



Biopsychosocial wellbeing of patients with migraine

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ABSTRACT

Headache is a common complaint across all age groups. The second most common cause of headache, is migraine. Migraine pain can be intense and unremitting. A study on biopsychosocial wellbeing of migraineurs was conducted at a selected tertiary care hospital in Karnataka. The objective of this descriptive survey was to assess the biopsychosocial wellbeing of migraineurs. Sixty adult migraineurs of age group 18-64 years were selected using purposive sampling technique. Fifty percentage of migraineurs were in the age group of 31-50 years of age. Seventy percentage of the study participants were females. Overall biopsychosocial assessment showed that sixty percentage of the migraineurs had low biopsychosocial wellbeing. A statistically significant positive correlation was found among biological, psychological and social domains of wellbeing. The study concluded that migraine affects the biological, psychological and social wellbeing of the migraineurs.

KEYWORDS

Headache, Migraine, Biopsychosocial wellbeing, Quality of life.

INTRODUCTION

Headache is a common complaint across all age groups. Recurrent headaches cause a considerable burden on the individual as well as the society. The second most common cause of headache, is migraine (Hauser, 2006). Population-based studies showed that 46% of adult population had active headache with 11% being migraine. In a primary care setting, common disabling type of headaches are migraine. Migraine can occur at any age but frequently begins during puberty. It is most prevalent in individuals aged 25–55 years which is considered as the most productive years in the life of a person. Among this population migraine is one of the prominent causes of chronic suffering and disability (Netter, 2012). Migraine pain can be intense and unremitting. It can interfere with the daily routine and reduce the ability to think & function normally. (Tyagarajan, 2006).

Migraine headaches are the 3rd most common medical problem in the world with a global prevalence of 14.7%. Migraine was ranked seventh highest cause of disability globally (Steiner et al, 2013). According to 'Atlas of headache disorders' (2011) by WHO, the prevalence of migraine in South East Asian region was 10.9%. 'Extrapolation statistics on prevalence rate of migraine to countries and regions' (2012) reports that approximately one hundred and nine million Indians are suffering from migraine.

A prospective study was conducted to examine the clinical profile of migraineurs visiting Neurology department of a tertiary care centre, India. Majority i.e., 72% of the subjects were females and 28% were males. Mean age of migraine onset was found to be at 23 years. Daily work was prohibited by headache among 59.6% of cases (Panda & Tripathi, 2005). A survey among medical students showed that sixty-eight percent of medical students had headache. The prevalence of migraine was 28%. One-fourth of the students had

weekly or daily attacks with 31% students reporting increase in their headache intensity and frequency (Menon & Kinnera, 2013)

Literature review was focused on areas of prevalence of migraine, clinical characteristics of migraine, wellbeing and quality of life of migraineurs. It was found that migraine is accompanied by considerable functional impairment which can result in both physical and emotional problems. Various research works reports that migraineurs experience a lower quality of life than other patients who suffer from chronic problems like depression, hypertension and diabetes (Rasmussen BK, 2001). Migraine headaches results in significant impairments in physical, social and mental domains of health. Migraine affects various aspects of the lives such as physical, vocational, academic, social, financial, and family. This article explores the wellbeing of migraineurs in the biological, psychological and social domains of health.

The objectives of this study were to assess the biopsychosocial wellbeing of migraineurs and to examine the relationship between; i. biological and psychological wellbeing of migraineurs, ii. Biological and social wellbeing of migraineurs and iii. Psychological and social wellbeing of migraineurs. The major study variable was biopsychosocial wellbeing of migraineurs.

METHODS

In order to assess the biopsychosocial wellbeing of migraineurs, a descriptive survey design was found appropriate. The study was conducted at the neurology outpatient department of a selected tertiary care hospital, Karnataka. Subjects of the study were adult migraineurs of age group 18- 64 years who attended the neurology outpatient department of the selected hospital. The sample size was calculated statistically. The sample size for this study was 60. For ensuring the ethical concerns in the research methodol-

ogy,approval was obtained from Institutional Ethics Committee and necessary administrative permissions were obtained.Consent from migraineurs was obtained prior to the data collection. Anonymity as well as confidentiality of the subjects were ensured throughout the study

RESULTS

Version 15 of SPSS (Statistical Package for Social Sciences) software was used for data analysis. Descriptive and inferential statistics were used to analyse the data. The results are organized based on the objectives of the study.

I. Description of sample characteristics: A structured demographic proforma was used to collect information on the sample characteristics. Fifty percentage of migraineurs were in the age group of 31-50 years of age. There was female preponderance with 42 out of 60 (70%) study subjects being females. Out of 60, 14 migraineurs had higher secondary education. Seventeen out of 60 (28.3%) migraineurs were unemployed. Most of the migraineurs, (68.3%) were from rural area and 50 (83.3 %) were from nuclear family. Forty seven out of 60 migraineurs (78.3%) were diagnosed to have had migraine for a period less than or equal to 10 years. Family history of migraine was present in 17, (28.3%) migraineurs under the study.

