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Original Research Article

Prevalence of psychiatric co-morbidity in patients presenting with chronic daily headache: a hospital based cross sectional study

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ABSTRACT

Background: Headache is a common neurological disorder and most disabling conditions in the worldwide. Psychiatric disorders can occur with at least two to three-fold greater frequencies among the patients presenting with headache than among general population. The presence of psychiatric co-morbidity further complicates headache management and portends a poorer prognosis. Therefore, the present study of prevalence of psychiatric co-morbidity in patients presenting with headache and to know the nature and extent of psychiatric co-morbidity associated with headache among the patients was undertaken.
Methods: Present sample consists of 100 patients who presented with the complaints of headache to the department of Psychiatry and Medicine from November 2012 to June 2014 was included in the study. MINI 5.0.0 was applied to elicit the presence of any Axis I and Axis II disorders respectively.
Results: In this study 74% of the patients presenting with headache had co-morbid psychiatric disorders. Out of 74% of the psychiatric illnesses; 28% had affective spectrum disorders, 16% had anxiety disorders 16% had psychotic disorders, 12% had other neurotic stress related disorders, and 2% had personality disorder among the patients presenting with headache.
Conclusions: Patients presenting with headache have high levels of co-morbid psychiatric disorders and the presence of headache in these patients was associated with increased severity of the co-morbid psychiatric conditions. In view of the present findings, the management of patients presenting with headache should include the detail assessment of coexisting psychopathology and treatment of both coexisting conditions.

Keywords: Chronic daily headache, Cluster-type headache, Migraine, Psychiatric co-morbidity, Tension-type headache

INTRODUCTION

Headache is a common neurological disorder that ranks among the top 10 most disabling conditions for both men and women worldwide and at least 40 percent of individuals in the world are suffering from severe disabling headache.[1,2] Every year, about 80 percent of the population is estimated to suffer from headache at least once, and 10 to 20 percent of the population goes to physicians with headache as their primary complaint. Headaches are also a major cause of absenteeism from work and of avoidance in social and personal activities. Severe headaches also have major economic impact due to medical expenses.[2]

Headaches are commonly associated with psychiatric disorders where psychiatrists are often consulted for the evaluation and treatment of people suffering from it. Most headaches are not associated with significant organic disease; many people are susceptible to headaches at times of emotional stress. The relationship between headache and psychiatric disorders is complex.

Numerous studies have been done to look whether psychological problem is a cause or the consequences of headache which are still remains controversial.[3] Psychiatric disorders occur with at least two to three-fold greater frequencies among the patients presenting with headache than among general population, and the prevalence increases in clinical population especially with chronic daily headache. The presence of psychiatric co-morbidity further complicates headache management and portends a poorer prognosis for headache treatment. The challenge for future studies is to employ research methods and designs that accurately identify and classifies the subsets of headache with psychiatric disorders, evaluate their impact on headache symptoms and treatment, and identify optimal behavioral and pharmacological treatment strategies.[4,5]

METHODS

This hospital based - cross sectional study included patients presenting with headache who visited to Psychiatry outpatient department of a tertiary care hospital and research centre, Hoskote, Bangalore, Karnataka, India. Hundred patients belongs to the age group of 18-65 years of either sex was included.

Those who are diagnosed by physician/psychiatrist to have primary headache for ex. migraine with or without aura, tension-type headache (episodic/chronic) and mixed headache and who are ready to give the consent were included in the study. Patients who are suffering from serious or debilitating medical illness and patients with secondary headache due to any other underlying medical condition such as Head and neck trauma, Cranial or cervical vascular disorder, Intracranial disorders were excluded. The study was approved by the institutional ethical clearance and informed consent was obtained from all the patients who were included in the study.

Semi structured proforma for recording socio-demographic variables, medical and psychiatric history was used. Patients with headache were categorized using ICHD II (International classification of headache (Hamilton Anxiety Rating Scale) and HAM-D (Hamilton Depression Rating Scale) were applied to patients with co morbid anxiety and depression to assess the severity. Semi structured proforma for recording socio-demographic variables, medical and psychiatric history, ICD 10 (International Classification of Mental and Behavioral disorders), ICHD -II (International Classification of Headache Disorders, 2nd edition) and HAM-D (Hamilton Depression Rating Scale) were used as tools.

The HAM-D is applied by an interviewer who asks a series of questions related to symptoms of Depression. The interviewer then rates the individual on a five point scale for each of 21 items. The total scores ranges from 0 to 52, lower scores are better. These results are intended as a guide to health and are presented for educational purpose only. They are not intended for clinical diagnosis. MINI (Mini International Neuropsychiatric Interview) was designed as a brief structured interview for the major Axis-I and axis-II psychiatric disorder in DSM-V and ICD-10. Validation and reliability studies have been done comparing the M.I.N.I. to the SCID-P for DSM-III-R and the CIDI (a structured interview developed by the World Health Organization for lay interviewers for ICD-10).

