Chronic Tension Headaches: A Critical Analysis of Treatment

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A Critical Analysis of Treatment

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This thesis for honors recognition has been approved for the Department of Nursing.

Director

Date

Reader

Date

Reader

Date
Abstract

Chronic Tension Headaches:
A Critical Analysis of Treatment

Chronic tension headaches are the most prevalent type of pain experienced by Americans and account for over eighty percent of reported pain (Walling, 2002). Although common, understanding the exact etiology of these headaches is unknown. Many pharmacological methods cause rebound headaches and coinciding health problems. Therefore, treatment methods pose a difficult problem. The purpose of this thesis is to explore the combined use of alternative and pharmacological interventions in individuals with chronic tension headaches to improve their quality of life. This is a qualitative study, based on phenomenological research, which describes the lived experience of chronic tension headaches. Three participants were interviewed who have lived the experience of chronic tension headaches and have used pharmacological and alternative interventions. Colaizzi's method was used to generate the themes of triggering, enduring pain, exhausting finances, coping, and discovering alternatives. The participants of the study described living with chronic tension headaches as affecting all faucets of life from working, spending time with friends and family, exercising, and activities of daily living. Complementary and alternative methods were found to be the most effective in managing the pain of chronic tension headaches. Nursing implications for this study include increased support and education regarding different treatment methods as well as appropriate referrals to specialized healthcare professionals. Through gaining an understanding of lived experience of tension headaches, nurses and health professionals can appropriately treat and evaluate such individuals.
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To my Family: Shelley and George Liknes,  
Brice Addison, Erin Addison,  
and Conrad Addison
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Chapter 1

Background

Affecting more than 80% of Americans, tension headaches are responsible for the most common type of pain (Walling, 2002). Although tension headaches are the most common type of headache, they are not well understood. Different theories exist as to the cause of tension headaches, such as chemical changes or tight muscles, but the etiology has not been specifically identified. These headaches are known to produce a diffuse pain radiating from the base of the skull, which can last from 30 minutes to an entire week (Mayo Clinic, 2007). Many individuals present with different symptoms and do not consistently find relief from medications.

With no specific treatment approach for tension headaches, individuals are often dissatisfied with their treatment, and many healthcare professionals become frustrated treating such headaches (Walling, 2002). For many headache individuals, non-steroidal anti-inflammatory drugs or acetaminophen works to relieve chronic tension headaches (Buckley, 2004). Unfortunately, these drugs come with side effects after long-term use. Many chronic headache individuals get rebound headaches from taking these drugs more than two times per week. Also, the long-term effects of taking NSAIDs or acetaminophen result in side effects such as gastric ulcers and dependency (Buckley, 2004). With the high prevalence of chronic tension headaches and lack of effective treatment options, the need for understanding the etiology of this chronic pain is essential.

Tension Headaches

Usually, tension headaches cause radiating pain “in a band-like fashion bilaterally from the forehead to the occiput ” (Brodie & Millea, 2002, ¶ 1). At times they can have
migraine-like symptoms, but are usually described as pressure and tightness affecting both sides of the head or neck with a consistent dull ache. Tension headaches are found to initiate in the middle of the day and can be mild or extremely painful, sometimes causing more pain than migraines (American Academy of Family Physicians, 2005). According to the International Headache Society (2007):

The criteria for chronic tension-type headache includes having headaches for fifteen or more days a month for at least three months; pain that is bilateral, pressing, or tightening in quality and that is nonpulsating, of mild or moderate intensity, and that does not worsen with routine physical activity such as walking or climbing stairs. (Silver, ¶12)

Pathophysiology of Headaches

The cause of tension headaches remains ambiguous and debatable. According to Millea and Brodie, “Current knowledge of the nociceptive (pain receptor) system suggests that the derivative pain of tension-type headaches has a muscular origin” (2005, ¶ 5). Thus, common triggers for these headaches include increased muscle tension in the jaw, neck, shoulder, and face caused by stress, fatigue, jaw clenching, poor posture, eyestrain, environmental stimuli, low platelet serotonin, or food additives (Buckley, 2004). Tension headaches are usually self-treated with over-the-counter medicine, such as non-steroidal anti-inflammatory drugs, acetaminophen, caffeinated products, massage, and chiropractry (Brodie & Millea, 2002). A history of headaches should be examined by the nurse to help diagnose tension headaches as chronic and to differentiate between other headaches. During examination, health professionals need to be aware of continuous analgesic medication use, which can cause rebound headaches, decreased
appetite, nausea, and irritability (Brodie et al.). Although research exists concerning the etiology, no consistent criteria for tension headaches has been proven.

**Chronic Pain**

The aspect of chronic pain encompasses the pain experienced in tension headaches. This chronic pain for individuals with tension headaches is related to impaired comfort, muscle tension, and situational causes, as evidenced by bilateral pain radiating from forehead to occiput and dull aching pain in the temples (Carpenito-Moyet, 2008). Individuals with such headaches usually endure daily pain lasting anywhere from six months to five or more years. Chronic pain is subjective, and the assessment data collected may be based upon the verbal statements of the clients.

Current diagnostic methods have been found to be inaccurate, and tension headaches are frequently confused with other headache types. Numerous nursing interventions for chronic pain apply to assessing and healing chronic tension headaches. For example, determining the effects of chronic pain on an individual's life and ability to function is critical in the diagnosis of chronic tension headaches (Carpenito-Moyet, 2008). Also, providing a plan of prescribed analgesics and non-pharmaceutical pain-relief measures are critical for treatment. Understanding and applying knowledge of chronic pain are vital in finding ways to help treat and better comprehend chronic tension headaches.

**Risk Factors**

There are few risk factors associated with chronic tension headaches mostly because the etiology is not completely understood. Chronic-type headaches are usually featureless and are almost completely based on subjective data from the patient:
Risk factors include obstructive sleep apnea, medications, and excess caffeine intake. Tension headaches must be differentiated from migraine or cluster headache, cervical spondylosis, temporomandibular joint syndrome, caffeine or nonprescription analgesic dependency, depression, head injury, dental disease, brain tumors, chronic sinusitis, hypertension, hypoxia, or temporal arteritis. (Buckley, 2004, ¶ 3)

Tension headaches affect all ages and both sexes. According to Doctor Nicholas Silver in the American Family Physician Journal (2007), tension headaches occur more frequently in women than men (¶ 17). Sixty percent of tension headaches occur after the age of twenty. Also, forty percent of individuals with tension headaches have an associated family history of headaches (Buckley, 2004, ¶ 4).

Impacts

The impacts of chronic tension headaches affect individuals on a macroscopic level. With decreased quality of life and reduced ability to function, individuals with headaches are forced to change their daily roles. The economy incurs losses because of decreased productivity, and increased use of healthcare. Healthcare professionals still have not found a long-term form of treatment to help such individuals. The need for understanding the etiology of tension headaches becomes more apparent with the large affected population.

A study conducted by Schwartz, Stewart, Simon, and Lipton (1998), in association with the American Medical Association, found:

A total of 11.8% of subjects with CTTH reported actual lost workdays due to their headaches; 46.5% reported reduced-effectiveness days. The subjects with actual
lost workdays reported, on average, 27.4 lost workdays each, while subjects with reduced-effectiveness days reported, on average, 20.4 such days per person. (¶ 1) Headaches alone can be a stressor and compromise the well-being of an individual. Many people become frustrated and irritated with chronic pain. Individuals with tension headaches struggle to have the energy and concentration to complete normal tasks (Nash & Thebarge, 2006). Chronic pain not only affects lifestyle factors but also emotional and mental factors. Also daily agendas and work alone can be a task. The quality of life drastically decreases with the onset of chronic tension headaches.

**Psychosocial Impact**

Chronic tension headaches are not only associated with chronic pain but also depression. According to researchers Schwartz, Stewart, Simon, and Lipton, headache individuals had a higher incidence of depression and impaired quality of life compared to those with other pain problems (1998). The individuals suffering from tension headaches were most affected by the chronic pain and thus lost their ability to function normally. When pain leads to depression, the individual’s normal role involuntarily changes. Many people do not take into account how drastically daily tension headaches can affect one’s life. In a recent campaign to understand these headaches, the World Health Organization Global Burden of Disease declared chronic tension-type headaches to be one of the highest disabilities causing pain (Nash, Park, Walker, Gordon, & Nicholson, 2004). Also, when society dismisses such a pain, the individual can be criticized for missing work or not functioning at the appropriate level.
Research Purpose

The purpose of this thesis is to explore the combined use of alternative and pharmacological interventions in individuals with chronic tension headaches to improve their quality of life. Using preventative therapies in conjunction with alternative treatments should be a primary goal for healthcare professionals. In this qualitative study, based on phenomenological theory, individuals with chronic tension headaches were formally interviewed about their experiences with headaches. By gaining an understanding of lived experience of tension headaches, nurses and health professionals can appropriately treat and evaluate such individuals.
Chapter II

Review of Research

This section includes an analysis and brief summarization of quantitative and qualitative studies applicable to the treatment and prevention of chronic tension headaches. The process of critiquing literature is imperative for understanding evidence-based interventions recommended by research. In this review of literature, both complementary and alternative [CAM] therapies are evaluated as well as pharmacological ways to treat tension headaches. Multiple evidence-based studies are further examined that support the use of CAM therapies. Pharmacological interventions are also examined, specifically Venlafaxine XR, tricyclic antidepressants, and dipyrone.

Etiology

The exact etiology of tension headaches is unknown. For many years, researchers believed that tension headaches were caused by muscle contractions in the neck and head related to stress or emotions. With growing research on the tension headaches, researchers question the validity of the aforementioned theory. Using a machine, called an electromyogram that detects muscle activity through electrical currents researcher found that not all individuals with tension headaches have increased muscle tension (Mayo Clinic, 2007). Researchers now theorize that tension headaches are related to chemical changes in the brain, specifically serotonin, endorphins, and other chemicals active in the process of nerve communication. Although there is no certainty, researchers conjecture that the fluctuation in brain chemicals stimulates pain pathways to the brain. The brain cannot suppress such stimulation and thus is unable to inhibit the abnormal pain activation (Mayo Clinic, 2007). Muscle tension may either be the cause of such
chemical fluctuation or the result of the chemical changes.

