



Study of Socio-Demographic Profile and Psychiatric Morbidity among Chronic Headache Patients Visiting Tertiary Care Hospital - A Hospital Based Cross Sectional Study

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Abstract

Background: Headache is one of the most common human afflictions, which leads to seek medical advice. Chronic headaches markedly reduce the quality of life of the sufferers and affect all aspects of their lives. The present study aims to compare personality profile; sense of subjective well being is likely to throw light on the planning of effective intervention strategies to enable these individuals to lead a better life. To this purpose we have evaluated the psychosocial estimates of chronic headache and the impact of chronic headache on employment, social performance, and comfort.

Methods: The cross-sectional study was conducted in 54 patients visiting Princess Esra Hospital, a tertiary care hospital for the period of 3 months. All the patients were screened using a questionnaire for symptoms of chronic headache. Psychosocial analysis done by using M.I.N.I scale. It is a short structured diagnostic interview of choice for psychiatric evaluation and outcome tracking in clinical psychopharmacology trials and epidemiological studies statistical analysis done between the groups by performing chi-square test. The p value less than 0.05 was measured statistically important.

Results: Majority of the patient population belongs to low socio-economic status 39 (72.2%) ; 77.8% (42) of the individuals were married; 57.4% (31) were diagnosed with major depressive disorder and 9.3% (4) with depression disorders and Melancholia, 27.8% (15), dysthymia and 61.1% (33) with suicidal ideas. 22.3% (12) were with panic disorder, 7.4% (4) with OCD, and 70.4% (38) with GAD.

Conclusion: Majority of headache problems occurred in the age group between 20 to 40, mostly seen in married women female population. Headache sufferers are mostly with primary standard education with low Socio Economic Status. Depression and Generalized Anxiety Disorder (GAD) are by far the predominant psychiatric morbidity in this population. Psychological evaluation should focus on personality characteristics, lifestyle, and life-situation factors that account for individual differences in headache susceptibilities.

Keywords: Chronic Headache, Psychosocial factors, Depression, Migraine

INTRODUCTION

Headache is one of the most common medical symptom and as well disorder, patients seek medical advice. Chronic headaches markedly reduce the quality of life of the sufferers and affect all aspects of their lives. A delay in effective headache management may contribute to chronicity of headaches and co morbid affective disorders.⁽¹⁾ Nearly ten percent of all people report that headache leads to impairment in their daily life.⁽²⁾ The International Classification of Headache Disorders identifies 24 types of chronic headache. A variety of are uncommon conditions that are commonly of interest to researchers and headache specialists.⁽³⁾ Chronic daily headache (CDH) is a label for a heterogeneous group of headache disorders that can be a management face up to many physicians. These patients with chronic headaches account for the majority referrals to headache speciality clinics.⁽⁴⁾ Primary episodic headaches, such as migraine, tension headaches were classified as chronic when the attacks occur more than 3 days over a period of at least three months. In terms of pain, however, “chronic” denotes persistent pain over a period of at least three months. This latter definition is retained in the headache field for secondary headache, in which underlying pathology or systemic disease is the cause of the headache.⁽⁵⁾ Various studies have reported in pediatric population a close association of psychological dysfunctions with pain problems and headache, in particular internalizing symptoms like anxiety, depression but also adverse environmental and social, in particular familial, factors not only in

clinical but also population samples.⁽⁶⁾ Studies in the United States⁽⁷⁾ and Europe indicate that 4 to 5 percent of the general population have primary chronic headaches. The leading cause is chronic tension-type headache (53.7%), followed by chronic migraine (31.7 %).⁽⁸⁾ Over the life span, 18% women and 6% of men will suffer from headache.⁽⁹⁾ Pain related conditions such as headache could inflict an enormous burden on the individual, which ultimately translates into direct and indirect costs to society. The more overwhelming the emotional response is likely to be the more common are denial, depression, hostility, anger and dependency.⁽¹⁰⁾ There may be decrease in cognitive abilities like attention, concentration, immediate and late memory. Thus, chronic, severe headache affects general functioning and well being both as a direct and indirect consequence of the attacks. More severe grades of headache are associated with higher levels of unemployment and increased risk of co-morbid conditions such as depression. However, long term consequences of these secondary effects may depend on the extent of social and medical support available to the individual. Every headache is a multi-factorial symptom occurring in a person with a unique personality. Basic personality structure has become an important element in the psychological management of any patient who is physically ill, even when the patient is a psychologically normal and well functioning person.⁽¹¹⁾ Identifying specific personality factors can be useful in the evaluation and management of these patients. The primary cause of migraine is anger, especially when it is tacit and suppressed.