Statistical analysis

The data obtained was represented as percentages and numerical data. The data collected is summarized in the form of tables and respective histograms as depicted below. The outcome of the study was analyzed using SPSS software-19 version.

RESULTS

The data collected is summarized in the form of tables and respective histograms as depicted below. The results of these studies show that the M.I.N.I. has acceptably high validation and reliability scores, but can be administered in a much shorter period of time (18.7±11.6 minutes) than the above referenced instruments. It can be used by clinicians, after a brief training session.

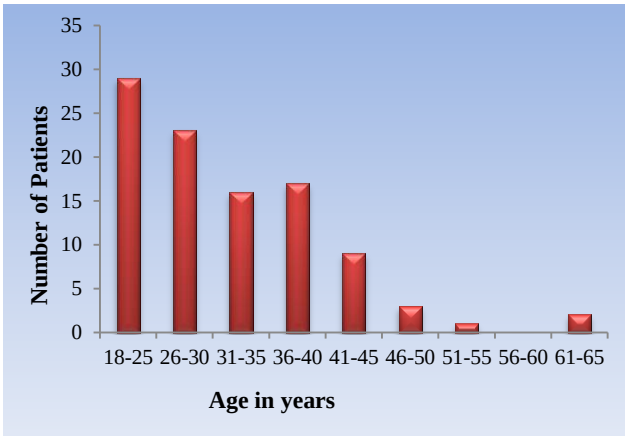

Figure 1: Distribution among the study population based on age group.

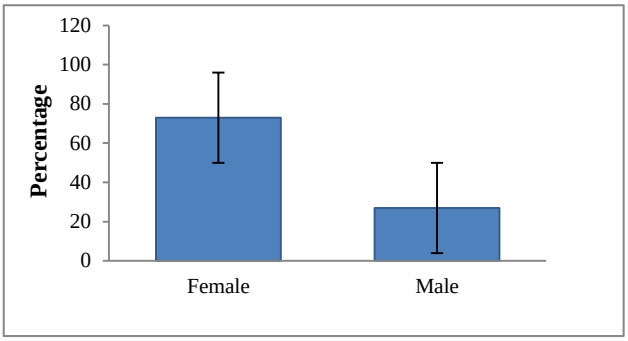

Figure 2: Gender-wise distribution of patients among the study population with headache.

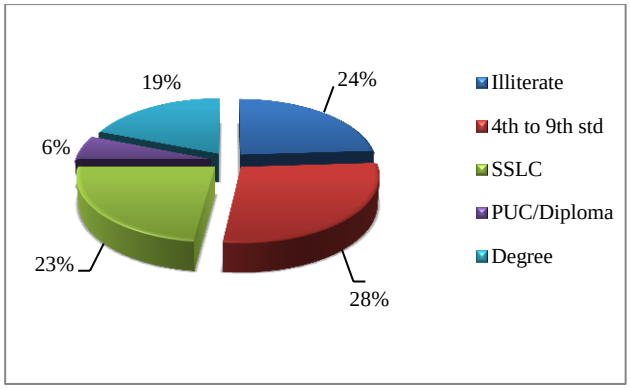

Figure 3: Distribution among the patients with headache based on educational status.

Table 1: Distribution of patients among the study population with type of headache.

Type of Headache	N
Tension-type headache	89
Migraine	10
Cluster headache	1
Total	100

In the study population, 78% of the patients presenting with headache were belonged to the age group of 20-40 years and the mean age was 32.01 years; where females were found to be predominates (73%) over men (27%) which was significant statistically (P <0.05). In the present study, 78% of the patients presenting with headache were young adults in the age groups between 18 and 40 years with the mean age of 32.01 years (Figure 1). Female predominance was seen among patients with headache accounting to 73% as compared to males with 27% (Figure 2). 76% of the study population with headache was literates out of whom 51% were educated up to high school level and19% were educated up to degree. Illiterates were found to be 24% in our study population (Figure 3).

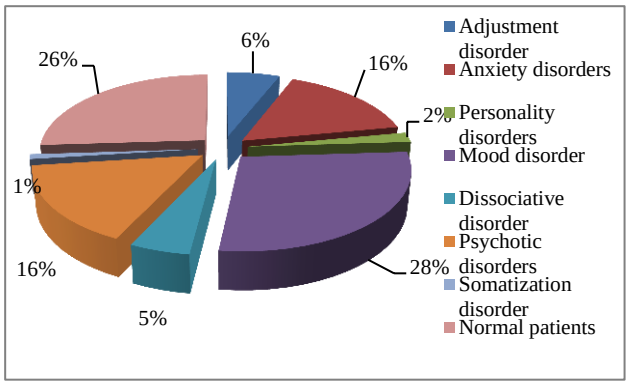

Figure 4: Distribution of psychiatric co-morbidity among the patients with headache.