Two different classifications exist for tension headaches, episodic and chronic. Episodic headaches are brief, lasting 15 minutes to a couple of hours. These headaches occur less than 15 times a month and can cause neck and scalp pain in conjunction with head pain (Mayo Clinic, 2007). Conversely, chronic tension headaches transpire daily and vary in length, occurring more than 15 times per month.

Screening and Diagnosis

A thorough headache history is critical for the diagnosis of tension headaches. The type of pain, location, duration, and frequency are important factors for the health care provider to know (Institute for Clinical Systems Improvement, 2007).

Autonomic features should also be assessed such as tearing, eyelid edema, or nasal congestion. The individual should give descriptive characteristics such as stabbing, dull, aching, pulsating, or throbbing. Factors that cause or relieve the headaches should also be evaluated (Institute for Clinical Systems Improvement, 2007). Also, pharmacological and non-pharmacological treatments that relieve or do not relieve the pain should be discussed.

A focused physical and neurological examination should be performed. Vital signs, examination of extra cranial arteries, sinuses, and muscles as well as neck flexion should be assessed. Computerized tomography [CT] and magnetic resonance imaging [MRI] scans are the two main tests used in the diagnostic process (Mayo Clinic, 2007). The CT scan uses x-rays recorded with the machine to produce comprehensive images of the brain while the MRI uses a magnetic field with radio waves to produce an image. Different activity can be seen and interpreted by a physician.
Another way to help diagnose tension headache is asking the individual to use a headache diary or calendar for at least two months. The headache duration, location, frequency, and interventions used should be recorded (Mayo Clinic, 2007). Keeping record of the headache occurrence is one of the most useful tools in making an appropriate diagnosis.

*Nursing Interventions: Complementary and Alternative Medicine*

Complementary and alternative [CAM] therapies have been found to be very effective in treating chronic pain and helping to decrease the frequency and duration of chronic tension headaches. Acupuncture, therapeutic touch, massage therapy, relaxation and biofeedback have all been found to be beneficial in the treatment of headaches (Rossi et al., 2006).

Researchers suggested that individuals with chronic-type tension headaches seek pain relief through both conventional and alternative therapies. The objective of this descriptive, quantitative study was to evaluate the “rates, patterns, and presence of predictors of complementary and alternative medicine use in a clinical population of patients with chronic tension-type headaches” (Rossi et al., 2006, p. 622). An interview and survey were physician administered to each of the participants. The survey population consisted of 110 individuals with chronic tension headache from the ages of 18-65. Comprehensive information of each patient’s health and headache history was assessed. Participants were asked about their headache diagnosis, medications used, doctors seen (specialists), and other therapies used. The questionnaire also focused on complementary and alternative therapies used by the individuals (Rossi et al., 2006). According to the study, 40 % of the participants had a past use of CAM therapies. Also,
77.3% of the participants used CAM therapies as specific interventions for their chronic tension-type headaches (Rossi et al., 2006).

Over 50% of participants using CAM therapies found relief from headaches. The purpose of this descriptive study was to document women’s use of complementary and alternative treatments, as well as their perceptions about the usefulness of the treatments, and lastly, explore racial difference in uses of CAM therapies (Factor-Litvak, Cushman, Kronenberg, Wade, & Kalmuss, 2001). The participants of the study were 300 women from New York between the ages of 18-80 and from the following ethnic groups: Caucasian, African-American, and Hispanic/Latino women. Data were collected through computer assisted telephone interviewing, in which questions were asked regarding different health problems, commonly used CAM therapies, perceived efficacy of CAM, and racial differences in the use of CAM. According to the results, 57.8% of the participants had used CAM therapies. Racial differences in the use of CAM were minimal, and one third of the women perceived these treatments as effective (Factor-Litvak et al., 2001). This study was based on a pilot study to fill gaps and explore the new uses of CAM therapy. Further studies should be performed with larger sample sizes. Both of these studies implied that CAM therapy had been widely used and should be incorporated into an individual’s treatment plans. Also, physicians and nurses should be aware of individuals’ use of CAM therapies to provide a holistic spectrum of care by combining therapies to help the patient.

Therapeutic touch. A recent research study successfully demonstrated that therapeutic touch was an effective non-pharmacological intervention that both nurses and clients use to reduce pain in chronic tension headaches (MacNeil, 2006). The article
“Therapeutic Touch, Pain, and Caring” investigated whether the method of therapeutic touch helped to reduce pain in adult chronic tension headaches. This article was a descriptive study that used the Rogerian nursing theory to answer the question: does therapeutic touch serve as a useful intervention to decrease pain in chronic tension headaches? (MacNeil, 2006). Pretreatment and post-intervention treatment interviews were used to establish validity and reliability. The study consisted of ten randomly chosen Caucasian females between 18-40 from a chiropractor’s office in southeastern Ontario who all were experiencing tension headaches at the time of pre-treatment (MacNeil, 2006). Two groups were identified who were given therapeutic touch, group one and group two. Group one had a very positive attitude towards trying new treatments and was optimistic about therapeutic touch. Group two was also positive about trying a new therapy, but was more reserved about the treatment working to reduce their headaches (MacNeil, 2006). Six out of the ten participants were without headache pains following the experiment. Therefore, the study implied that nurses could effectively treat tension headache individuals with therapeutic touch as an independent intervention (MacNeil, 2006). Providing care for clients with chronic pain is a critical role in nursing practice and should be used as a key intervention.

Massage therapy. Many different kinds of massage therapy are available for helping to relieve muscle tension. The massage therapist, using hand techniques, manipulates the body’s soft tissue and muscles (Mayo Clinic, 2008b). Massage helps to relieve muscle tension and induces relaxation. Some research studies have found it to be helpful for anxiety, pain, and the immune system. Massage is not recommended for
individuals with burns, recent heart attack, or deep vein thrombosis (Mayo Clinic, 2008b).

Massage therapy was clinically proven to help decrease the amount and severity of tension headaches in individuals. This quantitative study tried to answer the question: What is the effect of massage therapy on individuals with chronic tension headaches? The data showed that a reduction in all participants’ headaches occurred within the first week of treatment, and also the mean number of headaches reduced from 6.8 to 2.0 during the treatment (Quin, 2002). Ten nonsmokers between the ages of 18 and 55 who had experienced at least 2-3 headaches a day were selected through fliers and newspaper ads (Quin, 2002). The study took place over an eight-week period in which the participants received one 30-minute session of specific massage each week. Participants recorded frequency, intensity, and duration of headaches in a journal. A Fisher Post Hoc test was used to identify changes in headaches. The results of this study implied that massage therapy was an effective non-pharmacological treatment for tension headaches. This study had a complicated design, with different types of massage used. Thus the results may be related to one or all of the massage types. Also, this study was too small. More research and larger samples needs to be performed in order to validate the study’s claims.

In support of massage therapy, a study was conducted measuring the pericranial muscle tenderness of individuals with headaches (Lipchik, 1996). Researchers found that individuals with chronic tension headaches had much higher levels of tenderness compared with a control group and a migraine group. In this study, 112 females participated who met the International Headache Society criteria for migraines, tension-
type, and episodic headaches. To measure pericranial tenderness, researchers used both manual palpation and Beckman bipolar electrodes to measure the amount of pericranial muscle tenderness (Lipchik, 1996). To analyze the results, researchers used the ANOVA test for analysis of variance. Researchers found that 90% of chronic tension headache participants exhibited a reduction in tenderness in their evaluations. Although the groups' results differed significantly, the greatest difference of tenderness was between the tension headache participants and the control group (Lipchik, 1996).

The pericranial muscle tenderness study helped to link the usefulness of massage for chronic tension headaches. This article gave a better understanding of possible etiologies of tension headaches and treatments. Massage therapy can be administered to help reduce pericranial muscle tenderness and thus reduce tension headaches. Massage therapy should be explored and possibly administered by nurses for clients suffering from chronic tension headaches.

*Relaxation.* Many different techniques are used to invoke relaxation, such as deep breathing exercises, progressive muscle relaxation, or meditation (Sierpina, Astin, & Giordano, 2007). These different methods can help to reduce sympathetic arousal and release tension in the body. For tension headaches, progressive muscle relaxation has been found to be effective.

Nurse-administered relaxation therapy helped to significantly reduce the severity and frequency of chronic tension headaches (Larsson & Carlsson, 1996). A school-based program administered to children between the ages of 10-15 was implemented in three German schools. Twenty-six students participated and were randomly assigned to either a relaxation-training group or a non-treatment group. Three nurses administered twenty-
minute relaxation therapy sessions to students who met the International Headache Society criteria of chronic tension headaches two times a week for five weeks. The students were required to keep a headache journal and record the intensity and frequency of their headaches (Larsson & Carlsson, 1996). Using the Turkey’s Post Hoc test to analyze the data, researchers found that pupils who were administered relaxation therapy significantly improved with a p-value of p<.05 unlike the non-treatment group. With a six-month follow up study, 69% of the treatment group reached a clinically significant improvement in comparison to 8% of the students without treatments (Larsson & Carlsson, 1996). With such significant results, future programs implemented into schools would be beneficial for students. National guidelines for the treatment of chronic tension headaches also support the use of relaxation therapy. The Institute for Clinical Systems Improvement recommends repetitive sessions with breathing exercises and other relaxation therapies to reduce headache frequency (2007).

Nursing implications for relaxation therapy include both education for the general public and nurses. Nurses are at the forefront of relaxation and have the ability to administer appropriate programs. Nurses can use relaxation therapies from breathing therapy to imagery as helpful and effective nursing interventions.