⁽¹²⁾ Migraine patients as obsessive, perfectionist, rigid, ambitious, competitive, unable to delegate responsibility and chronically resentful. Physicians have long been aware that emotionally stressful factors could trigger headache.⁽¹³⁾ Stress is an ever present, universal part of life. Response to stress involves every set of organs and tissues in the body, and thoughts and feelings are clearly intertwined with physiologic processes. Majority of problems were in the areas of energy, emotional reactions, sleep, social isolation and pain in assessing quality of life in chronic headache patients. The various types of headache differ from each other in terms of their quality, intensity, duration etc and they usually develop a chronic course over time.⁽¹⁴⁾

They have a profound physical and psychological impact on the individual, and ultimately contribute in direct and indirect ways to societal costs. It has obvious psychological correlates and significantly influences a person's sense of well being as reflected in the quality of life experienced by him. Moreover, there are concomitant personality and coping variables underlying headache that may act as predisposing or precipitating factors. Assessment of the personality profile of headache sufferers along with their quality of life. It is also, gaining insight into specific personality correlates of headache sufferers may enable mental health professionals to identify specific triggers and vulnerability indices to headache.⁽¹⁵⁾ To this purpose, we have studied the psychosocial factors impact in chronic headache patients visiting tertiary care hospital.

METHODS

It was a cross-sectional study conducted in Princess Esra Hospital, a tertiary care hospital attached to Owaisi Hospital and Research Center, Hyderabad between June 2007 and September 2007 for the period of 3 months. Institutional ethics committee approved the study protocol. Informed consent was taken from them prior to including them in the study. A sample of 54 patients was screened using a questionnaire for symptoms of chronic headache. Both male and female patients above the age of 20yrs with daily symptoms of chronic headache, more than 15 days per month for more than 3months as per international classification of headache were included.⁽³⁾ Patients were excluded if they were having organic diseases or not willing to participate in the study. Clinical data about the socio-demographic details, psychiatric history and a specific history focused on headache, its nature and course was collected. Additionally, blood pressure, diabetes, pallor, sinus tenderness, refractory error, and neck movements were recorded from all the participants. Each participant was assessed by Mini International Neuropsychiatric Interview (MINI), Version 6, a brief structured diagnostic interview for DSM-IV Axis I psychiatric disorders to rule out psychiatric morbidity.⁽¹⁶⁾ The M.I.N.I is a short, structured diagnostic interview of choice for psychiatric evaluation and outcome tracking in clinical psychopharmacology trials and epidemiological studies. The M.I.N.I. contains interviews for the following disorders such as agoraphobia, alcoholic Dependence /abuse, Anorexia Nervosa,

Antisocial Personality Disorder, Bulimia Nervosa Dysthymia, Generalized Anxiety Disorder, (Hypo) Manic Episode / Bipolar Disorder, Major Depressive Episode, Panic Disorder, Obsessive Compulsive Disorder, Psychotic Disorders, Posttraumatic Stress Disorder, Social Phobia, Substance Dependence and Suicidality.

STATISTICAL ANALYSIS

The data was entered in excel spreadsheet 2007 and analysis was performed using SPSS version-16 statistical software. Continuous data was presented as mean, median and SD, where as categorical data as numbers and percentages. Between groups analysis was performed by using

chi-square test. 'p' value less than 0.05 was measured statistically important.

RESULTS

Majority of the patient population belongs to low socio-economic status 39 (72.2%) ; 77.8% (42) of the individuals were married; 57.4% (31) were diagnosed with major depressive disorder and 9.3% (4) with depressive disorder and Melancholia, 27.8% (15) with dysthymia and 61.1% (33) with suicidal ideas. 22.3% (n=12) with panic disorder, 7.4% (4) with OCD, and 70.4% (38) with GAD.

