

COMPARATIVE STUDY OF ROLE OF ANGER IN MIGRAINE

Sharmila Gunpal

Associate Professor, Department of Psychology, Dayanand College, Hisar

ABSTRACT

The present research focused to analyze the gender variations in the function of rage in migraine headaches. As everyone is aware, headaches are the most typical ailment for which patients visit neurologists and doctors. Since the beginning of society, it has bothered people. There may be a variety of causes for migraines. The most significant etiological factor for migraines appears to be anger, which can have distinct effects on men and women. Particularly suppressing anger may contribute to migraines, and women are more likely to develop migraines as a result. Therefore, the objective of the research is to study how migraine patients communicate their rage and how their gender differs. 200 people made up the sample that was chosen for this investigation. All of the individuals had been identified as migraine sufferers. All of the patients were given Spielberger's Anger Expression Scale, a specially constructed five-point scale for measuring perceived pain severity, and a four-point scale for measuring attack frequency. The acquired data were examined using Pearson correlation coefficients and indices of central tendency.

KEYWORDS:- Anger, Migraine, Headache Attacks.

INTRODUCTION

MIGRAINE HEADACHE

Migraine is a disorder characterized by frequent headache attacks, feeling sick, throwing up, and hypersensitivity. Migraine is regarded as a chronic medical condition, much like epilepsy and asthma. The French word migraine is derived from the Greek word hemicrania. Hemicrania translates to "only half of the head." However, it is not always a unilateral headache; it can also be bilateral. "The Ad Hoc Committee on Classification of Headache," which was formed in the 1960s, gave the following definition of migraine headache: "Recurrent headache attacks that vary greatly in severity, frequency, and duration. The attacks usually start unilaterally and are frequently accompanied by nausea and vomiting in addition to appetite loss.

According to the ICHD-2, two most common types of migraine are migraines with aura as well as migraines without aura. The International Headache Society (IHS) classified these as common migraine and severe migraine in 1988.

1. Migraine without aura is a clinical condition that causes headache-related symptoms. The ICHD-2 criteria for migraines without aura list several characteristics. The pain has unilateral and throbbing characteristics, but it can also be bilateral. If untreated, attacks often last 4 to 72 hours.

2. Migraine with aura: Significant revisions have been made to the definition of migraine with aura. Visual aura is frequent kind of aura, with symptoms generally appearing over five minutes or more and lasting no longer than 60 minutes. Flashes of light, blind spots, and other vision alterations are among the symptoms, as are tingling in the hands and face. About 1/3rd of people with migraine with aura experience sensory complaints.

ANGER

Anger appears to be the most pervasive reality of contemporary existence. Why do people act violently against others? The idea that people are predisposed to violence by their nature is the best-known explanation for human hostility. Anger is the cause of murder, suicide, drunkenness, and divorce, among other things. Instead, nearly every minor stressor leads to rage, impatience, and even dissatisfaction. The importance of rage in daily life has frequently been highlighted by psychologists and philosophers (Sarson, 1960). The most significant emotion that we struggle to control is anger. It stands for the psychological or affective side of aggressive behaviour. Anger can be categorized as a trait by Spielberg (1983) identified that the anger is an emotion that contains discontent and includes subjective sensations that range from minor aggravation to enormous frenzy. Van de Poll (1994) found that internal condition is anchored in a specific situational environment, with the assumption that it would alter over time in reaction to perceived unfairness or unhappiness. Anger will increase if the cause is seen as intentional, avoidable, unreasonable, and blamable when principles are not followed, expectations are not kept, individual's rights and freedom are limited (Ramrez et. al., 2002). It was noticed that mental distortions and deficits, nervous system, as well as social support, are frequently present in its wake Ramrez (2002) and Sukhodolsky (1995). Trait anger is considered as a normal mental status for reaction where anger emotional state are feelings in order to a wide range of activates or stimulus, i.e. noticing an unexpected spelling error made by a student or encountering a brief hold-up in the checkout queue. Anger is self is considered as a personal characteristic with reference to any individual and depending upon every individual difference to interpret the reactions in anger (Deffenbacher, 1992; Ramrez, 2002; Van Goozen et al., 1994).