Licensed Professional: Complementary and Alternative Therapies

Most complementary and alternative treatments require that certified practitioners administer the therapies. Multiple degrees exist in naturopathy, acupuncture, and biofeedback that require different amounts of schooling and clinical hours.

Acupuncture treatment. Originating in China, acupuncture has been practiced for over 2000 years. This practice is a part of traditional Chinese medicine thought to have
existed in the Xia Dynasty between the years of 2000 to 1500 BC (Zhao, Stillman, & Rozen, 2005). The first described account of acupuncture was recorded in The Yellow Emperor's Classic of Internal Medicine, in which the emperor recorded information about medicine from his minister, Chi-Po (Ernst & White, 2004). During the Middle Zhou period from 772 to 480 AD, the field of medical theory began to increase and more specifically, the theory of the Six Environmental Evils was formed. Hot, cold, wind, rain, darkness, and brightness were all thought to be etiologies of disease (Fishman, 2006). The basis of acupuncture is grounded in the six environmental causes of disease, in which acupuncture strives to cure and prevent.

Unlike western medicine, Chinese medicine treats pain as a disease instead of just a symptom. There are multiple elements that provide the foundation for understanding the mechanisms of acupuncture. The underlying idea of acupuncture is to reestablish balance. The concept of balance emerges from Yin and Yang. In traditional Chinese medicine, Yin and Yang are paradoxical forces, which create balance in the body and the world (Fishman, 2006). These are inseparable forces that can only exist together. An example explaining Yin and Yang comes from a Chinese medical textbook:

Yang has its root in Yin, Yin has its root in Yang. Without Yin, Yang cannot arise. Without Yang, Yin cannot be born. Yin alone cannot arise; Yang alone cannot grow. Yin and Yang are divisible but inseparable (Fishman, 2006, ¶ 4). The theory of Yin and Yang reinforces that good health requires a balance in both Yin and Yang for the body to properly function. When Yin and Yang are in balance, the person has achieved healthy qi, the life energy that circulates through the body.
Qi and blood together circulate through the body and pass through channels called meridians and collaterals (Eshkevari, 2003). These channels are interconnected throughout the body and serve organ systems called Zang-Fu. Through Zang-Fu, meridians “transport qi and blood, regulate yin and yang (the balance of the body), resist pathogens, and reflect signs and symptoms such as pain” (Eshkevari, 2003, ¶ 1). Ultimately, meridians and collaterals interconnect the body tissues and organs as an entire unit. Thus, if there is a disturbance in the meridians, the qi in addition to Yin and Yang will be interrupted. Acupuncture is therefore aimed at monitoring the flow of qi in the meridians and strives to achieve the balance between Yin and Yang.

Scientifically speaking, acupuncture increases the release of endorphins and helps to alleviate pain by producing an analgesic effect (Myatt, 2005). According to Kawakita and Okada, “Acupuncture analgesia is the result of physiological and neuropharmacological processes induced by afferent inputs excited by acupuncture, and the participation of various endogenous opioids and their receptors in EAA has been widely accepted” (2006, ¶ 4). In the central nervous system, multiple endogenous pain inhibitory systems exist which various nerves carry impulses to. Acupuncture activates the previously mentioned systems and thus produces an analgesic effect. Also, using electro-imaging, changes in electromagnetic conductivity have been recorded (Myatt, 2005). Such changes increase the production of endorphins and help increase the immune system. Although acupuncture has been found to produce analgesic effects, controversy exists over how effective the specific placement of needles is.

In a recent study that examined the effects of specific acupuncture versus sham acupuncture or nonspecific placement of needles, researches found no significant
difference between the treatments. Both types of acupuncture were clinically found to “produce complex brain changes in areas connected with pain transmission and reception” (Campbell, 2006, p. 120). This evidence suggests that acupuncture is effective, but the placement of the needles does not have a significant effect on client responsiveness.

Before the process of acupuncture delivery begins, a thorough background and history must be collected on the individual. Usually specific acupoints are recognized which are causing the body maladies (Fishman, 2006). These points are identified and then focused on during acupuncture.

Although different kinds of acupuncture exist, the initial insertion of the needle remains the same. Sterilized small needles are inserted into the skin along key points aimed at disturbed meridians or channels in the body (Myatt, 2005). Usually, there is minimal pain associated with the actual insertion of the needles. Different sites may be used for needle insertion depending on the individual’s diagnosis. When the needles are inserted, the acupuncturist gives the needle a quick turn to help the flow of qi and activate the release of endorphins. At times, needles can be heated by burning mugwort, a dried herbal substance on or over the needling area (Myatt, 2005). This procedure helps the healing process of the body by driving the heat into the meridians.

Acupuncture has many benefits with minimal side effects. Acupuncture has been clinically proven to increase endorphins and thus produce analgesia. Using both blood serum levels and magnetic resonance imaging, researchers have found an increase in endorphin substances and also a decrease in brain activity after the use of acupuncture (Eshkevari, 2003). In multiple studies β-endorphins have been found to be released upon
acupuncture and thus are indicated as the mediator of analgesia. Adrenocorticotropic (ACTH) immunoreactivity, which stimulates the release of cortisol from the adrenal glands, is also found to be released upon acupuncture. Also, ACTH has been linked to the release of endorphins (Eshkevari, 2003). Acupuncture works as an effective analgesia for pain, especially chronic pain as indicated by the body systems that are stimulated.

In addition to analgesia, another benefit of acupuncture is its safety level. One study analyzing the safety of acupuncture interviewed 652 acupuncturists. Researchers concluded that acupuncture is a very safe treatment, and the risks associated are negligible (White, 2006). Also, of the millions of needles used in the U.S., only 50 cases of complications have been recorded in medical literature. A study consisting of 66,000 consultations from the United Kingdom found no serious or adverse complications of acupuncture. Problems recorded by practitioners in this study consisted of fainting, prolonged exacerbation of symptoms, slurred speech, and pain at the insertion site (White, 2006).

A certified physician or acupuncturist requiring four years at an acupuncture-specific school should perform acupuncture. The American Board of Medical Acupuncture requires 200 hours of didactic and clinical experience in addition to 500 medical acupuncture treatments and passing the board exam (Zhao, Stillman, & Rozen, 2005). Nurses should not give acupuncture unless they have been legally certified. Nurses can suggest the option of acupuncture especially to patients who have chronic pain and those who do not respond to pharmacological treatment. Acupuncture can also be used with pharmacological treatments and has few adverse side effects. Nurses can help clients gather information about their chronic condition and personal background to give to the
acupuncturist. Nurses play a vital role in informing clients of their options for both pharmacological treatments in addition to alternative and complementary medicine.

In a study devised to reduce chronic headache pain, headache frequency was reduced by over 50% from the baseline (Melchart et al., 2006). The purpose of this observational study was to determine the efficacy and outcomes of acupuncture on people with headaches. A total of 2202 individuals participated in the study that had used acupuncture for their migraines or tension headaches. These individuals were selected to take a detailed questionnaire, which examined headache frequency before and after acupuncture, as well as the participant’s quality of life. Out of the 2202 participants that responded, 52.2% of them reported a 50% decrease in headaches after the acupuncture (Melchart et al., 2006). One limitation was that the study was observational instead of experimental. A double blind experiment with placebo would help to validate the results and eliminate bias. Although limitations exist, this randomized sample illustrated the usefulness of acupuncture for treating headaches.

Another study performed by the same researchers found a significant reduction of headaches after application of acupuncture (Melchart et al., 2005). This study consisted of 270 participants with episodic or chronic tension headaches. After four-weeks, a baseline was established; participants were randomly assigned to three different groups. The three groups include the following: specific acupuncture, minimal acupuncture or sham acupuncture, and no acupuncture (Melchart et al., 2005). For twelve weeks, each group kept journals of headache frequency and the effects of acupuncture. The results were based off the SOLAS 3.0 program to measure primary outcomes in relation to the recorded baseline (Melchart et al., 2005). In both the specific acupuncture and the sham
acupuncture, the number of days with headaches decreased. Specific acupuncture decreased the number of days with headaches to 7.2 in comparison to the sham group at 6.6 days (Melchart et al., 2005). With insignificant difference between the two acupuncture groups, the study suggested that specific acupuncture and sham acupuncture make no key difference. Thus, any form of acupuncture could serve as an effective intervention, which was more effective than no treatment at all.

In support of acupuncture, the Council of Acupuncture and Oriental Medicine [CAOM], stated that acupuncture “is one of the most conservative, least invasive, and safest types of health care” (2004, p. 111). Guidelines used for acupuncture recommend that for the first eight weeks, two treatments should be given weekly and then a reduction based on the individual’s response to therapy. Assessments should continually be performed to determine the treatment course and effectiveness of the therapy (CAOM, 2004).

Although acupuncture is relatively safe, rare risks are present. Minor risks of feeling tired, exacerbation of symptoms, bruising, and bleeding may occur. More severe risks include seizures, pneumothorax, and broken needles (Myatt, 2005). Pneumothorax is very rare, especially because acupuncture needles should not be long enough to puncture the lung lining. Overall, side effects and risks are kept to a minimum. Nursing implications include the importance of education about alternative options for treating chronic tension headaches.

Biofeedback. Biofeedback is an alternative and complementary therapy designed to help use the mind to control the body. Biofeedback professionals use specialized equipment to help teach individuals how to control their body responses such as blood
pressure, muscle tension, skin temperature, or heart rate. Using biofeedback can potentially eliminate medication use, decrease medical costs, and educate individuals about their bodies and its response to certain stressors (Mayo Clinic, 2008a). Biofeedback takes 30 minutes or longer depending on the individual’s response. Sensor monitors are applied to the skin and hooked up to a biofeedback monitor machine. The sensors monitor the individual’s physiological response to stress or stimuli (Mayo Clinic, 2008a). For example the machine will monitor muscle contractions during a tension headache. Then, the machine will send the individual stimuli such as a flashing light to recognized muscle tension. Eventually the individual recognizes the tense muscle and works towards relaxing those muscles. Four different types of biofeedback exist: electromylogram, temperature, galvanic skin response, and electroencephalogram (Mayo Clinic, 2008a). The electromyogram is the main biofeedback therapy used for headaches and back pain. It uses electrodes to measure muscle tension. The main focus is to help those tensed muscles to relax and release.