Tension–type of headache accounts to 89% of the sample studied and is the most common type of headache (Table 1). 74% of the patients presenting with headache had co-morbid psychiatric disorders in our study population. Out of 74% of the psychiatric illnesses ; 28% were suffering from affective spectrum disorders, 16% were suffering from anxiety disorders, 16% had psychotic disorders, 12% had other neurotic stress related disorders (6% had adjustment disorder, 5% had dissociative disorders, and 1% had somatization disorder) and 2% had personality disorder (Figure 4).

Table 2: Patients among the study population based on sub-classification of psychiatric disorders.

Major depressive disorder 9%	Schizophrenia (9%)	Panic disorder 2%
Bipolar affective disorder (2%)	Delusional disorder (4%)	Generalized anxiety disorder 2%
Dysthymia (5%)	Other psychosis 3%	Posttraumatic stress disorder-1%
RDD (7%)		Mixed Anxiety and Depressive disorder 10%
Double Depression (5%)		OCD (1%)

Out of 28% of the affective spectrum disorders, 2% had bipolar affective disorder, 9% had major depressive disorder, 5% had dysthymia, 7% had recurrent depressive disorder and 5% had double depression in present study population presenting with headache. Out of 16% of the psychotic disorders, 9% had schizophrenia, 4% had psychosis NOS, and3% had delusional disorders in our study population presenting with headache. Out of 16% of the anxiety disorders, 10% had mixed and depressive disorder, 2% had GAD, 2% had panic disorders, 1% had PTSD, and 1% had OCD in our study population presenting with headache (Table 2). Out of 78% of the stress factors among the patients with headache, marital issues are the most common attributing to 25% followed by financial loss which was found to be 12% in our study population (Figure 5).

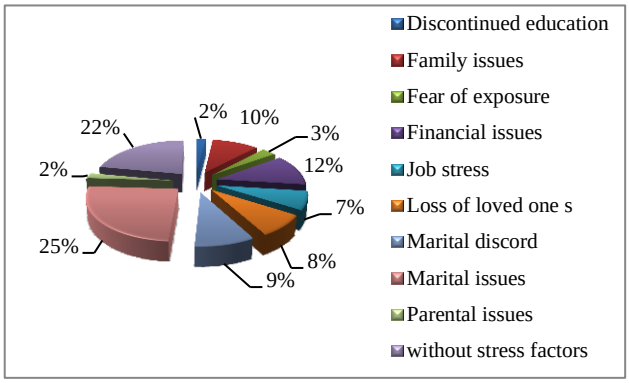

Figure 5: Distribution of common stress factors among patients with headache.

DISCUSSION

In the present study, 78% of the patients presenting with headache were belonged to the age group of 20-40 years and the mean age was 32.01 years; where females were found to be predominates (73%) over men (27%). This high prevalence of headache among this age group in our study can be due to the exposure of stress factors like discontinued education, their activities at university and heavy workload, marital discord, and job stress / loss of job. The headache that affects disproportionately more in women than in men in our study can be due to gender based violence, socioeconomic disadvantage, income inequality, low or subordinate social status, unremitting responsibility for the care of others.

Previous studies by Lipton RB et al had found the high prevalence of headache among the young adults which is almost similar to our study findings.[6] Indian study by Jain AP et al, 50 has also similar results (70.4% were in the age group of 21 to 40 with a mean age at presentation was 31.2 years) to present study findings.

Another study by Mansur H et al, which is not consistent to present study findings as their study have found that 37% of the patients presenting with headache were below the age of 18 years, 40.27% were within the range of 18-49 years and only 3.32% were belong to the age group of more than 50 years.[7] This difference in their study was due to the inclusion of all the age groups ranged from 12 years to more than 65 years, and differences in the methodology.

In present study sample 76% of the patients presenting with headache was literate and 24% were illiterates. Literates were found to be more prevalent in our study population which can be due to stress in the academic activities, more intellectual activities in university colleges. Previous study by Tan HJ et al, has found that 97.8% of the patients presenting with headache were literate and 2% were illiterate which were similar to our study findings.[8] In present study population tension-type of headache was found to be the commonest type of headache with a prevalence of 89% followed by migraine headache (10%) and least were cluster headache (1%). Previous studies which had found the results similar to our study are: Stovner et al has found that tension-type headache were more (46%) common than migraine (11%) and least was cluster headache (0.2%-0.3%); Kandil MR et al, TTH (64%) was found to be high prevalence followed by migraine (31%) and least were cluster type of headache (4%).[9,10] This high prevalence of tension-type headache is shown to have a major impact on patients' job performance and quality of life, leading to an economic burden on family members.