Anger experienced as a state of emotion (S-anger) and personal variations for feeling expression towards personality characteristic (T-anger) must be theoretically as well as empirically separated from the display of anger. Funkenstein, King, and Dralette (1954) first established the idea of "anger-in" and "anger-out" in their seminal research on the impact of rage expression on the circulatory system. People who tend to repress their anger or channel it inward towards the ego or self are often labelled as "Anger-in" in a research on anger expression (Averill, 1982; Funkenstein, King and Drallte, 1954; Tavris, 1982). If they show anger towards other people or the environment, they are categorized as "anger-out". As a result, "anger-out" typically refers to both the S-anger sensation and aggressive behavior. According to the psychoanalytic concept of anger directed inward towards the ego or the self, feelings of guilt and depression will likely be experienced through thoughts and memories associated with the event that gave rise to the anger, while the actual feelings of anger themselves may be suppressed and thus not directly experienced (Alexander & French, 1948). After adjusting for melancholy and anxiety, rage and how it is expressed varies between people with and without headaches. People with headaches may have more difficulty controlling their anger and expressing it than people without headaches. In another research, it was examined that whether there is any association of trait anger or anger-in various peered groups apart from anxiety and the association between depression, anxiety, tension, hostility and depression in people while experiencing headaches. 422 persons who were recruited from a bigger study being conducted at a university participated in the study. An additional 251 gender mixed respondents were studied to understand a group without headache and mean valued for age category of 21 years for 81% female, 62% Caucasian. 171 of them (mean age 21; 81% women; 69% Caucasian) reported headaches. Participants were given affective trait tests, such as the State-Trait Inventory of Anxiety (Trait version), the Brief Symptom Inventory-Depression, the Trait Anger Scale, the Cook-Medley Hostility

Scale and a measure of how much they suppress their anger, in addition to information about the characteristics of their headaches. Subsequently adjusting for degrees of depression, intrinsic frustration and nervousness, the findings of the research demonstrate that people who experience headaches aggressively repress their anger more than other people. There was no longer a difference in people distinctive rage once anxiety and depression were corrected. Additionally, anger-in was the most accurate indicator of headaches. According to recent research, people who have headaches are efficient to control the anger in check (Robert, Nicholson, Gramling, Ong, and Luis Buenevar, 2003).

LITERATURE REVIEW

Researchers have tried to identify the etiological causes of headaches over the years. Psychoanalysts and other medical professionals have noted several distinct personality features connected to migraine headache sufferers. One of them is anger. According to Bag, Hacıhasanoglu, and Tufekci's research from 2005, psychological aspects have long been a subject of study about headaches. The study's main objective was to look at patients' psychological symptoms such stress, hopelessness, anger, and tension-type headache (TTH), as well as to correlate the findings to those of healthy controls. The control group in this study consisted of 73 healthy individuals, 55 TTH patients, and 75 migraineurs, as classified by the International Headache Society. In comparison to healthy controls, headache patients scored significantly lower on psychological symptoms and higher on anxiety, aggression, and depression.

According to John, Stanley, and Leo (1971) identified that a migraine sufferer is an individual who reacts aggressively to numerous circumstances on daily basis but is unable to express their rage clearly and effectively. The average migraine sufferer is regarded as being very controlled in his behaviour and possessing personality features that make him seem like a "nice" and "agreeable" person to others. The personality characteristics and anger expression of 88 patients with varied headache diagnoses and 27 controls without a history of headaches were compared to ascertain whether these associations are, in fact, present. The 41 tension headache cases and the 27 controls were contrasted with the 33 migraine cases. The patient's social history, her parents' headaches, and her present chronic ailments were all covered in the questionnaire. The questionnaire also contained a large number of items from attitude and behavior measures connected to anger as well as an adjective checklist. Inquiries were made about the patient's and his or her parents' prior displays of rage as well as their present attitudes towards the management of rage, love, and worry. The study found different personality differences intension and migraine headache people including the characteristic that distinguish the individual with headache from others. These findings confirm the clinical literature while also providing a new dimension. The psychological components that might be etiologically connected to migraines were studied by Henryk-Gutt and Rees in 1973. The study identified some variable that are directly correlated with headaches due to migraine when it compared with non-migraine controls. Migraine sufferers much more highly rated the category evaluating aggressive behaviors, which includes impatience, verbal hostility, assault and hostility. There was not a big difference in female who are having typical ordinary migraine headaches in present time. It was found in the research that emotional stress may operate as a trigger for migraine headaches and that there is evidence of increased autonomic nervous system reactivity in migraines.

According to Schnarch and Hunter (1979) aggressiveness was shown to be the primary trait of an individual that is associated with migraine headaches. It was also noticed that repressed hostility, intolerance of frustration, rigidity, pregenital obsession, perfectionism, sexual exploitation, and lack of family support, support from friends and relatives, emotions,

inflexibility were all identified in the study. As a result, everyone finds it difficult to control the emotion of fury. When two different groups were studied having migraine with no migraine headaches and the results were representing that there was a significant differences in between these two groups related to qualities such as suspicion of others and fear of expressing anger, both were higher in migraine group. Anger along with migraine has a considerable link, according to Endler and Okada (1975). Subjects with migraines were put in situations that made them angry and were then observed. When compared to pain sufferers and healthy controls, they showed less anger and had different physiological reactions. Another feature of the situation's psychological makeup and trait fury were investigated as potential migraine headache causes. Data were collected and analyzed using a daily headache diary, clinical opinions of behaviors, self-reports of emotions and psychological assessments. The study found a strong correlation between inexplicable wrath and migraine when it was contrasted with tension-related headaches, no headache controls and chronic pain.