Relatively few risks were associated with biofeedback. People with depression, psychosis, or other mental health issues should refrain from using biofeedback (Mayo Clinic, 2008a). Biofeedback was also not recommended for people with diabetes or taking insulin.

Although many barriers were indicated for people living in rural areas, biofeedback therapy was viewed as a beneficial non-pharmacological therapy for tension headaches (Peters & Stepans, 2001). In a qualitative study exploring rural women’s perceptions of biofeedback, researchers found that “travel, lack of knowledge, skepticism, lack of referral by health care provider, time, couldn’t relax, and pharmacologic therapy was
already working” (Peters & Stepans, 2001, p. 9), as barriers to receiving biofeedback for rural communities. One of the most impacting barriers affecting the women’s perception of biofeedback was lack of education. Of the nine women interviewed, five did not know how biofeedback worked and were fairly skeptical about its helping their headaches. However, the women who had experienced biofeedback reported it was a natural way to treat headaches without having to put chemicals in the body and biofeedback contributed to relaxation and a decrease in pain levels (Peters & Stepans, 2001).

Although this was a small study, the results indicated that nurses can help inform individuals with tension headaches about biofeedback. According to the National Guidelines for Headache Treatment, biofeedback has been found effective as an adjunctive therapy for headaches (Institute for Clinical Improvement, 2007). Education is a key factor in helping people understand how biofeedback works and also referral to a biofeedback specialist will help increase the general public’s awareness. Nurses can become certified with biofeedback if trained at an institute. In the future, the study should be replicated with a larger sample and a questionnaire should be used regarding the barriers and benefits of biofeedback in urban and rural areas.

**Medication and Preventative Therapies**

Many different over-the-counter drugs are used for chronic tension headaches in addition to prescribed medications. For acute therapy, analgesics such as acetaminophen and nonsteroidal anti-inflammatory drugs are used to treat headache pain. Low doses should be used and limited to twice a week. Overusing these medications can cause rebound headaches, which continually trigger the headaches. Individuals should be aware that medications do not cure headaches; they treat the symptoms. Also, medications can
Tension Headaches

have harmful side effects and affect other body systems. Life style changes may need to be made in order to cope with chronic tension headaches.

Venlafaxine XR. The use of Venlafaxine XR as a prophylactic treatment has been found to treat tension headaches and migraines (Aldelman, Aldelman, Seggern, & Mannix, 2000). The purpose of this study was to evaluate the effectiveness of Venlafaxine XR as a prophylactic treatment for headaches. Venlafaxine XR is a selective serotonin-norepinephrine reuptake inhibitor antidepressant (Aldelman et al., 2000). In the study there were fifty-six individuals with chronic tension headaches and 114 individuals with migraines. Most of these individuals did not respond to other preventative treatments available. The participants were prescribed Venlafaxine XR for 6 months with an average does of 150 mg (Aldelman et al., 2000).

Data were collected through scheduled visits to the participant’s health care provider. At the time of visit, the frequency, severity, duration, and side effects were recorded and analyzed by the physician. The average number of headaches was compared with the recorded baseline “using the Student t test for paired data, with the Bonferroni correction for multiple comparisons” and data analysis was performed using STATA, version 6.0. (Aldelman et al., 2000). The Bonferroni correction test was both valid and reliable as indicated by the consistency of the results of different groups. In the chronic tension headache group, the mean occurrence of headaches was significantly reduced from 24 to 15.2 per month with a p-value of P<.0001. The migraine group also had significant results in which the mean frequency fell from 16.1 to 11.1 per month with P<.0001 (Aldelman et al., 2000). Such results indicated that Venlafaxine is effective on both migraines and chronic tension-type headaches at a statistically significant level.
Prophylactic treatment is ideal for chronic tension-type headaches. According to the National Headache Foundation guidelines, frequent headaches such as chronic tension-type headaches should be treated with preventative measures (Ward, 2004). Many different drugs exist for prophylactic treatment depending on the signs and symptoms of chronic tension headaches. The drugs should be started out on low doses and continued until a therapeutic level has been achieved (Ward, 2004).

Limitations in this study included two factors, lack of placebo and lack of a double blind study. This study should be replicated on a larger population basis with more specific entrance criteria for participants, and a placebo should be used. Implications for nursing practice include assessing clients on Venefaxine for effectiveness of the drug, side effects, and education about the drug.

*Tricyclic antidepressant.* Tricyclic antidepressants are the most common medication used for the prevention of chronic tension headaches (Mayo Clinic, 2007). These drugs work by controlling fluctuating chemicals such as serotonin and endorphins. Possible side effects to be aware of include drowsiness, dry mouth, blurred vision, confusion, and weight gain. Tricyclic antidepressants are often paired with other therapies to help tension headaches (Mayo Clinic, 2007).

A combination of tricyclic antidepressant amitriptyline and stress therapy was found to significantly reduce headache activity in 64% of participants (Holroyd, O’Donnell, Stensland, Lipchik, Cordingley, & Carlson, 2001). Participants in this double blind placebo study were recruited from practice referrals and advertisement. After completing a baseline with headache journals, 203 participants were assigned to four different treatment groups: tricyclic antidepressant, placebo, stress management and
placebo, and lastly tricyclic antidepressant and stress management (Holroyd et al., 2001). Each participant attended clinic visits and kept a regular journal of headache frequency and amount of analgesics taken with assigned therapy for eight months. All of the treatments were found to improve and lessen headaches except the placebo group. Combined therapy of the tricyclic antidepressant and stress therapy was most effective in reducing the headaches with greater than 50% reduction in headaches. Amitriptyline was next for effectiveness, and with a p-value of .006 was shown to reduce headaches in 38% of the participants (Holroyd et al., 2001). The results provide empirical data for the use of both combined therapy to treat headaches and the effectiveness of amitriptyline as a headache medication. The national guidelines for headache treatment suggests that new medications should be started at low doses, and efficacy of the drug and adverse effects should be recorded (Ward, 2004). Also, antidepressants can take up to six months to be successful at decreasing headaches.

Primary nursing implications from this study suggest that combined therapy would be an effective way to treat individuals with headaches. Education about drugs, side effects, and alternative therapies are essential interventions of the nurse.

Dipyrone for acute primary headaches. Dipyrone has been found in multiple clinical studies to be effective for managing tension-type headaches. In a Cochrane review of literature for dipyrone, researchers’ objectives were to determine the efficacy and safety of the drug. Three authors viewed studies and analyzed results of research that used double-blind randomized trials with high quality methodology (Ramacciotti, Soares, & Atallah, 2007). Four main studies were analyzed that included 636 adults. In the largest trial of 356 adults, diapyrone was found to be significantly more effective than a
placebo for pain relief (Ramacciotti, Soares, & Atallah, 2007). The remaining studies also found the drug to be statistically significant for reducing pain in tension headaches. Evidence from these studies demonstrated the effectiveness of diapyrone as a useful drug which has been used in many countries with minimal side effects. However, dipyrone is outlawed in the United States because of a rare severe side effect of agranulocytosis, a life-threatening blood disorder (Ramacciotti, Soares, & Atallah, 2007).

Currently, there is a study underway in Latin America to further research the side effects of dipyrone (Ramacciotti, Soares, & Atallah, 2007). The risk of agranulocytosis continues to be researched, and other countries using dipyrone should keep records of the occurrence of agranulocytosis. Nurses should be aware of clients using this medication, especially from other countries and should be educated on the potential side effects.

*National Guidelines for Treatment*

The treatment for chronic tension headaches involves both medication and alternative therapies for acute and inpatient settings. The diagnosis of chronic tension headaches must first be established before any treatment can be given. Many people present with different signs and symptoms especially if their headaches are rebound headaches caused by the overuse of medications. According to the National Headache Foundation, diagnostic categories of chronic daily headache include constant, daily but not constant, secondary, and primary (Ward, 2004). Chronic tension headaches fall under the category of daily but not constant. Secondary causes such as sinus disease, temporomandibular joint syndrome, cervicogenic, and intracranial hypertension must be ruled out before the treatment plan can be established (Ward, 2004). In the outpatient or acute setting, many headache individuals can be treated with analgesics such as NSAIDS,
aspirin, and acetaminophen. Individuals should limit their intake of the afore-mentioned medications to 2-3 times per week (Ward, 2004). Unfortunately if the patient becomes dependent on analgesics for pain control, rebound headaches may occur, as previously mentioned, which may result in continuation or worsening of the headaches.

For inpatient treatment, the goal is to focus on correcting medication overuse to help headaches. Medicines such as metoclopramide, neuroleptics, and valproate have been used intravenously with clients whose headaches are intractable. Other less common treatments that have been used include trigger point injections, nerve blocks, and botulinum injections (Ward, 2004).

In an evidence-based study, the importance of pain management for chronic headaches was established studying inpatient headache settings. People that are admitted to inpatient settings usually fall under the diagnostic criteria from the national headache foundation guidelines of prolonged headaches accompanied with nausea and vomiting, pain, failed outpatient detoxification, and severe dehydration (Freitag, Lake Lipton, Cady, Diamond, & Silberstein, 2004). Although hospitals have different protocols, most follow the guidelines of intravenous therapy, constant nursing care, and appropriate coordination and management specific to the patient. Collaborative medical interventions include the following: detoxification, pharmacological therapy, nursing interventions, physical therapy, dietary management and education, stress management, biofeedback, relaxation, and group therapies (Freitag et al., 2004). Establishing an appropriate pain management protocol is an important nursing intervention in helping clients manage headaches. Also, educating both the patient and family members on understanding the
headache problem is essential for implementing a successful nursing care plan and program.
Chapter III

Methodology

This section includes a description of how research was conducted. Research must be conducted properly in association with an Institutional Review Board. A phenomenological approach was used for the design with three participants. Indepth interviews were used to collect data and the Colaizzi’s method was employed. All participants were confidential and unidentifiable.