The overall prevalence of psychiatric co-morbidity among the patients presenting with headache were 74%, which was assessed by using MINI in our study. Moreover stress (78%) was the most common triggering factors for headache in our study which are; marital discord, loss of loved ones, financial issues, more number of females, and job stress. Many other studies are in line with our study findings. Bera CS et al reported that, the psychiatric co-morbidity in subjects of migraine and TTH was 62.5% and 60% respectively with no differences between both the groups.[11] However, co-morbidities were much higher as compared to healthy controls (22.5%) in their study; Singh AK et al found that psychiatric co-morbidity was seen in 53.3% of the patients presenting with chronic daily headache.[12]

The most common psychiatric co-morbidity among the patients presenting with headache in our study was Mood disorders which were found to be 28%. Out of which 26% had major depressive disorders (9%), dysthymia (5%), RDD (7%), and double depression (5%)] and 2% had bipolar affective disorder. Verri AP et al also reported that, 25.8% had depression, 17% had dysthymia among the patients presenting with headache; Fillipis D et al has found that 28% had moderate to severe depression in patients with headache.[13,14] Merikangas et al did not find any significant difference in the frequency of major depression among the patients with TTH as compared to headaches free control.[15]

CONCLUSION

Depressive disorders were the most predominant co-morbid psychiatric disorders among the patients presenting with headache followed by anxiety spectrum disorders. Young adults and female gender were most likely to suffer from co-morbid psychiatric disorders among the patients presenting with headache. Tension-type of headache was the found most common type of headache followed by migraine and least were cluster type headache. There is a high incidence of co-morbid psychiatric conditions associated with Headache.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Hussain AAM, Mohit MA, Ahad MA, Alim MA. A Study on Psychiatric Co-morbidity among the Patients with Migraine. TAJ. 2008;21(2):108-11.
2. Amanda K, Kathleen M. Physical and Mental Comorbidity of Headache in a Nationally Representative Sample of U.S. Adults. Psychosom Med. 2008;70(7):773-80.
3. Zuraida NZ, Parameswaran R. Prevalence of Depression among Patients with Headache in Kuala Lumpur, Malaysia. Malaysian J Psych. 2007;16(2).
4. Lake AE, Rains JC, Penzien DB, Lipchik GL. Headache and psychiatric comorbidity: Historical context, clinical implications and research relevance. Headache. 2005;45:493-506.

5. Antonaci F, Nappi G, Galli F, Manzoni GC, Calabresi P, Costa A. Migraine and psychiatric comorbidity: a review of clinical Findings. J Headache Pain. 2011;12:115-25.
6. Lipton RB, Mansur H. Headache, study of 3350 cases. Bangladesh J Neuroscience. 2001;17(1):1-5.
7. Mansur, Jain AP, Chauhan B, Bhat AD. Sociodemographic and Clinical Profile of Headache –A Rural hospital-based study. IACM. 2007;8(1):26-8.
8. Tan HJ, Suganthi C, Dhachayani S, Rizal AM, Raymond AA. The coexistence of anxiety and depressive personality traits in migraine. Singapore Med J. 2007;48(4):307.
9. Stovner LJ, Andree C. Prevalence of headache in Europe: a review for the Eurolight project. J Headache Pain. 2010;11(4):289-99.
10. Kandil MR, Hamed SA, Fadel KA, Youssef AH, Mohammed AB, Hamed et al. Epidemiology of tension-type headache (TTH) in Assuit Governorate, Egypt.Journal of neurology and neuroscience. 2014;5(1):2.
11. Bera SC, Sudhir K, Sood KM, Goyal V. A comparative study of psychiatriccomorbidity, quality of life and disability in patients with migraine and tensiontype headache. Neurology India. 2014;(62)5.
12. Singh AK, Shukla R, Trivedi JK, Singh D. Association of psychiatric co-morbidity and efficacy of treatment in chronic daily headache in Indian population. J Neurosci Rural Pract. 2013;4:132-9.
13. Verri AP, Cecchini PA, Galli C, Granella F, Sandrini G, Nappi G. Psychiatric comorbidity in chronic daily headache. Cephalalgia. 1998;18(21):45-9.
14. Filippis D, Teixeira AL, Costa EAC, Silva Jr AAD, Moreira dos Santos A, Go´mez RS, Kummer A, et al. Psychiatric comorbidities of chronic migraine in community and tertiary care clinic samples. J Headache Pain. 2012;13:551-5.
15. Merikangas M, Mateen FJ, Dua1 T, Steiner T, Saxena S. Headache disorders in developing countries: research over thepast decade. Cephalalgia. Inter J Headache. 2008.

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