According to research by Paulin, Waal-Manning, Simpson, and Knight from 1985, headaches can also be brought on by mental stress, excessive alcohol consumption, exhaustion, and eye strain. Additionally, it was discovered that the frequency of headaches increases linearly with the presence of negative emotions including despair, trait anxiety, and rage. They measured traits of sadness and anxiety as well as trait anger using a self-report questionnaire. There was a correlation between the three instruments' results and the frequency of headaches. According to the researchers, there is a connection between the frequency of headaches and male and female traits of anger, anxiety as well as depressive disorder scores. A study on migraine sufferers was undertaken by DiGuiseppe and Tafrate in 1985. The present research looked at migraine sufferers who were also examined for trait anger. Subjects who had previously experienced migraines were contrasted with a control group of individuals who had never experienced a migraine. It was predicted that people with migraines would exhibit a markedly higher level of trait rage. It was specifically hypothesized that migraine headache sufferers had higher levels of rage-in or suppressed anger compared to non-migraine headache controls.

Barbara and Scholz evaluated the anger experiences, psycho-physiological signs of anger, as well as anger expression of migraines candidates with those in pain and healthy controls in a study published in 1987. For the analysis, sample of data was collected from 72 female candidates. In contrast to the two control groups, migraine patients shows a lesser anger behavior, had lower blood pressure, and had greater heartbeat rate. Repression and self-aggression were two psychological defence strategies that Passchier, Goudswaard, Orlebeke, and Verhage (1988) examined. The study assessed 23 female migraine sufferers who are not getting any medication for their symptoms as well as 23 matched controls that had experienced comparatively few headaches. There were psychology students in every class. Using the defense mechanism inventory, every matter has been rated high to low on suppression with aggression. The EMGs of the frontal, temporal, and corrugators as well as the forehead temperature, conductance of the skin, heart and respiration rates, and digital arteries, were measured during three distinct sessions: adaptation, a test of intelligence, and a real-life stress test (part of the psychology curriculum). Migraine patients exhibited increased emotional repression and considerably higher levels of self-aggression when compared to controls. It was found that there was a clear correlation between self-aggression and pain frequency. Regarding physiological tests, repressors had a minor trend for increased sympathetic activity in both groups. Self-aggression was shown to be associated with lower temporal blood flow rather than any physiological indicator of sympathetic activation. Correlations among psychological systems and physiological activity have been established

in general, implying that there may be physiological pathways via which emotional inhibition may contribute to a migraine episode following a stressful encounter.

Martin et al. (1998) investigated connection between headaches and mood, as well as migraine and tension headache triggers, in their study. On the same day that the headaches occurred, they reported various moods, such as worry, aggression, depression, exhaustion, and bewilderment that were connected with headache intensity. No one mood was determined to be more relevant than others, despite the low intensity. Based on the individuals' self-reports, they again identified five elements that are precursors of headaches. Anxiety, rage, and depression made up factor one (negative affect). The second component was visual disruption (glare, flicker, and eye strain). Other factors included consumptive stimuli (alcohol, hunger, and certain foods), somatic disturbance (sneezing, sexual activity, and coughing), environmental stress (high temperature, humidity, and a relaxation style that is the contrary of that), and somatic disturbance (sneezing, coughing).

In a study by Vanessa, Venable, Carlson, and Wilson from 2001, migraine sufferers revealed considerable levels of rage, melancholy, anxiety, and tension. The degree to which these variables are interconnected is unclear, though. The study's aim was to investigate how anger affects headaches and how it relates to stress from daily life, sadness, and anxiety. The participants were 65 young ladies who were headache sufferers regularly. The sample was gathered via a mass screening of young adult women to identify individuals with recurring headaches using the headache symptoms list. The Mood and Anxiety Symptoms Questionnaire, the Hassles Scale, and the State-Trait Anger Expression Inventory were completed by those who reported having headaches. The findings demonstrated a substantial link between fury suppression, denial, and anxiety in persons who suffer from headaches. The Mood and Anxiety Symptoms Questionnaire assisted researchers to investigate general distress symptoms separately from symptoms linked with anxiety and depression. According to the results, headache sufferers showed more generalized discomfort than those who were worried or depressed. It is also noticed that mixed headache people also did well on general and particular measures of despair, as well as the ability to regulate their anger, indicating that they might have become psychologically upset than individuals with tension-type headaches.