Design

A phenomenological approach was used in this study. The approach of phenomenology is a type of qualitative research which explores the essences of human experiences, in this case pertaining to the experience of chronic tension headaches.

“Phenomenology is both a philosophy and research method that explores and describes everyday experience in order to generate and enhance the understanding of what it means to be human” (Russell, 1999, p. 220).

Phenomenology uses an indepth perspective viewing humans as participants and subjects rather than mere objects or quantifiable evidence. The lived experience is a term phenomenologist use to describe the experiences an individual has, with a focus on meaning of the experience rather than the experience itself. With the aim of gaining a deep understanding of human experience, “the research question in phenomenology is always, ‘What is the experience like?’”; furthermore, “the goal of phenomenological research is to develop rich, full, insightful descriptions of the lived experience” (Russell, 1999, p. 224).
Participants

Three women participants who have lived the experience of chronic tension headaches and have used pharmacological and naturopathic interventions were selected. All three women ranged in age from 28 to 65. The participants have lived the experience of chronic tension headaches for many years. Participants were able to communicate in English and illustrate that they were reliable sources to use. The participants were recruited through word of mouth and by flyers hung up at local naturopathic clinics and chiropractic clinics throughout the community of Helena, MT. The participants contacted researcher via e-mail and phone from contact information on flyers. This was a voluntary study and confidentiality was maintained through obtaining informed consent.

Protection of Human Subjects

Data collected was not analyzed with the volunteer’s names. Participants were identified with a pseudonym. Records were kept confidential and identifiable information was not included in study. All tangible research such as audiocassette tapes and written interview responses were locked in a drawer and destroyed after the research was completed. Researcher was NIH certified on April 16, 2009 and the IRB committee approved the researcher’s ability to perform research.

Data Collection

Data was collected under the research method of phenomenology. The purpose of this research was to gain a deep understanding of the lived experience among people living with chronic tension headaches. The research explore the effectiveness of combined use of homeopathic and pharmacological interventions. Under the method of phenomenology, Colaizzi’s method will be used, in which three volunteers who have
lived the experience were studied. Data collection was generated through audiotape in-depth, lengthy, and repeated interviews to facilitate full descriptions with the three volunteers (Russell, 1999). Volunteers were asked questions regarding their knowledge of chronic tension headaches, treatment methods, and how having headaches has hindered their quality of life. Specific questions include the following: How long have you experienced your chronic tension headaches? In what ways does this disease affect your daily life? What type of treatment methods have you used to try and resolve your headaches? Tell me about the effectiveness of these? Have you ever kept a headache journal? What type of conclusions or patterns did you find about your headaches? Tell me about how your headaches affect your social life, family life, or career. How do you cope with your headaches? What type of medications do you take for your headaches? What type of medications have you tried in the past? How have they been effective or not effective? If any, what type of naturopathic interventions have you used? How have these interventions been helpful? What type of changes have you seen, if any?

Data Analysis

A description of living with chronic headaches was generated including different treatment methods used. Data was analyzed using Colaizzi's method which required using two to ten persons who have lived the experience under study with data generation through lengthy and repeated interviews: (a) Describe the lived experience under study, (b) Collect participant descriptions of the lived experience, (c) Read all participants' descriptions of the lived experience, (d) Extract significant statements, (e) Articulate the meaning of each significant statement, (f) Aggregate the meanings into clusters of themes, (g) Write an exhaustive description, and (h) Return to participant for validation
of the exhaustive description. Incorporate any new data revealed during validations into a final exhaustive description (Russell, 1999).

Once the interviews were completed, the researcher read through the transcribed data to find meaning about the lived experience. After reading through each interview three times, the researcher formulated six themes that were present through all three interviews. The researcher contacted the three participants after the themes were generated to make sure the data was accurately portraying the lived experience of chronic tension headaches.

**Bracketing**

Bracketing is the “identification of any previous knowledge, ideas, or beliefs about the phenomenon under investigation” (Russell, 1999, p. 219). Bracketing helps to eliminate biases that may influence the results of the study.

The researcher’s interest in the lived experience of chronic tension headaches and treatment methods originates from her own individual experience of being diagnosed with such headaches. The researcher has lived with chronic tension headaches for six years and has tried to treat them using many different methods. Because of her personal tie with chronic tension headaches, the researcher acknowledges that she does have some partiality concerning living with chronic tension headaches.

**Limitations**

This research study had a few limitations regarding size and location. The study only focused on three individuals, which represents a very small population. Also, the study took place in a smaller rural area. A larger metropolitan area may have illustrated
different results. In the future a larger sample size would be more beneficial to collecting data.
Chapter IV

Results

This research was initiated to develop a profound understanding of the lived experience among individuals with chronic tension headaches. The participants of the study described living with chronic tension headaches as affecting all facets of life from working, spending time with friends and family, exercising, and managing certain activities of daily living. All three of these individuals felt discouraged and hopeless regarding pharmacological treatment of their headaches. Participants felt that health care professionals did not believe their symptoms or aid in finding an appropriate treatment. Complementary and alternative methods were found to be the most effective in managing the pain of chronic tension headaches. Colaizzi’s method was used to generate five themes, which will be discussed in further detail: triggering, trying medications, coping with pain, affecting daily living, exhausting finances, and discovering alternatives. The participants were labeled with pseudonyms to protect confidentiality.

Triggering

With the lack of evidence related to the etiology of tension headaches, diagnosis for health care professionals becomes a difficult challenge. Health care professionals rely on subjective information the clients provide related to the triggers of their headaches. Participants defined triggers as stimulus provoking the onset of a tension headache. Participants with chronic tension headaches also relied on identifying triggers to both prevent and treat their headaches. Multiple triggers among the three individuals were identified and thoroughly discussed.
Stress. Stress was a major component of triggering identified by all three participants. When Joanna was questioned about when her headaches began, she commented, “With all the stress, my headaches started last year. I have had a lot of stress, mentally and physically from my job. I think that is where a lot of my headaches occur.”

Katie also identified stress as a trigger of her headaches. Leading a very busy life with three kids, Katie stated,

When it is busy I feel like I am constantly going. I have a young family that requires much of my time. My favorite thing to do is to just sit down and read a book or exercise. Unfortunately, I cannot just stop and do those things. Stress does aggravate my headaches, I feel like I just don’t stop sometimes.

Not only did stress aggravate Katie’s headaches, it also decreased her ability to function. When she had periods of high stress, her headaches easily increased to four or five a day.

As with Katie, stress increased Molly’s headaches drastically as well. Molly suggested that her way of coping with stress was internalizing, “I am a very quiet person. I always take everything inside, so I will get headaches from stress, because I internalize.” Having three kids and running her own business brought about daily stress for Molly. She felt that her busy life was her choice and so she must cope with the stress that she brought on herself in a quiet way. Molly also commented about stress causing migraines. When her stress reached a certain limit, instead of getting tension headaches, she will get incapacitating migraines.

Lights. Different kinds of lighting served as triggers for all three of the participants. For Katie, working as an RN on a labor and delivery unit, lights affected her headaches and work performance. According to Katie:
Lights really are a trigger for me. It's when I am sitting at the computer with florescent lights, that both the computer screen and lights give me headaches.

Sitting at the computer I really have to focus on body mechanics because these computer screens with the lights cause me to get headaches all the time. If I am busy with labor, where the rooms are nice and dark, and I am busy, I have a lot better body mechanics than sitting at a computer.

Joanne also identified lights as a trigger especially at work. Joanne works many hours at a sheriff's office in front of the computer: “Most of the time I don’t leave the room. I work eight-hour shifts, which in itself makes my headaches worse. I have to turn down the lights so my headaches don’t get worse.” Joanne also commented that when she gets “migraines or really bad tension headaches,” lights drastically affect her.

When asked about lights as a trigger, Molly stated that lights were an unexpected trigger. She noticed that she would get headaches on one side of her head, “It would ruin my vision for only a few hours; after that a severe headache would stay with light sensitivity.” At random intervals Molly noticed that florescent lights would cause her headaches: “Sometimes I catch the glare from a mirror; it will cause a reaction, which triggers a headache or migraine. I don’t know what that triggers in the brain and what the brain releases chemically.” Confused as to why light trigger her headaches, Molly gets frustrated and tries to avoid florescent type lights and mirrors.

Allergies. Allergies were a major triggering factor identified by Molly. She investigated and gathered her own research to identify foods and scents that triggered her headaches. Molly stated that specific sugars affect her headaches:
I have found that artificial sweeteners, like fructose, splenda, aspartame, xylitol, and sorbitol drastically affect me. Even the ones that have a natural base, I did my research and found that one of them is a pesticide base and aspartame is a formaldehyde base. Even with scented candles or with anything artificial, it can trigger a migraine or headache, because it is formaldehyde-based perfume.

When asked how she identified her allergies, Molly responded:

More from daily patterns. I will go into a store and get a headache and notice a certain scent. Objects like rubber balls with latex or jelly shoes will give me headaches. I found that out in the emergency room about fifteen years ago from a latex glove. I itched my lip and oh my gosh! It swelled up immediately and I got a headache right away. The doctor said that I must have a latex allergy.

*Identifying patterns.* Patterns helped patients to identify triggers and be prepared for the possible onset of their headaches. Many different patterns were identified regarding the occurrence of headaches throughout the day. Katie found that her headaches occurred more in the afternoons and evenings than the mornings. Joanne also stated that her headache occurred at different increments throughout the day:

For me they can occur all day sometimes and just in the afternoons other times.