DEMOGRAPHIC	SUBTYPES	FREQUENCY	PERCENT
AGE	YOUNG	39	72.2
	MIDDLE	15	27.8
SEX	MALE	15	27.8
	FEMALE	39	72.2
RELIGION	MUSLIM	30	55.6
	HINDU	18	33.3
	CHRISTIAN	6	11.1
EDUCATION	ILLITERATE	15	27.8
	PRIMARY	21	38.9
	SSC	9	16.7
	DEGREE	9	16.7
OCCUPATION	UNEMPLOYED	24	44.4
	EMPLOYED	28	51.9
	RETIRED	2	3.7
SES	LOW	39	72.2

	MIDDLE	12	22.2
	HIGH	3	5.6
MARITAL STATUS	UNMARRIED	9	16.7
	MARRIED	42	77.8
	WIDOWED	3	5.6

Table 2 - Clinical Data			
PSYCHIATRIC DISORDERS		n	n %
MD EPISODE	NIL	18	33.3%
	MDD	31	57.4%
	MDD+MELANCHOLIA	5	9.3%
DYSTHYMIA	NIL	39	72.2%
	YES	15	27.8%
SUICIDALITY	NIL	21	38.9%
	LOW	29	53.7%
	MODERATE	4	7.4%
	HIGH	0	.0%
PANIC DISORDER	NIL	42	77.8%
	P_CURRENT	7	13.0%
	P+AGAROPHOBIA	5	9.3%
OCD	NIL	50	92.6%
	OCD_CURRENT	4	7.4%
ALCOHOL USE DISORDER	NIL	51	94.4%
	ADAA_CURRENT	3	5.6%
GAD	NIL	16	29.6%
	GEN.ANX.CURRENT	38	70.4%

DISCUSSION

This study compared the relation between psychiatric morbidity and level of chronic headache. In general, our results point out, beyond depression symptoms, there were a lot of other psychopathological conditions that may be interfering and causing chronic headache.

Maizels et al correctly emphasizes the importance of screening for depression in all patients with CDH. In some patients, recognition of the rebound mechanism itself can be therapeutic⁽¹⁷⁾ It was understood that depression and migraine headache share the similar etiologies, rather than the

depression resulting from the demoralizing effect of repeated migraine attacks⁽¹⁸⁾ Some features of co-morbid depression show improvement when the cycle of CDH is broken.⁽¹⁹⁾ Dewey K et al concluded that psychological characteristics are important factors in the decision to seek medical help for headache⁽²⁰⁾ There were other supporting studies like Lipton et al, van Gessel et al, Zernikow et al confirms Psychosocial aspects of pediatric headaches.⁽²¹⁻²³⁾ Chronic daily headache is a common problem in tertiary centers and among specialists that dedicate to headache patients.

The present study was done in PEH, Hyderabad on Psycho-social profile in patients with chronic headache. The subjects more than 20 yrs and both sexes were included in the study. After obtaining the Socio-demographic details of each subject as per predecided intake proforma, each subject was administered with 3 scales – M.I.N.I neuro-psychiatric interview, the data obtained was analyzed by statistical methods and results were compiled. In India there were no studies done in the past comparing socio-demographic variables and psychiatric morbidity, and personality factors in patients with Chronic headache though there were studies of psychiatric morbidity. The results of this study are interpreted and discussed in relation to studies in review of literature. These findings suggest that research on the role of stress in Chronic Headache should focus on the occurrence of major stressful life events and, cognitive appraisals of stressful events and efforts to cope with stress.⁽²⁴⁾ Over all in this study stress susceptibility is more among the young, females of low Socio Economic Status who are married. The education standard is either at primary level or illiterates. The susceptibility level was ranging mostly in mid range. From this study it may appear that Chronic Headache seems to be common in people who on the one hand are more sensitive to the stressors of life and on the other hand less equipped to cope with such stressors. The high anxiety, emotionality, suspiciousness in combination with dullness, self-doubting, seems to overwhelm the normal coping mechanism and a consequence spill over into the psychopathology and distress. It may be that these forces pulling in

opposite direction may play a significant role in the pathophysiology of chronic headache.

CONCLUSION

Majority of headache problems occurred in the age group between 20 to 40, mainly seen in married women female patient population. Headache sufferers are mostly with primary standard education with low Socio Economic Status. Depression and Generalized Anxiety Disorder (GAD) are by far the predominant psychiatric morbidity in this population. Psychological evaluation should focus on personality characteristics, lifestyle, and life-situation factors that account for individual differences in headache susceptibilities.

LIMITATIONS OF THE STUDY

- Small sample size and not a general population study, it is limited to patients attending specialized out-patient department.