According to Robert et al. (2003), persons who suffer from headaches might experience more trouble repressing their anger than those who do not suffer from headaches. The main objective of the research was to find whether anxiety differed with anger characteristics, actual anger in various groups and depression by having respondents without or with migraines complete measures of hostility, depression, and anger-in and trait anger. The study, which was carried out in an academic setting, involved 422 adults. 251 of them satisfied headache-free group requirements and were sex-matched and 171 had headaches. In addition to information about the characteristics of their headaches, participants were given affective trait tests including the State-Trait Inventory of Anxiety (Trait version), the Trait Anger Scale, the Cook-Medley Hostility Scale, the Brief Symptom Inventory-Depression, and a measurement for people's anger. Significant differences between the two groups were identified using multivariate analysis of variance. After controlling for all other variables, the step-down analysis revealed that the headache group had greater degree in anger. With the adjustment in anxiety and depression, there were no differences in trait hostility or anger between groups. Hence, regardless of controlling for various stages of trait rage, sorrow, anxiety, the current results imply that persons who suffer from headaches repress their anger more frequently than people who do not suffer from headaches. With controlling for melancholy, anxiety, participants no longer varied on trait anger. Additionally, the best

predictor of headaches was anger-in. According to the most recent research, headache sufferers are more likely to contain their rage inside.

Maria E. (2013) analysed the personal characteristics of mothers suffering from migraine without aura using an objective criterion. It is noticed that 269 respondents of MoA children (Male 153 and female 116) under age category of 6 to 12 years was having mean age for male 8.93 and for female 3.57 years in contrast to those of 587 respondents having healthy kids (271 female and 316 male) with mean age for female 3.57 and for males 8.74. In moms of MoA children, the clinical content subscales for paranoia, obsessiveness, sorrow, cynicism, health concerns, lack of self-esteem, working style and critical treatment indication had considerably higher values ($P = 0.001$ for all variables). Additionally, they scored much higher on the clinical basic subscales for paranoia and social reticence.

In both cross-sectional and longitudinal studies, K. Gyongyi et al. (2016) have regularly discovered a connection between migraines and psychological discomfort. In this study, researcher hypothesized that a consistent predisposition for preservative thought, i.e. rumination, may reduce the relationship of migraine with psychological pain. Total 3143 candidates were participated as the recruitment sites for two separate European population cohorts that were analyzed. Well-structured questionnaires were used to assess migraine symptoms, current psychological distress, and depressed rumination. SEM was applied to assess the potential mediating effects of heavy elements of rumination between migraine and psychological discomfort. The analysis took into account variables like sex, age, and prior depression. Brooding was found to be a moderator between migraine and psychological distress, but only in the Budapest sample did reflection significantly mediate the relationship. Greater brooding and reflection scores were predicted with migraine.

Imai, Noboru, et al. (2023) looked at migraine as a main disorder due to headache that is linked to several things, including stress, women's hormones, fasting, the weather, sleep disturbance, and odors. We set out to classify the smells connected to migraines and investigate how they relate to clinical traits. A questionnaire was completed by 101 migraine sufferers to identify the smells connected to migraine attacks. The study used CFA to investigate the common characteristics for odors and the association in characteristics and the clinical traits. Six common elements were identified by the factor analysis: the first was foetid odor; the second was cooking items; the third was oil derivatives and other substances; the fourth was shampoo and conditioner; the fifth was cleaning products; and the sixth was fragrances, pesticides, and roses. It was found that 5th factor was more linked to migraine in individuals with chronic migraine ($P = 0.037$). Total 5 Component also included fabric softeners, laundry detergents, and hair styling products typically those with floral scents.

According to the studies mentioned above, suppressing one's ability to express their anger openly has a significant role in the etiology of headaches. The specific role of anger-in is still unknown, despite the studies conducted here and several other elements. Therefore, thorough research that can outline the precise function of rage, tension, etc. is necessary.

OBJECTIVES

1. To determine how migraine sufferers vent their anger.
2. To examine the gender differences in migraine patients' expressions of rage, perceptions of the severity of their pain and frequency of their attacks.
3. To research the connection between migraine and anger expression.

HYPOTHESES

The following assumptions were developed in order to meet these goals:

1. Migraine and anger expression would be strongly and favorably connected.
2. Among migraine sufferers, there would be favorable and significant gender differences in the way that anger is expressed as well as in how intensely and frequently migraines are felt.
3. The expression of fury among migraine sufferers would play a substantial and advantageous effect.

