



**ORIGINAL RESEARCH PAPER**

**Psychiatry**

**COMPARISON OF SLEEP QUALITY BETWEEN TENSION TYPE HEADACHE AND MIGRAINE**

**KEY WORDS:** Migraine, Tension Type Headache, Sleep Quality.

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**ABSTRACT** Migraine and tension type headache are the most common types of headache in the general population. In this study, our goal is to compare the sleep quality among common headache types (ie: migraine and tension type headache). Sleep and headache problems are among the significant concern of health sector. But the exact relationship between these two important has been studied less. Both sleep disturbance and chronic headache also greatly increase the risk of depression ,anxiety and other psychiatry disturbances hence further affecting the complex relationship between sleep and headache.

**INTRODUCTION**

Migraine and tension type headache are the most common types of headache in the general population. In this study, our goal is to compare the sleep quality among common headache types (i.e.- migraine and tension type headache). Sleep and headache problems are among the significant concern of health sector. But the exact relationship between these two important has been studied less. Both sleep disturbance and chronic headache also greatly increase the risk of depression ,anxiety and other psychiatry disturbances hence further affecting the complex relationship between sleep and headache.

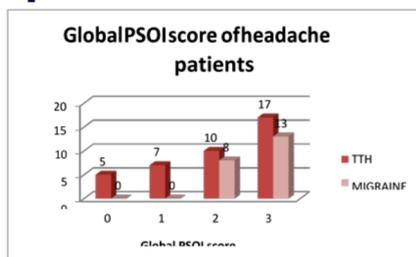
**METHODS:**

Present sample consists of 60 patients who presented with the complaints of tension type headache and migraine to the neuropsychiatry clinic in a tertiary care institute. From August 2016 to June 2018. This is a cross sectional Observational study. After being evaluated by the neuropsychiatry clinic, the patients along with records of treatment and classification of migraine and tension type headache will be evaluated for sleep quality. A self-administered questionnaire Pittsburgh Sleep Quality Index (PSQI) that assesses sleep quality and sleep efficiency over a 1-month time interval was used to collect data.

**OBSERVATION AND RESULTS:**

5 patient (8.33%) patients with primary headache had global PSQI scores ≤ 5, indicating good sleep quality, while 57 (95%) patients had poor sleep quality (>5 global psqi) .Developers of psqi have suggested a cutoff score of 5 for the global scale as A global PSQI score > 5 yielded a diagnostic sensitivity of 89.6% and specificity of 86.5% in distinguishing good and poor sleepers. The clinimetric and clinical properties of the PSQI suggest its utility both in psychiatric clinical practice and research activities.

**Bardiagram 1. Bardiagram showing PSQI scores in TTH & Migraine patients**



**Table -1. table showing global PSQI scores in Migraine & TTH patients**

Global PSQI score	TYPE OF HEADACHE		Total	Percentage
	Migraine	Tension type headache		
0-5	0	5	5	8.33%
6-21	21	34	57	95.00%
<b>Total</b>	21	39	60	

**Table- 2. Table showing comparison of sleep quality in TTH & Migraine patients.**

Global PSQI score	TYPE OF HEADACHE		Total	z test statistics	Significance
	Tension type headache	Migraine			
0-5	5	0	5	1.71	not significant
6-21	34	21	57	1.71	not significant
Total	39	21	62		

- Comparison between tension type headache and migraine not significant
- Z test of proportion is applied to find the significance of difference of proportions of patients having sleep scores from 0 to 3 between two groups tension type headache (n=39) and migraine (n=21)
- SUBJECTIVE SLEEP QUALITY -In TTH gr number of patients are greater having score 1 and 3 ( fairly good & very bad) which is significant at 5% level of significance means migraine patients are having better subjective sleep quality .
- SLEEP LATENCY -In TTH gr number of patients are greater having score 1, and 3 ( fairly good, very bad ) which is significant at 5% level of significance
- SLEEP DURATION -In Migraine grp proportion of patients is greater having score 3 (< 5 hrs ) which is significant at 5% level of significance. sleep duration is less in migraine patients.
- HABITUAL SLEEP EFFICIENCY -In TTH gr number of patients are greater having score 3 (< 65%) which is significant at 5% level of significance

**DISCUSSION:-**

- SLEEP DISTURBANCES - In TTH group number of patients are greater having scores 0, 1, 2 which is significant at 5% level of significance , so Migraine have less sleep disturbance than TTH group.
- Kelman and Rains found that insomnia was found to be even more common in individuals with TTH than in those with migraine.<sup>10</sup>

- Similar results were found in a study done by César Fernández-de-las-Peñas and it was stated that Sleep disturbances and headache disorders share common brain structures and pathogenic mechanisms and TTH, migraine, and sleep disturbances often occur together; for example, 50% of individuals who have either TTH or migraine have insomnia. Moreover, insomnia and poor sleep quality have been associated with a higher frequency and intensity of headache attacks, supporting the notion that severity and prevalence of sleep problems correlate with headache burden.
- **USE OF SLEEPING MEDICATION** - In TTH group number of patients are greater having score 1, and 3 which is significant at 5% level of significance TTH pt use sleep medication more.
- **DAYTIME DYSFUNCTION**- In TTH group number of patients are greater having score 1, which is significant at 5% level of significance. TTH patient have fairly good day time functioning in comparison to migraine patients.

**CONCLUSION:-**

We hypothesize that the TTH and migraine patients both had poor sleep quality index, their comparison is not significant. Subjective sleep quality, sleep efficiency, sleep latency, sleep duration, sleep disturbances, day time dysfunction and use of sleep medication is more in TTH patients in comparison to Migraine patients. TTH patients seems more susceptible to sleep disturbances and need more sleep than migraine patients but more and similar evaluation and study are needed to complete and confirm this relationship in future.

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