CONFLICT OF INTEREST: NONE

REFERENCES

1. Mueller. Psychologic aspects of chronic headache, JAOA, Vol 100. No 9 • Supplement to September 2000
2. Merikangas, J.R. & Merikangas, K.R. (1999) Epidemiology of headache in general population Journal of Psychiatric Research, 27,197-202.
3. Headache Classification Subcommittee of the International Headache Society. The

- International Classification of Headache Disorders. 2d ed. Cephalalgia 2004; 24 (suppl 1):9–160.
4. Mathew NT, Stubits E, Nigam MP. Transformation of episodic migraine into daily headache: analysis of factors. Headache. 1982; 22:66–8.
 5. Robert smith, University of Cincinnati College of Medicine, Cincinnati, Ohio Am Fam Physician. 2004 Dec 15; 70(12):2272–2274.
 6. Bruijn J, Locher H, Passchier J, Dijkstra N, Arts W-F. Psychopathology in children and adolescents with migraine in clinical studies: a systematic review. Pediatrics. 2010; 126:323–32.
 7. Castillo J, Munoz P, Guitera V, Pascual J. Epidemiology of chronic daily headache in the general population. Headache. 1999; 39:190–6.
 8. Newman LC, Lipton RB, Solomon S, Stewart WF. Daily headache in a population sample: results from the American Migraine Study. Headache. 1994; 34:295.
 9. Lipton, R.B., Liberman, J., Kolodner, K. Migraine headache, disability and quality of life: A population based case control study. Headache, 1999; 39, 365
 10. Horenstein, S. Emotional aspects of neurologic disease. In: Baker, A.B. & Baker, L.H., (Eds.), New York: Harper & Row. 1983; Clinical Neurology pp. 1-3.
 11. Kahana, R.J. & Bibring, G.L. Personality types in medical management. Zinberg, N.E., (Ed.), Psychiatry and Medical Practice in the General Hospital, 1964; pp. 108-123,
 12. Jonckheere, P. the chronic headache patient. Psychotherapy and Psychosomatics. 1971; 19, 53-61.
 13. Wolff, H.G. Personality features and reactions of subjects with migraine. Archives of Neurology and Psychiatry, 1937; 37, 895-921.
 14. Jenkinson, C. Health status and mood state in a migraine sample International Journal of Social Psychiatry 36, 1990; 42-48.
 15. Adelman, J., Sharfman, M., Johnson, R., et al (1996) Impact of oral sumatriptan on work place productivity, health related quality of life, health care use, and patient satisfaction with medication in nurses with migraine. American Journal of Managed Care 2, 1407-1416
 16. Sheehan D.V., Lecrubier Y., Sheehan K.H., Amorim P., Janavs J., Weiller E., Hergueta T., Baker R., Dunbar G.C. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. J. Clin. Psychiatry. 1998; 59 (Suppl. 20):22–33. [PubMed]
 17. Maizels M. The patient with daily headaches. Am Fam Physician. 2004; 70:2299306.2313–4.
 18. Breslau N, Davis GC. Migraine, physical health and psychiatric disorder: a

- prospective epidemiologic study in young adults. *J Psychiatr Res.* 1993; 27:211–21.
19. Mongini F, Defilippi N, Negro C. Chronic daily headache. A clinical and psychological profile before and after treatment. *Headache.* 1997; 37:83–7.
20. Dewey K. Ziegler, MD; Anthony M. Paolo. Headache Symptoms and Psychological Profile of Headache-Prone Individuals A Comparison of Clinic Patients and Controls. *Arch Neurol.* 1995;52(6):602-606. doi:10.1001/archneur.1995.00540300076016.
21. Lipton RB, Manack A, Ricci JA, Chee E, Turkel CC, Winner P. Prevalence and burden of chronic migraine in adolescents study (C-dAS). *Headache.* 2011;51:693–706
22. Van Gessel H, Gassmann J, Kröner-Herwig B. Children in pain: recurrent back pain, abdominal pain, and headache in children and adolescents in a four-year-period. *J Pediatr.* 2011; 158:977–83.
23. Zernikow B, Wager J, Hechler T, Hasan C, Rohr U, Dobe M, et al. Characteristics of highly impaired children with severe chronic pain: a 5-year retrospective study on 2249 pediatric pain patients. *Pediatrics.* 2012. doi:10.1186/1471-2431-12-54.
24. Jeffrey E Holm M.S, Kenneth A Holroyd Ph.D, Karl G Hursey M.S, Donald B Penzien M.S (1986) Headache *The Journal of Head and Face Pain* 26 (4), 160–16