On the chiropractic screen, I have black lines out of my neck and shoulders, which means both my muscles and nerves are too tight and not working correctly.

Joanne also found that “a combination of stress and physical and medical problems lead to headaches.” When her stress was high, she knew she needed to be prepared to treat her headaches.
Molly identified her family having a history of headaches and migraines as a pattern. According to Molly, headaches run in her family:

Well, my dad had histamine headaches and migraines. They were bad for him, too. Also, one of my sisters and one of my brothers get them. My brother really has a high stress job, so I am sure stress plays a part in his migraines.

She found no specific pattern as to when her headaches and migraines occurred besides being possibly genetic or related to stress.

*Trying Medications*

Each participant defined trying medications as using medications in the attempted relief of headaches or migraines. All three women had different experiences with multiple medications.

When asked about medications, Katie commented that she had used a few different kinds:

My headaches never really go away with Tylenol or Ibuprofen; though I still take them, they might lighten it a little. If it doesn’t get better, the headache turns into a migraine. And if I do get a migraine, I take Maxol, a migraine medicine.

Joanne also chose not to take Ibuprofen, but used Tylenol at night to help her sleep when she had headaches. The medications Joanne tried to use when she had migraines caused her to feel “hot and like too much blood” was rushing through her head.

Molly also did not find any many medications that helped to relieve her headaches. Even back when she was five years old, Molly stated:

The doctors couldn’t find anything that could help control them when I was younger either. Since then I have gone back to different doctors and they have
prescribed different meds. But, honestly they didn’t help and I didn’t like the way they made me feel. No medications have really actually taken away the headache or prevented the pain.

Although trying many medications, Molly has only found more pain and uneasy feelings from the medications.

*Affecting daily living*

Chronic tension headaches drastically affected many different aspects of daily life for all three participants. Participants defined affecting daily living as headaches altering their ability to function on a daily basis or perform routine activities.

When Katie was asked about how headaches affected her daily life, she responded:

It is really hard. Most the time I am so used to them that I can just get through it.

At work, being a RN, it can be difficult. If my headache goes into a migraine and gets really bad, I go to the charge nurse and ask to lie down for fifteen minutes.

Katie expressed frustrations about not being able to get the work done especially that she is paid for.

Joanne’s quality of life was drastically decreased in multiple ways because of her daily headaches. Like Katie, Joanne’s ability to function at work was affected:

I would be exhausted and tired. Every day I would get off at two pm and take a three-to-four-hour nap just to get me through the rest of the day. At work I didn’t make too many mistakes, but I would get a headache and get forgetful. So I would have to go back and double-check myself.
Not only was Joanne’s ability to work affected, her ability to function on a daily basis deteriorated rapidly. According to Joanne:

My headaches caused me not to eat well. I would go home and just sleep, I would be so exhausted from working so I would sleep really good; then I would get up and be up till ten or eleven. Then I would have to take Tylenol for the pain and go back to sleep until morning.

Joanne found that her moods were affected at both work and home related to her headaches and lack of sleep:

I had headaches all the time. It was all emotional stress and physical stress. My mood would change; I would be grumpy at work. I mean, I would be up and down. I had my highs and lows. I would be really cheerful and joking, and then I would get grumpy as soon as I got a headache.

For Joanne, it was not until after chiropractics helped relieve her headaches that she realized the impacts her headaches were having on her life.

Molly’s daily life continues to be affected by her headaches, but in different ways than either Katie or Joanne experienced. Major triggers for Molly include perfumes and formaldehyde-based scents. Unfortunately, these scents are very prevalent in households and the public. When asked how these sensitivities have affected her daily life, Molly commented, “A lot of times in people’s homes, they have Glade. It is the worst for me. I don’t usually say anything. I just think ok here we go again, and prepare myself for a headache.” Even going into a grocery store or café, many different scents trigger headaches or migraines without her control. Molly has had many headaches that have completely incapacitated her. Usually her entire day is disrupted, according to Molly, she
allows herself to lie down if possible, get sick, and give herself time to feel better.

According to Molly the most frightening aspects of getting daily headaches involves driving:

I have been on trips where I was driving and have to pull over and say I am so sorry to my kids; I know you hate being in the care but I can’t see to drive, so it is not safe. So I pull over until I can see again.

Molly tries her best to avoid her triggers, but sometimes the headaches just come without her control. According to Molly:

Everyone has a weakness and headaches are mine. I do so much maintenance; I don’t eat refined sugar, because it does make a difference on my body. Also I don’t eat any artificial food; it really is an adjustment and challenge to watch my diet that closely.

Coping with headaches on a daily basis for Molly has been a life and daily adjustment just to try to lead a normal life.

Coping with pain can be defined as methods used to deal with the pain of chronic tension headaches. Each participant identified numerous ways of coping with pain and enduring her headaches. To cope with chronic tension headaches takes energy, endurance, and suffering.

Ice. Ice is a recommended use by both doctors and naturopathies to cause vasoconstriction, theoretically reducing blood volume and thus relieving the pain of the headache. Two participants used ice or a cooling washcloth to help relieve pain from their headaches.
Katie found ice to be helpful even though she never liked the feeling of it. When asked specifically about using ice, Katie responded:

Ice, yes, I do use it, a lot of times. I used to use heat, but then I realized that heat was the worst thing for it on my neck. I do use ice sometimes, but I really have to force myself to do it because I don’t like that feeling. And especially at work it’s hard to do, but when I am at home I will ice my neck.

Margret also found ice to be useful: “I use a cold washcloth on my face which feels good. Sometimes I will have my husband rub my forehead with the cold cloth, which also helps to reduce the pain.” Cold compresses seemed to be a frequent effective use for both Molly and Katie.

Sleep. Sleep was an effective factor for coping with the pain of headaches for both Katie and Joanne. When asked if sleep helped Katie’s headaches, she responded:

A lot of times I can eventually fall asleep with them. Especially when I come home from working night shift at about eight a.m., the headache is usually awful, but I can go to sleep eventually because I am so tired from work. But if I lay there for more than ten or fifteen minutes, I know I need to take something like Ibuprofen in order to fall asleep.

Joanne also found herself always wanting to sleep for two reasons. She felt that her headaches “drained all energies” during the day and thus she was tired. She also expressed that sleep was one of the “only ways to get rid of or cope with the pain of headaches.”

Feeling hopeless. When all treatment options have failed and individuals tried to cope with pain, they became hopeless. All three women expressed hopelessness and
frustration regarding their chronic headaches. Molly expressed her discouragement regarding her headaches stating:

I am forty-six, so I have been enduring headaches for at least thirty-five years without any hope of treatment. I have tried everything. I have gone to doctors and made the effort, but I feel hope is lost regarding my headaches. I just wish I could figure my headaches out.

Katie also commented on the incapacitating effects of her headaches: “It’s frustrating! I get two headaches a week. The longest I have gone without a headache is three weeks.”

Working is also a frustration for Katie when she has headaches:

For me on night shift, I have to make the other nurses keep the lights down so I don’t get a headache. They really have limitations. There have been days where I have been on the couch and my husband gets home from work and I have tucked myself into bed at 6:00 p.m. because of my headache. I can’t even make dinner, I can’t be around the noise of my children, the lights, and I just can’t take care of anyone. It is really hard.

Not only do her headaches cause glitches in her routine at work, they also affect her life at home. When asked if her headaches affect her overall mood and well being, Katie responded:

Yes, they really do affect my mood. But my kids are good and will do anything to help out. My twelve year old will help out around the house and will offer to make dinner. It puts a kink on everything when Mom isn’t feeling good. The house just doesn’t run normal. My husband is really good. But he is so busy that
is makes it hard when I have a headache. Honestly, I just want to live a normal life; I don’t want these headaches to hinder me. That is usually with the migraines, but the tension headaches don’t have as strong of an effect, but they are still there and affect my daily life.

Similar to both Katie and Molly, Joanne felt her overall quality of life was drastically decreased while she was experiencing headaches. For her, all aspects of her daily routine shut down when a headache approached:

I didn’t do anything but work and sleep. I was alienated and couldn’t do more than just deal with my headaches. I’ve been to doctors who prescribed me medicine that didn’t help. I went through six different medications and some antibiotics. There was no relief except when I was passed out in the afternoon after work. I think that over the years with all the stress I’ve had, has given me more strength to continue on, but you get to a point where you break, and my headaches were those for me.

*Keeping everything inside:* Human beings cope in multiple ways depending on the type of personality, events, or situations one is thrust into. For Molly, she frequently expressed her way of coping with headaches was to keep everything inside and just deal with the pain instead of expressing her state of being to others.

I come from an intense family and I know that is genetic and environmental. I am an intense person, but I tend to keep all my stuff on the inside. I am very nice on the outside, but inside, ahhh, it’s not like I am mad or mean, I just feel that no one should have to deal with the things that bother me, but me. I feel like I should just pipe down, which is part of self-discipline. I just stress a lot.
Molly recognized that her family background has developed her coping mechanisms for dealing with pain.

My dad was a military guy. He trained us to never give in. Sickness was weakness, so you never give in. So you have a headache, deal with it. That came in handy when I was a mom. I have five young children. So if I am having a headache, I can’t take that out on my kids; I have never wanted them to take the brunt of my headaches. So being a preacher’s wife, we have done a lot of counseling for people, and I just see too many people that give in to their headaches. And, yeah, they hurt and it is tough, but you can’t give in to that; I don’t mean that to be uncompromising, but you can’t stop, especially when they are chronic. But sometimes, it has broken my heart when my youngest who is really dealing with migraines has to come home from school because his headaches were so severe. Unfortunately though, I just have to say you can’t stay at home all day, because you have a headache. For whatever reason, we will watch your diet, see if are you stressed, we’ll figure it out.

Although Molly copes by keeping everything inside, she acknowledged that her stress levels increase when she keeps her emotions and pain to herself.

