leve. ___Moderada. ___Forte. ___Muito forte.
 26. Qual intensidade da sua dor de cabeça está relacionada ao número de episódios de cefaléia com prejuízo para realizar suas atividades diárias?
 ___Leve. ___Moderada. ___Forte. ___Muito forte.
 27. Marque os sintomas associados à dor de cabeça com prejuízo para realizar suas atividades diárias:
 ___Náuseas. ___Vômitos. ___Fotofobia (aversão à luz). ___Fonofobia (aversão ao barulho). ___Osmofobia (aversão ao cheiro).
 ___Olho vermelho. ___Alterações visuais. ___Irritabilidade. ___Vertigem. ___Astenia. ___Fraqueza motora.

Obs.1: Se a resposta da questão 11 for “Não”, não é necessário prosseguir.

Obs.2: Quando necessário, poderão ser marcadas mais de uma opção em uma questão.