Original Article

Evaluation of Socio-Demographic Characteristics in Primary Headache Patients in Tertiary Care Hospital

Nurul Amin Khan¹, Shaheen Wadud², Torikul Islam³

¹Associate Professor, Department of Neuromedicine, Dhaka National Medical College, ²Assistant Professor, Department of Neuromedicine, Dhaka National Medical College, ³Registrar, Department of Neuromedicine, Dhaka National Medical College.

Abstract

Objectives: To find out socio demographic profile of headache patients who presented in neurology outdoor in Dhaka National Medical College & Hospital.

Methodology: It was a cross sectional observational study among 100 patients presented in Neurology OPD from the period of January 2018 to June 2018 in Dhaka National Medical College Hospital (DNMCH). A preformed questionnaire was used to collection data and was analyzed with STATA 10 software.

Results: Among 100 headache patients most of them were TTH (72%) rest of them were Migraine (28%) and female predominant (76%) age between 34.2±9.8. Most of them are sedentary worker (96%) and from lower middle class family (76%) and according to educational qualification 94% are undergraduate, among them 24% were illiterate and rest of 70% studied up to HSC and only 6% were graduated and above.

Conclusion: Sociodemographic profile has an impact on headache character, so we need to recognize these sociodemographic profiles for proper management of headache patients.

Keywords: Headache, Socio-demographic study

Introduction

Headache is one of the common comorbidities experienced by many populations while headache has been an unaddressed cause of morbidity around the world, it has remained largely unrecognized in the developing world. 1 Most of clinical and epidemiological studies are done in developed countries whereas there are vast socioeconomic and demographic variation between developed and developing countries. Among primary headache types tension type headache is the most prevalent one and after that migraine which hampering daily activities of many of the sufferers. A Canadian study showed lifetime prevalence of migraine was 7.8% in male and 24.9% in females² and one American study found that 38.3% of the population had experienced an episode of tension type headache in the past year.3

In these circumstances, this study was done to find out socioeconomic and demographic characteristics among headache patients which might influence frequency, duration and severity of headache and thus interfering proper management of headache patients.

Materials and methods

In this cross-sectional observational study, total numbers of 100 headache patients were randomly selected clinically from the period of January 2018 to June 2018 at neurology department of Dhaka National Medical College Hospital. The study was approved by institutional ethical committee.

For each patient a routine clinical questionnaire was completed. The questionnaire consisted of socio demographic details and types of headache among the study population. Patients with secondary cause of headache and other types except tension type and migraine and headache due to medication overuse were excluded from the study.

The International classification of headache disorder, version 3 was applied and as many diagnosis as was necessitated by the criteria and as was clinically justified, were assigned to each patient.⁴

Statistical analysis was done using STATA 10 software.

Results

In this Observational study among Headache patients in Neurology Department of DNMCH, total 100 patients were enrolled fulfilling inclusion and exclusion criteria.

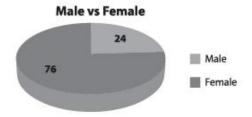


Figure-I: Graphical presentation of distribution of headache patients among Male and Female.

Table -I: Characteristics of participants (n=100)

Age in years	Freq.	Percent.	Cum.
Age	34.2±9.8 (Min 12- Max 50)	9	
Marital status			
Married	92	92%	92.00
Unmarried	8	8%	100.00
Occupation			
Service	6	6.00	6.00
Business	8	8.00	14.00
Student	16	16.00	30.00
Housewife	70	70.00	100.00
Nature of work			
Sedentary	96	96%	96.00
Moderate work	4	4%	100.00
Total	100	100.00	

Figure-II: Graphical presentation of socioeconomic status of study population.

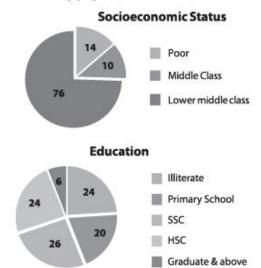


Figure-III: Graphical presentation of distribution of population according to educational qualification among them 24% were illiterate and rest of 70% studied up to HSC and only 6% were graduated and above.

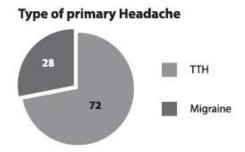


Figure-IV: Graphical presentation showing type of headache among study population (n=100)

Discussion

Socio-demography always playing a major role in precipitating tension/primary headache specially on population of developing countries like Bangladesh. Headache is a major health problem on all continents. Epidemiological study from around the world had suggested that tension type headache (TTH) is the most common cause of primary headache.⁵

In our study we have found female predominance (76%), mean age among population 34.2±9.8 years and most of the patients were married (92%) and maximum were housewife (70%) and leading a sedentary life style (96%) which are supported by Hossain M.A et al.6 in their study they also found mean age 33.8±8.8 years, female predominance (72.7%) and most of the patients were housewife (57.6%). García-Cabo Fernández C et al and Jeyagurunathan A et al7,8 also found similar socio demographic profile in their study on migraine patients but in García-Cabo Fernández C study mean age was higher (45 years) than our study may be due to increased life expectancy and most of the elderly people are actively working and on continuous stress and Jeyagurunathan A et al found mean age 26.4 years in Singapore which is lower than our they explained the reason due to increased stress, unhealthy lifestyle and increase obesity.