Praying. Praying was a subtheme of coping recognized by both Katie and Molly. Although both women used many methods of coping with their headaches, praying helped both to relax and breathe. Being a pastor’s wife, Molly feels praying is essential just to get her mind off headaches:

I just don’t know why I have my headaches. Sometimes I have to pray which helps me to stop, reflect, and breathe. We have prayed and asked God to give us
wisdom and pray he will heal them. He hasn’t taken them away, but that is ok, too. I know that I will keep going, praying, and coping.

When Katie makes a conscious effort to pray, she feels that her headaches are reduced and her overall well-being improves. Faith and spirituality play a defining role in her everyday life. Katie tries to make a conscious effort to pray and give her worries and pain up to God:

I try to pray and give it to God to help me. On my way to work I will pray “Lord, just please help me to get through the night without my headaches.” My girls will pray for me before I go to work. They are so cute; they will pray that I don’t get a headache at work. Honestly, I don’t get as many headaches when I have that faith component there.

When asked if prayer comes easy to her or if she has to consciously approach it, Katie responded:

You know what is funny? I have to consciously think of it, to pray for my headaches. If I could just get my mind around just giving it to God and letting go, life would be easier. I need to just rely on Him. But I don’t always think to do it. My husband also prays for me. It is still an experiment for me as to what is the cause or villain behind my headaches. But I do believe that if I can just pray, my headaches will improve.

Both women approached prayer in different ways, but similarly supported and helped them to cope with the daily pain of chronic tension headaches.

*Losing concentration.* All three participants expressed frustration regarding losing concentration. Losing concentration was defined as the inability to concentrate or focus
on the present task. Having a history of headaches since childhood, Katie has endured concentration loss for many years. According to Katie, “While in nursing school, when I had a headache, I just couldn’t study; it wasn’t effective. If it was late at night, I would go to bed and get up at four or five a.m. to study.” Joanne also found it difficult to study or concentrate even back in high school: “I remember in high school I was waiting for someone to come and get me because of my migraine. I pressed my head against the wall because it was cold and metal to try and relieve some pain.” Molly’s concentration is also affected easily when she has headaches: “It is really hard concentrating whether in church, at home, or out and about when I have a headache.” Lack of concentration leads to decreased ability to function on a daily basis for all three participants.

*Losing relationships.* Participants defined losing relationships as failing to meet the needs of others and their social life related to headaches. Katie felt that her headaches affect her relationship with her kids.

My twelve year old can just sense it when I have a headache and will ask me if I am feeling ok before I even say I have a headache. My five year old can tell also; she seems to sense when my energy goes down and will ask if I have a headache. My two year old obviously is too little to understand and gets upset when Mommy can’t give attention to her.

Also, at work Katie notices a difference in her relationship with her coworkers when she has headaches.

My coworkers at the hospital know I get headaches and migraines, and I feel like it is unfair that they are working with someone who can’t always function to the
best of my ability. The girls I work with are great, but I think sometimes they get frustrated when I can’t function due to my headaches.

At work, Joanne also found herself in strained relationships because of her headaches. When she was at work, she was clashing with her co-workers.

When I was at work and had a headache, I didn’t like to talk to people or listen to them because I was in so much pain. This was not a good thing because then they held it against me. Also, the girls I worked with would get annoyed when I took sick days because of my headaches, and thought that I was not doing my job.

Both Katie and Joanne found ways to cope with their headaches; however, ramifications remained. Both women experienced role changes and relationship changes.

*Exhausting Finances*

Research has shown that the high expenses of both medical and naturopathic treatments have discouraged individuals from seeking healthcare for treatment of their headaches. Any type of treatment regarding medical care has its costs. All three women expressed concerns and difficulties related to finances. Katie finds it difficult to pay for her nutritional supplements, the chiropractor and medications:

I usually take my nutrition supplement for breakfast in milk. There are many different products. Also, I know if I took it twice a day like I am supposed to it would be really good for me, but it is too expensive. For just one can of the nutrition product is $40.00. Between the chiropractor, the medications I take for migraines, and the dietary supplement it seems to add up fast. I would go to get a massage every week of the month if I could afford it. Thankfully, we have insurance so it helps with the chiropractor and medication but not the supplements
or massages. So the chiropractor is $20.00 a time instead of $60.00. However, having a family, I still feel guilty spending money on my headaches.

Molly also commented on how costly taking care of her headaches can be:

Honestly, I haven’t gone to a doctor for ten years because we can’t and have never been able to afford it. And we have never had the money to exhaust in order to run more tests or further my diagnosis and treatment. We have never been in the spot money-wise to do so.

For Joanne, the costs of her headaches have restricted her from getting the care she needed since she was young:

When I was young I would get a headache and go home and go to bed. They didn’t have medicine back then; the first one I had when I was eleven. They rushed me to the hospital because they didn’t know what was wrong with me. They gave me a shot called Supertam with Imatrex, which helped. But afterward I just had to learn to live with them. It was too far and too costly to get admitted to the ER to get a shot. Even now, I have had to take out a loan to see my chiropractor, which my husband really wasn’t too happy about.

Discovering Alternatives

Although each individual was discouraged by past experience with the medical profession, all three women continued their search for treatment options. The participants used trial and error in different areas of treatment to find the best option for them individually. All three attempted very similar alternative therapies and had comparable results. Alternative therapies used include chiropractics, naturopathy, massage, and yoga.
Chiropractics. Chiropractics is the adjustment of sublextion that occurs in the spine from trauma, birth, or faulty body mechanics. Chiropractics have been an alternate treatment option for several body ailments and pain. In current research studies, researchers found chiropractics to be an inconclusive treatment for pain. Two out of the three participants used two different chiropractors and found success. According to Katie:

I go to the chiropractor once or twice a month, which helps the tension part of the headaches. Chiropractics keeps them from starting. It’s nice that insurance helps cover the costs, because I really feel that chiropractics helps especially the week after I get a treatment.

When Joanne was asked about how chiropractics has helped her she responded:

I have been going to a chiropractor for six months now. The reason I went was because I had tension headaches and migraines. They have been wonderful doctors. Chiropractics is the only thing that has surprisingly helped my headaches. I couldn’t take pain medication for my shingles or headaches because they made me sick. Since March, I got off my antidepressant and I have been completely off them for three months, because of the chiropractor. I don’t have to take Tylenol anymore because my headaches are gone. I get pain from my shingles here and there especially when the weather changes. Overall though, I just feel so good compared to how I once felt with my headaches. I feel more alive than I ever have.

Joanne has also found that the chiropractors helped her in other aspects of health as well. After visiting the chiropractors and getting off my antidepressants, I have really started migrating towards more natural things and natural medicine. With the help
of the chiropractors and their educational seminars, I have started using Esteeva, a natural sugar replacement. Also, I have gone on a low glycemic index diet. Also, my chiropractor sometimes does acupressure on my neck as well as adjustments. I lay my head on her hands and she applies pressure which really helps to relieve my headaches. So now if I start to get a headache, I just find the pressure points on my neck and head and put pressure. Even when I am stressed at work, I don’t get the headaches that I used to get.

Both Katie and Joanne continue to find success in chiropractics and have decreased incidence of headaches after treatment sessions.

_Naturopathy._ Naturopathy encompasses multiple fields of healing including dietary changes, supplements, and allergy evaluation. All three clients found diet changes and allergy identification helpful in treating their headaches.

Katie has had both positive and negative experiences with the naturopathic field. When asked about her experiences she responded:

I did when I was in high school. What they told me is that I might be diabetic.

Which was really weird because my blood sugar is usually low. But one time they checked it was above 100 so he was telling me all these things to watch in my diet. Nothing really ever came of it. I never went back, because I wasn’t impressed, and I haven’t been to anyone here in Helena.

Since then I have seen other professionals and with their advice I drink more water and take a nutritional supplement. I try to drink more water, to stay hydrated and decrease my intake of caffeine.
Another thing I take is called Relive, a nutritional supplement my sister-in-law introduced me to. It is also a backup for prenatal vitamin. I take it once a day and put the scoops in milk. It really helps especially when I feel a headache coming on.

Molly found positive information and experiences with her naturopath. A Naturopath works closely with Molly to identify and manage her allergies.

I have gone to a couple different Naturopaths. The one I have now has helped me a lot and with my kids. One of my boys has allergies to milk and it really did affect him. It would make him sick and he would feel awful, but not know why. He has also helped me with identifying the scents and foods I am allergic to. We take a multivitamin and extra calcium. The diet has helped me the most by far. Even eating Cheetos, with MSG, I will get a headache. So I have to be careful when I am ordering or eating any type of food.

Joanne had a similar experience with the naturopath.

Slowly and over time I have changed my diet. And that as well has seemed to help my headaches. My naturopath has really helped with my diet and supplements. He found my allergies and told me about not eating refined or artificial food. But I love my diet soda and unfortunately had to get rid of that. He also had an idea that when I had mono really bad when I was little can have permanent damage on the liver so it doesn’t decrease the toxins.

**Massage.** Massage is a therapy that involves the manipulating and rubbing of muscles to reduce tension and lengthen muscles. In many research studies, massage has
been found to relieve the pain of tension headaches. In this study all three participants found the same result.

When Molly was asked about massage as an effective therapy she responded:

Well, I am a massage therapist, but I haven’t gotten a professional one in a while because my husband is really good about rubbing my neck and head. It really helps me. I don’t know if mine is muscular. I just can’t figure them out. The times I was able to go to the doctors, they had no idea either. Being a massage therapist myself, it would make sense that my headaches, not necessarily migraines, are related to the stress I hold in my neck muscles and back.

Katie also expressed that massage is very effective in treating her headaches.