SAMPLE

Total 200 respondents were selected from civil and private hospitals/clinics located in different district i.e. Hisar, Bhiwani, Rohtak and Sirsa of Haryana. Total 108 male and 92 female participated in the present study those had diagnosed for migraine for not less than 6 months and those getting treatment more than one year on regular basis.

TOOLS USED

The following resources were employed in this study:

1. The State-Trait Anger Expression Inventory-2 (STAXI-2), by Spielberger (1988).
2. A scale intended to measure perceived intensity and frequency of migraine pain has been specially developed.

DATA ANALYSIS

Section-1

Table No. 1 Descriptive analysis for different measures of total sample (N=200)

Sr. No.	Variables	Mean	S.D.
1	Total Anger Expression	26.83	9.72
2	Anger Expression-in	17.70	5.20
3	Anger Expression-out	15.23	3.96
4	Anger – Control	21.46	4.72
5	Perceived Intensity of pain	2.80	1.32
6	Perceived Frequency attack	2.39	1.09

Table No. 1 displays the results of computing the mean and an SD for each measurement made by the complete sample or 200 migraine sufferers. The Spielberger anger expression scale have been used to calculate mean value and S.D. For controlling expression for anger, mean value and standard deviation were 17.70 and 5.20, respectively. Outward manifestations of wrath had an average and standard deviation of 15.23 (SD=3.96). The median and SD for controlling outward manifestations of fury were 21.46 and 4.72, respectively. The average level of fury was 26.83, with a standard deviation of 9.72. These findings were contrasted with those obtained by Promila Devi (2000), who examined 200 college students as a sample. According to Promila Devi's data from 2000, the mean score for suppressing outward manifestations of rage for the total participants for the study were 200mean value 14.05and S.D. of 3.46. Median score for outward signs of wrath was 14.23, and there was a 3.09 standard deviation. With S.D. value 4.22, the median value for restraint in outward expressions of fury was 23.30. The entire expression of wrath yielded similar findings, with a mean of 20.53 and SD of 7.01. Thus, it was discovered when comparing the mean values and standard deviations of Promila Devi's (2000) study on college students that

migraine patients are more likely than college students to suppress their outward displays of rage. Similar conclusions were reached in regards to the management of outward shows of rage. There are four ways to exhibit anger in public, according to a study from 2000 by Promila Devi: full outer expression, respectively, controlled outward expression, outward expression, and suppression of external manifestations of anger. But the average ratings for anger expression in migraineurs were entire frustration expression, restraint for anger expression, suppression of outward anger expression, and then outward anger expression (from high to low). It follows that it is clear that in the case of migraineurs, suppressing external manifestations of rage is more crucial than those manifestations themselves. The specific designed felt amount pain levels as well as perceived severity of migraine attack ratings' means and standard deviations (SDs) were once more calculated. For perceived migraine attack frequency and felt migraine pain severity, the corresponding means were 2.80 and 1.32, respectively.

Table No. 2 Gender-wise analysis for migraine patients on various measures with t-value

Variables	Males		Females		T
	Mean	SD	Mean	SD	
Anger expression-in	15.68	4.65	20.07	4.82	6.53**
Anger expression-out	14.91	3.93	15.59	3.48	1.21 ^{ns}
Anger- control	21.70	5.17	21.17	4.15	0.78 ^{ns}
Total anger expression	24.62	9.15	29.43	9.70	3.59**
Perceived intensity of migraine pain	2.72	1.42	2.90	1.20	1.97 ^{ns}
Perceived frequency of migraine attack	2.17	1.12	2.64	1.01	4.19**

*=Significant at .05 level of significance **= Significant at .001 level of significance ns= non-significant

Male and female anger expression mean values, standard deviations, and t-values were also calculated separately (Table No. 2). For repressing outward manifestations of rage (anger-in), males had a mean score of 15.68 and S.D. 4.65 while females had a score of 20.07, S.D. 4.82 and 6.53 was t-value with significance level was 0.01. Men's mean outward anger manifestation was 14.91 and S.D. 3.93, while women's was 15.59 and S.D. 3.48. With a t-value of 1.21, the outcome was not significant. Men scored on average 21.70 and S.D. 5.17 and women scored 21.17 and S.D. 4.15 for regulating outward shows of anger. A t-value of 0.78 that was not significant was also attained. For total anger expression, mean value for male category was 24.62 while S.D. of 9.15, while women had a mean score of 29.43 and an S.D. of 9.70 and 3.59 was the t-value at the 0.01 level, it was significant. The findings indicated that females displayed more total anger as well as higher degrees of internalized or suppressed anger than males. In terms of controlling anger outwardly (anger-con) and expressing anger outwardly (anger-out), male and female migraine patients were virtually equally split.