In our study we have found most of the patients from lower middle class family (76%), middle class (10%) and poor (14%), Haque B et al.⁹ in their study in DMCH also found maximum population form middle class (58%) and lower class (40.6%). Another study showed that maximum headache prevalence occurs in lower middle class population.¹⁰

In our study we also found 24% of study populations were illiterate and rest of 70% studied up to HSC level and only 6% were graduated and above and maximum of these educated patients are young adults. El-Sherbiny et al.¹¹ and Bahrami P et al.¹² also found almost similar findings.

We also found TTH as the most prevalent type of primary headache (72%) and then migraine (28%) which was also supported by Birru et al.¹³

Limitation of study: As our study was hospital based and with a small sample size the result of our study cannot be extrapolated to general population. Secondary headache profile was not included in this study.

Conclusion

Sociodemographic profile has a significant impact on Headache character, and there is a major variation of these profiles from country to country and among different communities. So by recognizing these sociodemographic profiles and identifying their clinical types in headache patients we can set treatment modalities accordingly.

Acknowledgements

The authors are very much grateful to the entire staff of the Neurology Department of Dhaka National Medical College Hospital for their cooperation and also to the all study subjects for their active participation.

References

- Mateen F, Dua T, Stteiner T, Saxena S. Headache disorders in the developing countries; research over the past decade. Cephalagia. 2008.
- O'Brien B, Goeree R, Streiner D. Prevalence of migraine headache in Canada: a population-based survey. Int J Epidemiol. 1994;23:1020-6.
- Schwartz BS, Stewart WF, Simon D, Lipton RB. Epidemiology of tension-type headache. JAMA. 1998;279:381-3.
- The International Classification of Headache Disorders: 2nd edition Cephalagia 2004; 24 (Suppl 1): 9-160.
- Stovner LJ, Hagen K, Jensen R, et al. The global burden of headache: a documentation of headache prevalence and disability worldwide. Cephalalgia 2007;27:193–210
- Hossain, M. A., Hakim, M., Hasan, M., Rahman, M. A., Rashid, M., Sagir, G., & Hussain, M. E. (2018). Socio-demographic and Comorbidity Profiles of Migraine Patients in a Headache Clinic of a Tertiary

- J. Dhaka National Med. Coll. Hos. 2019; 25 (01): 13-15 Care Hospital in Dhaka City. Journal of National Institute of Neurosciences Bangladesh, 3(1), 48-51. https://doi.org/10.3329/jninb.v3i1.36272
- García-Cabo Fernández C, Sánchez-Lozano P, Pérez-Álvarez A, Martínez-Ramos JM, Martínez -Rodríguez L, Pascual J. Sociodemographic characteristics of a cohort of patients with chronic migraine from a health district in Asturias. Neurologia. 2016 Apr;31(3):157-60. English, Spanish. doi: 10.1016/j.nrl.2015.06.009. Epub 2015 Aug 21. PMID: 26304652.
- Jeyagurunathan A, Abdin E, Vaingankar JA, Chua BY, Shafie S, Chang SHS, James L, Tan KB, Basu S, Chong SA, Subramaniam M. Prevalence and comorbidity of migraine headache: results from the Singapore Mental Health Study 2016. Soc Psychiatry Psychiatr Epidemiol. 2020 Jan;55(1):33-43. doi: 10.1007/ s00127-019-01755-1. Epub 2019 Aug 27. PMID: 31456029.
- Haque B, Rahman KM, Hoque A, Hasan AT, Chowdhury RN, Khan SU, Alam MB, Habib M, Mohammad QD. Precipitating and relieving factors of migraine versus tension type headache. BMC Neurol. 2012 Aug 25;12:82. doi: 10.1186/1471 -2377-12-82. PMID: 22920541; PMCID: PMC3503560.
- 10. GBD 2016 Headache Collaborators. Global, regional, and national burden of migraine and tension-type headache, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet Neurol. 2018;17(11):954-976. doi:10.1016/S1474-4422(18)30322-3
- El-Sherbiny, N.A., Masoud, M., Shalaby, N.M. et al. Prevalence of primary headache disorders in Fayoum Governorate, Egypt. J Headache Pain 16, 85 (2015). https://doi.org/10.1186/s10194-015-0569-6
- Bahrami P, Zebardast H, Zibaei M, Mohammadzadeh M, Zabandan N. Prevalence and characteristics of headache in Khoramabad, Iran. Pain Physician. 2012 Jul-Aug;15(4):327-32. PMID: 22828686.
- Birru, E.M., Abay, Z., Abdelwuhab, M. et al. Management of headache and associated factors among undergraduate medicine and health science students of University of Gondar, North West Ethiopia. J Headache Pain 17, 56 (2016). https://doi.org/10.1186/s10194-016-0647-