Massage is so therapeutic for me, especially with being a mom and having this busy life; it’s nice to have that you time. It is so relaxing. When I leave I don’t have a headache and I feel so loose and almost like Jello; everything feels so good. It is almost more of a treat than anything, but helps my headaches also. I went to Molly in August, which really helped. She gave me a massage in August and that is the last one I had and before that in March. I would love to go every month. I think it helps me but I don’t go enough to see a pattern. I know for the few days after a massage I feel very relaxed. I just normally get so tight, it is nice to have a relief.

Joanne also uses massage from time to time. She finds the combination of chiropractics and massage to be effective. When asked about massage therapy, Joanne responded:
Every once in a while my husband will rub my back and that helps. I also went to a spa retreat with some girl friends and getting a massage made my weekend. My neck was relaxed and I didn’t have one headache for over a week.

All three participants found relaxation and massage to be effective in treating their headaches. If finances were not an issue, all women expressed they would get them more frequently.

Relaxation. Two of the three women in this study employed different techniques of relaxation. Yoga, deep breathing, and mind-body relaxation were used. Yoga is a mind and body practice, which involves balance, concentration, and stretching. Molly uses yoga as an outlet and way to cope with her headaches. When asked if yoga helps her with her stress she responded:

Yes, it really helps with meditation and breathing. Stretches are huge; they feel so good. Learning to breathe, and breathing right has really helped. Take a deep breath and let it out. That has really helped realizing that.

According to Katie deep breathing and visual relaxation help reduce her stress, tension, and ultimately her headaches. When asked about relaxation, Katie responded:

I really have to make myself think about relaxing. I lay down in a quiet place and first focus on my breathing. Then I gradually think about relaxing all of my muscles. Usually after twenty minutes, I feel much better and centered. When I do not have time to lay down or am at work, I stop what I am doing and take three deep focused breaths, which helps remind me to relax my shoulders and jaw. Also, sometimes I go to yoga, and that really helps me get centered and still get a workout.
Katie and Molly experienced success in do-it-yourself and experimental types of relaxation. Relaxation techniques were utilized as both a preventive measure and a treating modality for headaches in these women.

Conclusion

The lived experience of chronic tension headaches exemplifies the struggles, coping mechanisms, and chronic pain individuals encounter. All three women interviewed with tension headaches shared their difficulties and successes coping with such pain. For all three participants, a life story unfolded of parallel coping mechanisms, hardships, and treatment modalities.
Chapter V

Discussion

Emerging themes from the research conducted with the three women revealed conclusive data regarding triggering, medication, coping, finances, and treatment alternatives. All three participants found the pain of chronic tension headaches to be debilitating and reducing their overall function. Each found complementary and alternative therapies more beneficial for treating their pain and occurrence of tension headaches.

Triggering

Many triggers were identified for participants. All three women concurrently identified stress as a primary trigger causing their headaches. Each participant coped with stress in different ways, but all three expressed that high stress was associated with increased headaches and pain. All participants led very busy lives consumed by jobs, families, children, and daily chores. According to the Mayo Clinic, stress is a frequently identified trigger for tension headaches. Also, over half of the people living with tension headaches reported that they felt stressed before their headache began (Mayo Clinic, 2007).

One of the participants found foods and scents as strong triggers for her tension headaches. Working with a naturopath and trial and error, Molly found Glade scents and certain foods to be her triggers. Jackson (2008), published in the British Journal of General Practice, encouraged her headache patients to look for possible triggers or precipitants. Many triggers she had asked patients to assess included caffeine, chocolate,
cheese, citrus fruits and juices, onion, raw apple, or alcohol. She also encouraged such clients to evaluate their level of fatigue, lack of fluid intake, or missed meals.

Another frequent trigger for the three woman participants was light. Bright, florescent, or light glares triggered headaches in all three women. Similarly, current research studies identified lights as a trigger for both tension-type headaches and migraines (Mayo Clinic, 2007). Two of the three women who participated in the study researched lights as triggers. Both felt relieved that researches identified lights as a common trigger; however, both women struggled with forecasting when lights would or would not trigger their headaches.

*Trying Medications*

The participants in this study all had similar outcomes when using medication for pain related to their headaches. All three woman expressed dislike for the way prescription drugs made them feel. Also, the women articulated their dislike for using Ibuprofen or Tylenol and feared becoming dependent. Participants used these types of medications in order to take the edge off when their headache pain was severe. Evidence supports the overuse and adverse effects of medications used to treat chronic tension headaches. According to Buckley, most individuals responded well to NSAIDS and acetaminophen, but consequences came with using the drugs. Rebound headaches are a common occurrence resulting from the use of such drugs (Buckley, 2004). The three participants’ opinion on medication use paralleled such research and illustrated the downsides to taking medication.
Affecting Daily Living

In this study, the three participants all discussed how chronic tension headaches affected their ability to complete daily tasks. Each woman identified different issues such as not having energy to function or not being able to work or interact with others related to their headache pain. When these individuals were experiencing their headaches, their overall quality of life plummeted and daily activities came to a standstill. Researchers noted decreased quality of life in a study performed on 28 individuals diagnosed with tension headaches (Nash & Thebarge, 2006). These results support the three women’s inability to function and support the frustrating effects of their headaches.

Coping with Pain

In this study, multiple ways of coping with pain were similarly identified by each participant. Common sub-themes noted between the participants included ice, sleep, praying, losing relationships, and losing concentration. Every individual experienced chronic tension headaches differently, which provided reason as to why such headaches are difficult to diagnose. Individuals must find what coping mechanisms help them to deal and recover from the chronic pain incurred from headaches. According to a study conducted by the Mayo Clinic in 2007, participants reported living with chronic pain to be extremely difficult. Not only did the physical symptoms affect their daily life, chronic pain made them anxious or depressed. In the conclusion of the study, Mayo researchers found that “ultimately, it [chronic pain] may affect your relationships with friends and family, your productivity at work and the overall quality of your life (Mayo Clinic, 2007).
Ice and sleep seemed to help the participants cope with the chronic pain most frequently and consistently. All three participants found that their headaches caused them to easily lose concentration forcing them to separate from daily activities. Also, relationships were affected because all three participants would withdraw and not be able to interact in their normal manner.

*Exhausting Finances*

Research has illustrated that one of the barriers to treating chronic pain is the cost of treatment. Participants in this study reflected such evidence and discussed the high costs needed to pay for their treatments. In a study conducted by Rossi, Lorenzo, Faroni, Malpezzi, Cesarino, Nappi, researchers found complementary and alternative methods to be expensive, and people with lower economic status could not afford needed therapy for their pain (2006). All three women articulated difficulty paying for the costs of both pharmacological therapy and alternative treatments. Unfortunately, the women were not able to fully treat themselves and appropriately address their pain because of financial payments. The cost of treatment was overwhelming and thus caused individuals not to seek pain care or prevention.

*Discovering Alternatives*

A wide body of research has been established regarding alternative and complementary treatment for chronic tension headaches and pain. The three women evaluated in this study noted that alternative treatment modalities were both most successful and preventive in treating their tension headaches. Participants found success using multiple alternative modalities including massage, chiropractics, naturopathy, and relaxation. In a recent study conducted by researchers, Quinn, Chandler, and Moraska
from the University of Boulder, massage was found to be an effective “therapy in reducing the number of headaches per week in chronic tension headache sufferers. Compared with baseline levels, headache frequency was reduced within 1 week of massage treatment” (2002). In two recent clinical trials using a physical therapy program involving intensive massage, researchers noted a statistically significant reduction in headache frequency during and after the program (Chandler & Moraska, 2007).

An important aspect of massage related to understanding its function and how it works. According to the 2004 International Classification of Headache Disorders published by the International Headache Society (HIS), diagnostic testing “indicates muscle involvement in tension type headaches” (Chandler & Moraska, 2007). The HIS found that individuals with tension-type headaches experience tension, tenderness, and greater incidence of myofascial trigger points in skeletal muscles. These conclusions illustrate why massage would assist in relieving pain. Massage aims at releasing such trigger points and reestablished blood flow to targeted regions.

To support the theory of muscle involvement, a pilot study was established using a massage therapy treatment program aimed at releasing myofascial trigger points. This study found a statistically significant decrease during and after the 6-week massage program. Also, when headaches did occur, both the duration and intensity drastically decreased (Chandler & Moraska, 2007). Similarly to the aforementioned studies, this study with the three women implicated the importance and success of massage.

Relaxation was also found to be beneficial to the three participants. Relaxation was defined very differently for each individual interviewed. Two of the three individuals identified deep breathing, yoga, and mind-body relaxation as relaxation techniques. In a
recent study, researcher found that even “home based behavioral treatments typically yield a forty percent rate reduction in tension type headaches. Moreover, strictly self help relaxation treatments have been shown to yield upwards of thirty percent reduction in headache activity” (Smitherman, Nicholson, & Penzien, 2007). The three women in this study had to make a conscious effort to relax; however, when they focused on relaxation it worked to relieve their headache pain.

*Nursing Implications*

Nurses must be aware of the criteria for diagnosis of chronic tension headaches and possible treatment options. Every individual’s pain and experience with tension headaches will be different. Nurses need to use all aspects of care including assessing diet, underlying health issues, and current coping mechanisms for pain. Each individual will be treated differently depending on how he or she responds to treatment plans. Also, both the nurse and patients have to be flexible with treatment and understand that not all treatments may work to reduce the pain or free them of headaches.

Also, nurses are the main source of education and support for individuals experiencing chronic tension headaches. Individuals depend on nurses for proper assessments and prescribing appropriate interventions for coping with pain.

*Future Research*

Although research on chronic tension headaches and treatment has become increasingly popular, more research studies and information need to be established. Individuals with headaches should be evaluated and diagnosed correctly before deciding on treatment options. Research is needed to develop evidence-based practice standards for education and treatment regarding chronic tension headaches. Also, health care
providers need to be aware and knowledgeable about both pharmacological and alternative modalities of treatment. Furthering future research will benefit both clients experiencing tension headaches and those healthcare professionals treating them through advancing treatment and diagnostic options and opportunities.
References