Numerous research results concur with these results. There are no appreciable variations between boys and girls in terms of how they experience fury among adolescents and early children, according to Fabes, Eisenberg, (1992); Zahn et. al., (1994). Similar to this, in a research conducted on teenagers, Swaffer and Epps (1999) discovered no significant differences in sensation and expression. A study found that there is a gender differences anger expression in adults, Averill, Stoner, and Spencer (1983), as well as Newman, Grey, and Fuqua (1999), found no evidence of gender differences in any of the six subscales used to

identify the trait anger. The expression of rage, however, has been found to differ significantly between men and women in certain other research (Maccoby et al., 1980).

Males exhibit more rage suppression, according to Lai and Linden (1992), who also proposed that it can be a symptom of a syndrome of unhealthy coping. The repression of actual anger however, maybe a part of a bigger strategy used by women to create and sustain support for social system. Additionally, according to Buntaine et al. (1997), males and girls exhibit rage in quite different ways. In terms of the display of anger, boys reported significantly higher levels of violent responses, whereas women reported suppressing their anger. The reason for this is that social norms greatly influence how we respond to various situations, and since females are more careful regarding social approval, they may adhere to sex-role standards and behave delicately, inhibiting their potential for aggression given their need to fit into a particular gender role. The relatively low amount of hostility frequently displayed by females is therefore a result of their perception that others will find their actions to be socially improper (Richardson, Berstain, and Taylor, 1979).

In this instance, two specifically created variables about migraine headaches were also used in the study. The t-value was also determined for the two migraine indicators of felt pain severity and reported frequency of attacks. Males had a mean perceived migraine severity score of 2.72 and an SD of 1.42, while females had a mean value 2.90 and an S.D. of 1.20. The data were not significant, as indicated by the t-value of 1.97. Men's and women's medians and standard deviations for perceived migraine frequency were 2.17, S.D. 1.12 and 2.64, S.D. 1.01, respectively. The t-value 4.19 with significance level was .01 for it. Therefore, there was no difference between man and women candidates in the form of degree of migraine pain. However, it was discovered that women had much more migraine attacks in a fortnight than men did. There are notable sex-related variations regarding how pain feels, according to certain studies. The latest investigation's findings are also consistent. Even from a young age, gender disparities are noticeable. According to Ginsburget al., 2000, women expressed their discomfort more visibly after noxious stimulation (capillary puncture) than men did. Adults are also said to experience 'pain' differently depending on their sex. Compared to men, women experience chronic pain more frequently and report discomfort in more body locations. According to Unruh (A. M., 1996), women are more prone than men to have issues with visceral pain as well as musculoskeletal discomfort. An experimental investigation on healthy volunteers also showed that, when exposed to high amounts of mechanical pressure, females experience pain that is more intense and results in considerable pupillary dilation than males (Ellermeier and Westphal, 1995).

Additionally, according to clinical research, women experienced higher pain following surgery than men. According to a study that focused to fine the pain severity at one year after surgery (Cepeda and Carr, 2003), women requires assistance with walking, housekeeping including kiryana shopping, they walk only shorter distances. Studies have revealed important disparities between males and females when it comes to migraine discomfort. In comparison to men, women experience migraine discomfort more frequently. According to Lipton, Stewart, and Diamond (2001), the first signs that are noticed in females are that there is a significant impact of hormonal changes in puberty which can worsen during menstruation. Both people reported similar levels of migraine pain. In terms of the frequency of migraine attacks, more females than males reported experiencing migraine attacks. However, no studies specifically investigating gender differences in migraine attack frequency were discovered.

SECTION-2

Analyzing the association between anger expression and migraine was one of the study's main goals. The rage expression was evaluated using Spielberger's anger expression scale. To all 200 trial participants, a specially created checklist for reported pain severity and perceived migraine attack frequency was also given. Table 1 presents the results of the calculation of the Pearson product-moment coefficient of relationship among perceived frequency of migraine attacks, the perceived degree of pain, and the four outcomes on the anger expression scale. Personal, impersonal, desirable, unpleasant, and ambiguous experiences were the five different categories used to categories stressful life situations.

The results are shown in Tables No. 3, 4, and 5, respectively. Additionally, the coefficient of correlation between the study's variables was determined independently for the overall sample, males, and females.