II. Biopsychosocial wellbeing of migraineurs: Biopsychosocial wellbeing was assessed using the rating scale on biopsychosocial wellbeing of migraineurs. This tool consisted of 45 items pertaining to the biopsychosocial wellbeing of migraineurs, organized under 3 domains of biological, psychological and social wellbeing. Total number of items were 15, 20 and 10 for biological, psychological and social domain respectively. Each item was rated on a 4 point scale with ratings as "always", "sometimes", "rarely" and "never" with scores 1,2, 3 & 4 respectively. The maximum possible score of the tool was 180. The biopsychosocial wellbeing was categorized as low (scores 45-99), moderate (scores 100-153), and high (scores 154-180). Frequency and percentage distribution of biopsychosocial wellbeing of migraineurs were computed. The findings are shown in the Table 1.

Table 1: Frequency and percentage distribution of biopsychosocial wellbeing of migraineurs (n=60)

Biopsychosocial wellbeing	Frequency (f)	Percentage (%)
Low wellbeing	36	60
Moderate wellbeing	24	40
High wellbeing	0	0

The data presented in table 1 denotes that a greater percentage of migraineurs, i.e. 36 out of 60 (60%) had low biopsychosocial wellbeing. Moderate level of biopsychosocial wellbeing was evident in 40% of study subjects. None of the migraineurs had high level of biopsychosocial wellbeing.Further analysis was done to describe the domain wise wellbeing of migraineurs and the results are presented in the figure 1.

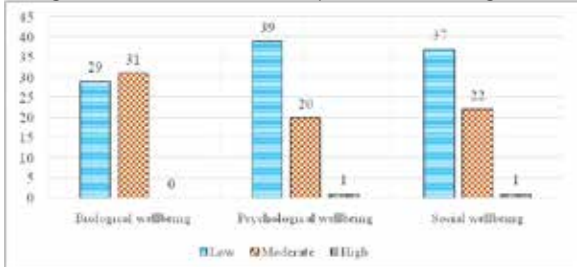


Fig 1: Bar diagram on levels of biological, psychological & social wellbeing of migraineurs (n=60)

Figure 1 shows that 29 out of 60 migraineurs were having low biological wellbeing. Thirty nine out of 60 migraineurs were having low psychological wellbeing and 37 migraineurs

were having low social wellbeing. Even though there was one migraineur each in the high wellbeing category under psychological and social domain; in the overall biopsychosocial wellbeing, there were none in the high biopsychosocial wellbeing category.

III. Relationship between biological, psychological and social wellbeing.

Spearman's rho was computed in order to find the relationship between biological & psychological, biological & social, and psychological & social wellbeing. The analysis is represented in Table 2.

Table 2: Correlation between various domains of biopsychosocial wellbeing of migraineurs n=60

Domains	ρ	P Value
Biological & Psychological wellbeing	0.347	0.007
Biological & Social wellbeing	0.478	0.001
Social & Psychological wellbeing	0.492	0.001

Table 2 represents Spearman's rho computed between domains (Biological & Psychological wellbeing; Biological & Social wellbeing; Social & Psychological wellbeing). The analysis showed that there was a statistically significant positive relationship between biological and psychological wellbeing ($\rho = 0.347$, $p= 0.007$); biological and social wellbeing ($\rho = 0.478$, $p= 0.001$); and social and psychological wellbeing ($r= 0.492$, $p= 0.001$). It is interpreted that the domains of wellbeing are related, indicating that when wellbeing of one domain is affected,the wellbeing in other two domains also will get affected.

DISCUSSION

Lipton et al (2007) conducted a study to assess the migraine prevalence. The prevalence of migraine was found to be highest in subjects aged 30 to 39.The prevalence was high among females. In the present study 50% of the migraineurs were in the age group of 31-50 years of age. There was female preponderance with 42 out of 60 (70%) study subjects being females. The findings of this study is supported by studies of Lipton et al (2007).

Aud Nome (2004) conducted a cross-sectional study among migraineurs in Israel and eight European countries. The study concluded that migraine is associated with a significant impairment in physical, social and professional life of women.The present study findings showed that 60% of the migraineurs had low biopsychosocial wellbeing. Forty eight percent of migraineurs had low biological wellbeing. Low psychological wellbeing was evident in 67% of subjects under study. Majority of the subjects, 61 % had low social wellbeing.

CONCLUSION

Migraine affects the biological, psychological and social wellbeing of the migraineurs. Majority of the migraineurs experience a low level of biopsychosocial wellbeing. Migraine headache are found to cripple the wellbeing of patients with migraine.

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