Original article

A STUDY OF PREVALENCE OF MAJOR DEPRESSIVE DISORDER IN PATIENTS PRIMARILY HAVE HEADACHE AS A SYMPTOM

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Abstract

Background

Given the stigma regarding psychiatric illnesses in our country, it is common for patients to visit the O.P.D. with the primary generalized complain which requires a medical personnel to create a rapport and unmask the underlying stressor. Based on surveys like these, training modules can be developed for General practitioners and Community Level Health care workers to create awareness and unmask underlying stressor. **Aims and Objectives** 1 To establish the prevalence of M.D.D. in patients reporting headache as their primary symptom 2To establish co-existence of M.D.D. with Headache disorders 3To quantify the severity of M.D.D. (if present) **Materials and Methodology** Patients coming to O.P.D. of a Private multi-speciality hospital, having full time psychiatry facilities, primarily for treatment of Headache were studied. The patients were first exposed to International Classification of Headache, Then Mini Psychiatric Scale and then if the patients came positive for MDD then they were exposed to HDRS. **Result and Discussion** The main findings of our study are: Maximum proportion of patients presenting to a General Hospital O.P.D. with the primary complain of Headache cannot be classified into a particular type of Headache as per I.C.H. Prevalence of Headache is more common in Females as compared to Males. Prevalence of Major Depressive Disorder is also more common in Females as compared to Males. The prevalence of Moderate type of Major Depressive Disorder is the most common amongst the various grades of M.D.D. this is consistent in both the sexes. The co-existence of M.D.D. was most rampant with Tension Type Headache and Least common with Cluster type Headache. **Conclusion** The study shows how frequently and rampantly Headache and Major Depressive Disorder co-exist and it highlights the need to train the staff and doctors at the Primary and Community Health-care level to explore and create a rapport with the patients visiting the O.P.D. to get to the root of their problems and make sure that the stigma associated with Psychiatric illnesses doesn't lead to people not opening up to the physician, directly increasing the burden of Psychiatric morbidities on the country.

Keywords: Headache, Depression, Stigma

Introduction:

Headache–Headache is the third most common cause of disability worldwide.[1] Headache is one of the most common presentations in an Out Patient Department in any General hospital. Given the stigma that exists in many countries like India[2]as far as Psychiatric diseases are concerned, it has been routinely observed that the patients are usually very guarded about opening up emotionally to the Physician.

Depression- Depression is one of the most common mental disorders and 0.3 Billion people suffer from Depression worldwide i.e. almost 4% of the entire world's population suffers clinical depression. Depression is the leading cause of Disability worldwide and has increased the overall burden on the respective economies worldwide. [3]

Even though many studies have established co-existence of Primary Headache associated with Depression and Anxiety Disorders, there is a dire need of scientific studies aimed at unmasking the alternate or somatic presentations of Depression, the most common of which is Headache [4, 5, 6]

Aims and Objectives:

1. To establish the prevalence of M.D.D. in patients reporting headache as their primary symptom

2. To establish co-existence of M.D.D. with Headache disorders

3. To quantify the severity of M.D.D. (if present)

Materials and Methodology:

Study Site :

- Private multi-specialty hospital, having full time psychiatry facilities.

Subjects:

- Patients coming to O.P.D. primarily for treatment of Headache.

Inclusion Criterion:

1. Patients coming to O.P.D. primarily for treatment of Headache.
2. Voluntarily agreeing to participation in study after full disclosure.

Exclusion Criterion:

1. Patients already diagnosed with a psychiatric illness.
2. Patients below the age of 18 years.
3. Non Co-operative patients.

Time-Frame:

- 2 years time 16th January 2014 to 31st December 2016.

Instruments:

1. International Classification of Headache Disorders developed by Headache Classification Committee of International Headache Society.[7]
2. Diagnostic and Statistical Manual 5th Edition Criterions for Depression. The **Diagnostic and Statistical Manual of Mental Disorders** (**DSM**), devised by the American Psychiatric Association (APA) is used, or relied upon by Psychiatrists worldwide and is considered as a standard diagnostic tool for Psychiatric disorders in India. The DSM is now in its fifth edition, DSM-5, published on May 18, 2013. [8]
3. Hamilton Rating scale of Depression [9,10,11] – The HDRS (also known as the Ham-D) is the most widely used clinician-administered depression assessment scale. The original version contains 17 items (HDRS17) pertaining to symptoms of depression experienced over the past week. Although the scale was designed for completion after an unstructured clinical interview, there are now semi-structured interview guides available. The HDRS was originally developed for hospital inpatients, thus the emphasis on melancholic and physical symptoms of depression. For the HDRS17, a score of 0–7 is generally accepted to be within the normal range (or in clinical remission), while a score of 20 or higher (indicating at least moderate severity) is usually required for entry into a clinical trial. The severity ranges for the HAMD: no depression (0–7); mild depression (8–16); moderate depression (17–23); and severe depression (≥24).