Table No. 3 Coefficient of correlation between perceived intensity of migraine pain and perceived frequency of migraine attacks with other variables for total sample (N=200)

Variables	Perceived Intensity of migraine pain	Perceived frequency of migraine attack
Total anger expression	0.19**	0.26**
Anger expression-in	0.18*	0.32**
Anger expression-out	0.27**	0.23**
Anger-control	-0.11 ^{ns}	-0.06 ^{ns}

*= Significant at .05 level **= Significant at .01 level ns = non-significant

Table No. 4 Coefficient of correlation between perceived intensity of migraine and perceived frequency of migraine attack with other variables for male sample (n=108)

Variables	Perceived Intensity of migraine pain	Perceived frequency of migraine attack
Total anger expression	0.23**	0.10 ^{ns}
Anger expression-in	0.19*	0.10 ^{ns}
Anger expression-out	0.19*	0.07 ^{ns}
Anger-control	-0.12 ^{ns}	-0.07 ^{ns}

*= Significant at .05 level **= Significant at .01 level ns = non-significant

Table No. 5 Coefficient of correlation between perceived intensity of migraine pain and perceived frequency of migraine attack with other variables for female sample (n= 92)

Variables	Perceived Intensity of migraine pain	Perceived frequency of migraine attack
Total anger expression	0.11 ^{ns}	0.37**
Anger expression-in	0.12 ^{ns}	0.45**
Anger expression-out	0.37**	0.42**
Anger-control	-0.07 ^{ns}	-0.084 ^{ns}

*= Significant at .05 level **= Significant at .01 level ns = non-significant

Tables No. 3, 4, and 5 above present the findings of the coefficient of correlation in angry expression, subjective pain severity including migraine attack. Results for the entire sample (Table No. 3) showed a substantial and positive correlation between total anger expression and reported migraine pain intensity r was 0.19 and p 0.01. The reported degree of pain due

to migraine was substantially and favorably linked with both the suppression of outward expression of anger-in and the outward expression of anger-out with r 0.27 and p 0.01. Evidence suggested a substantial and positive correlation with r value 0.26 and p 0.01 between overall level of anger expressed and the reported frequency of migraine attacks. The reported frequency of migraine attacks was substantially and favorably connected with both the suppression of outward expression of anger-in where r was 0.32 and p 0.01 and the outward manifestation of anger-out with r value 0.23 and p 0.01. However, neither the perceived intensity of the pain nor the perceived frequencies of migraine attacks were significantly and favorably correlated with the ability to control outward displays of rage (anger-con). Instead, it had a poor correlation (1.3) with both the frequency of migraine attacks and reported pain severity.

It was also discovered for men the association between a frustrated demeanor and subjective migraine attack occurrence and pain intensity. The results are presented in Table No. 4. A substantial and positive correlation between the overall amount of anger expressed and the perceived severity of migraine pain was discovered with r value 0.23 and p 0.01. The suppression of outward expression of anger-in with r value 0.18, p 0.01 while the outward expression of anger-out with r value 0.27 and p 0.01 were both significantly correlated with the reported intensity of migraine pain. There was evidence that the total amount of anger expressed was significantly correlated with r value 0.26 and p 0.01 with the reported frequency of migraine attacks.

Table No. 5 above displays the results of the computation of the coefficient of correlation between the perceived frequency and intensity of migraines in female migraines. There was only a positive and significant correlation between women's estimates of the severity of their migraine discomfort and outward shows of rage ($r=0.37$, $p.01$). However, it was shown that neither the total level of anger expressed nor the suppression of outward displays of anger had any effect on how intensely migraine pain was felt to be. According to the findings, the perceived frequency of migraine attacks was substantially and correlated with r value 0.37 and p 0.01 with the total amount of anger expressed. Both the suppression of anger and its outward manifestation were significantly correlated with the perceived frequency of migraine attacks with r value 0.42 and p 0.01. In this case, it was found that the reported frequency of migraine attacks was not correlated with the capacity to control outward expressions of rage (Table No.5).

CONCLUSION

As a result, migraine is a significant ailment that has an impact on a person's life. Anger is one of the many elements that affect migraine, among others. It is also evident from the current studies that anger has a function in migraine and is vital in its incidence. In comparison to men, women were shown to express more total anger but also to display it less outwardly, or anger-in. In terms of controlling anger outwardly (anger-con) and expressing anger outwardly (and terms of controlling anger outwardly (anger-con) and expressing anger outwardly (anger-out), male and female migraine patients were virtually equally split. According to the result of whole group there was a significant and positive association between reported migraine pain intensity and anger expression and suppression of external expression of disgust (anger-in) including external expression of anger (anger-out). Reported incidence of migraine attacks was significantly and favorably correlated with the total expression of anger, internalization of anger (anger-in) and anger externalization (anger-out).

However, neither the perceived intensity of the pain nor the perceived frequencies of migraine attacks were significantly and favorably related to the ability to control outward

displays of anger (anger-con). Instead, there was a poor association between it and the perceived frequency and intensity of migraine events.

REFERENCES

1. Abu-Arafeh, I. and Russel, G. (1995). Prevalence and clinical features of abdominal migraine compared with those of migraine headache. *Archives Distribution Child*, 72, 413-417.
2. Abu-Arefeh, L., and Russell, G. (1994). Prevalence of headache and migraine in schoolchildren *British Medical Journal*, 309, 765-769.
3. Alexander, F.G. and French, T.M. (Eds.). (1948). *Studies in psychosomatic medicine: An approach to the cause and treatment of vegetative disturbance*, New York: Ronald.
4. Anderson, C.A. and Bushman B.J.(2002). Human aggression. *Annual Review of Psychology*, 53, 27-51.
5. Antoniazzi, A.L., Bigal, M.E., Bordini, C.A. and Speciali, J.G. (2003). Headache associated with dialysis. The IHS criteria revisited. *Cephalalgia*, 23,146-149.
6. Ashmore, R. D. and Del Boca, E IC. (1979). Sex stereotypes and implicit personality theory: Toward a cognitive-social psychological conceptualization. *Sex Roles*, 5, 219-248.
7. Averill, J. R. (1982). *Anger and aggression: An essay on emotion*. New York: Springer-Verlag.
8. Averill, J.R. (1983). Studies on anger and aggression. *American Psychologist*, 38, 1145-1159.
9. Bag, B. R., Hacıhasanoglu, R. and Tufekci F. G. (2005). Examination of anxiety, hostility and psychiatric disorders in patients with migraine. *International Journal of Clinical Practice*, 59, 515.
10. Baggio, M.K. (1989). Sex differences in behavioral reactions to provocation of anger. *Psychological Reports*, 64, 23-26.
11. Barbara, Grothgar, O. and Berndt, Scholz .(1987). On Specific Behavior of Migraine Patients in an Anger-Provoking Situation. *Headache. The Journal of Head and Face Pain*, 27, 206-210.
12. Barefoot, J.C. (1992). Developments in the Measurement of Hostility. In: H.S. Friedman (Ed.): *Hostility, Coping and Health*, American Psychological Association, Washington.
13. Baron, R.A and Richardson, D.R. (1994). *Human aggression*, Plenum Press, New York.
14. Barratt, E.S. (1972). Anxiety and impulsiveness: Towards a neuropsychological model. In: Spielberger C. (Ed.). *Current trends in theory and research*, Academic Press, New York, 1, 195-222.
15. Bartleson, J.D., Swanson, J.W. and Whisnant, J.P. (1993). Headache associated with chronic use of substances. In: Olesen J, Tfelt-Hansen P, Welch KMA, eds. *The Headache*. New York: Raven press Ltd., 721–727.
16. Berkowitz, L. (1989). Frustration-aggression hypothesis: examination and reformulation. *Psychological Bulletin*, 14, 59-73.
17. Berkowitz, L. (1993). *Aggression: Its causes, Consequences, and Control*, McGraw-Hill, New York.
18. Berkowitz, L. (1994). Is something missing? Some observations prompted by the cognitive-neoassociationist view of anger and emotional aggression. In: Huesman R. (Ed.). *Aggressive Behavior: current perspectives*, Plenum Press, New York. 35-60.

19. Björkqvist, K., Lagerspetz, K.M. and Kaukianen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression. *Aggressive Behavior*, 18, 117-127.
20. Cox, D.L., Stabb, S.D., and Hulgus, J.F. (2000). Anger and depression in girls and boys: A study of gender differences. *Psychology of Women Quarterly*, 24, 110-112.
21. Crick, N.R. and Grotpeter J.K. (1995). Relational aggression, gender, and social psychological adjustment. *Child Development*, 66, 710-722.
22. Funkenstein, D.H., King, S.H. and Drolette, M.E. (1954). The direction of anger during a laboratory stress-inducing situation. *Psychosomatic Medicine*, 16, 404-413.
23. Holtzman, J., Saleh, K. and Kane, R. (2002). Gender differences in functional status and pain in a Medicare population undergoing elective total hip arthroplasty. *Med Care*, 40, 461-470.
24. Promila Devi. (2000). Anger expression and well being: A study amongst college students. MDU,
25. Roht Ramirez, J.M., Santisteban, C., Fujihara T. and Van Goozen S.H. (2002). Differences between experiences of anger and readiness to angry action: A study of Japanese and Spanish students. *Aggressive Behavior*, 20, 429-438.

WEBSITES

1. (<http://www.usdoctor.com/sym7.htm#>).retrieved on 20/07/2010
2. (<http://www.columbia.edu/~am430/headache.htm>). retrieved on 20/07/2010
3. (E-Mail: [mediainquiries @who.int](mailto:mediainquiries@who.int), 2004). retrieved on 20/07/2010
4. (<http://www.umm.edu/>) retrieved on 20/07/2010.