Results and Analysis:

Table 1 Demographic Details of the study population

Demographic characteristics	Sub categories	Males	Females	Percentage Distribution in study (%)
Sex		78	82	100
Age	18 to 25 years	25	25	31.25
	26 to 50 years	30	40	43.75
	51 TO 65 years	23	17	25
Occupation	Unemployed	13	52	40.625
	Employed	65	30	59.375
Education	Illiterate	28	36	40
	Literate	50	46	60

Table 1 shows the demographic distribution of the patients analyzed in this study. The study population was divided based on various demographic variables i.e. Gender, Age, Occupation and Education. Of the population studied of 160 subjects, 78 were males (48.75%) and 82 were females (51.25%). Of the 160 subjects studied, 31.25% belonged to the age group of 18 to 25 years, 43.75% belonged to the age group of 26 to 50 years and 25%

belong to the age group of 51 to 65 years. 40.625% patients studied were unemployed whereas 59.375% were employed. 60% of the patients were Literate and 40% were illiterate.

Table 2- Classification according to type of headache

Type of headache	Male	Female	Total
Tension Type Headache	6	12	18
Cluster Headache	4	3	7
Migraine without Aura	12	15	27
Migraine with Aura	3	4	7
Non Fulfilling any criterion	53	48	101
Total	78	82	160

Table 2 shows the classification of the study population based on the type of headache. Using the International Classification of Headache as an instrument, the population with Tension Type Headache was 11.25%, the population with cluster headache was 4.375%, the patients diagnosed to have Migraine with aura were 4.375% and Migraine without Aura were 16.875%, whereas 63.125% patients did not meet the criterions for any particular classification for Headache.

Table 3 Classification based on Major Depressive Disorder

MDD	MALE	FEMALE	TOTAL
YES	42	58	100
NO	36	24	60
TOTAL	78	82	160

In table 3, patients are classified based on their sex and presence or absence of Major Depressive Disorder as per DSM-5 criterions. 42 Males i.e. 53.85% males were found to be positive for Major Depressive Disorder, whereas 70.73% females were found positive for Major Depressive Disorder. Of the total patients found positive for M.D.D. 42% were Males and 58% were Females.

Table 4 Classification based on Severity of Depression

HAM D scores	Severity of Depression	MALE	FEMALE	No of patients
8 to 13	Mild	7	14	21
14 to 18	Moderate	25	30	55
19 to 22	Severe	8	12	20
≥ 23	Very severe	2	2	4
Total	-	42	58	100

Table 4 shows Classification of the study population with Major Depressive Disorder based on the severity as per HAM-D scale. 21% patients had Mild Depression, 55% had Moderate Depression, and 20% had Severe while 4% had Very Severe Depression.

Table 5 Classification of Study Population based on Types of Headache

Type of headache	HAM – D ≥ 7	MALE	FEMALE	Total
Migraine with aura	2	1	1	(3/4)7
Migraine without aura	16	6	10	(12/15)27
Tension type headache	15	5	10	(6/12)18
Cluster headache	1	0	1	(3/4) 7
Total	34	12	22	

Table 5- Shows Classification of Study Population based on Types of Headache, prevalence of Major Depressive Disorder and Sex. Of the Total 100 patients found positive for Major Depressive Disorder from the 160 patients studied, 34 patients also had a classifiable type of headache as per International Classification of Headache. Of these 34 patients, 5.88% had Migraine with Aura (2.44% Males and 2.44% Females), 47% had Migraine without Aura (17.625% Males and 29.375% Females), 44.12% had Tension Type Headache (14.7% Males and 29.42% Females), 2.94% had Cluster Headache (Female).

53% Patients with Migraine type Headache had co-existing Major Depressive Disorder, whereas 83.33% of patients with Tension Type Headache had Co-existing Major Depressive Disorder.

Discussion:

- The main findings of our study are: Maximum proportion of patients presenting to a General Hospital O.P.D. with the primary complain of Headache cannot be classified into a particular type of Headache as per I.C.H. Prevalence of Headache is more common in Females as compared to Males. Prevalence of Major Depressive Disorder is also more common in Females as compared to Males. The prevalence of Moderate type of Major Depressive Disorder is the most common amongst the various grades of M.D.D. this is consistent in both the sexes. The co-existence of M.D.D. was most rampant with Tension Type Headache and least common with Cluster type Headache.

- While comparing our study with the Epidemiology of migraine and other types of headache in Asia report [(12)] we found that the prevalence of Tension Type headache was more than Migraine type in that particular report while it was vice versa in our study. Both the studies were similar in finding the prevalence of Migraine without Aura to be more than Migraine with Aura.

- While comparing with Migraine, psychiatric disorders and suicide attempts: An epidemiological study in young adults[(13)] we found that in both the studies the prevalence of Migraine was more common in females. While in our study the incidence of M.D.D. with Migraine without Aura was more than the incidence of M.D.D. with Migraine with Aura, it was vice-versa in the above mentioned study

- While comparing our study with, Chronic Pain and Depression: Does the Evidence Support a Relationship?[(14)]we found both the studies in sync in the observation that M.D.D. is more prevalent in patients with a classifiable type of headache than in patients without a particular type of headache.

Conclusion:

- The study shows how frequently and rampantly Headache and Major Depressive Disorder co-exist and it highlights the need to train the staff and doctors at the Primary and Community Health-care level to explore and create a rapport with the patients visiting the O.P.D. to get to the root of their problems and make sure that the stigma associated with Psychiatric illnesses doesn't lead to people not opening up to the physician, directly increasing the burden of Psychiatric morbidities on the country.

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