KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 25 July 2024
Revised 02 September 2024
Accepted 15 September 2024
Published online 01 October 2024

Journal of Personality and Psychosomatic Research

Volume 2, Issue 4, pp 36-43

E-ISSN: 3041-8542

Exploring the Psychosomatic Effects of Perfectionism in Patients with Chronic Tension-Type Headaches: A Qualitative Study

Abbie. Wilson[1*], Ali. Aghaziarati[2], Milad. Saadati[3]

[1] Department of Psychology, Clark University, Worcester, Massachusetts, USA
[2] Department of Psychology and Counseling, KMAN Research Institute, Richmond Hill, Ontario, Canada
[3] Department of Laboratory Medicine and Pathobiology (LMP), University of Toronto, Canada

*** Corresponding author email address**: abbiewilson@clarku.edu

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Wilson, A., Aghaziarati, A., & Saadati, M. (2024). Exploring the Psychosomatic Effects of Perfectionism in Patients with Chronic Tension-Type Headaches: A Qualitative Study. *Journal of Personality and Psychosomatic Research, 2*(4), 36-43.
https://doi.org/10.61838/kman.jppr.2.4.6

A B S T R A C T

This study aims to explore the psychosomatic effects of perfectionism in patients suffering from chronic tension-type headaches (CTTH). By examining the experiences and perceptions of individuals with CTTH, the research seeks to understand how perfectionistic tendencies influence headache symptoms, coping strategies, and overall quality of life. A qualitative phenomenological approach was employed, involving semi-structured interviews with 27 participants diagnosed with CTTH and exhibiting high levels of perfectionism. Participants were recruited from various healthcare settings, and data collection continued until theoretical saturation was reached. The interviews were transcribed verbatim and analyzed using NVivo software. A thematic analysis was conducted to identify key themes and subthemes related to the psychosomatic interplay between perfectionism and CTTH. Four main themes emerged from the analysis: (1) Personal definitions and perceptions of perfectionism, highlighting high self-imposed standards and external pressures; (2) Experiences of CTTH and its impact on daily life, revealing significant physical, emotional, and social impairments; (3) Coping strategies and perceived relationships between perfectionism and headache episodes, including both adaptive and maladaptive mechanisms; and (4) Emotional and psychological responses to headache management and perfectionistic tendencies, emphasizing the complex emotional burden and the need for holistic treatment approaches. Participants reported increased headache severity during periods of stress and utilized various strategies, such as mindfulness and cognitive reframing, to manage their symptoms. The study underscores the intricate relationship between perfectionism and CTTH, highlighting the need for integrated treatment approaches that address both physical and psychological aspects. By understanding the role of perfectionism in exacerbating headache symptoms, healthcare providers can develop more effective, holistic treatment plans that improve patient outcomes and quality of life.

Keywords: *Chronic tension-type headache, Perfectionism, Psychosomatic effects, Qualitative study, Coping strategies, Emotional responses, Holistic treatment, Thematic analysis.*

1. Introduction

Chronic tension-type headache (CTTH) is a prevalent condition characterized by frequent, persistent headaches that significantly impact individuals' quality of life. It is classified under primary headaches and is considered one of the most common headache disorders globally (Silberstein et al., 1996). Despite its widespread prevalence, the pathophysiology and optimal management strategies for CTTH remain complex and multifaceted.

CTTH affects a significant portion of the population, with varying prevalence rates reported in different studies. For instance, Jensen (2003) highlights the widespread nature of tension-type headaches, emphasizing their substantial impact on public health due to high prevalence and associated disability. The chronic form of tension-type headache, which is diagnosed when headaches occur on more than 15 days per month for at least three months, leads to considerable functional impairment and reduced quality of life (Jensen, 2003; Lyngberg et al., 2005). This condition not only affects physical health but also has profound psychological and social implications.

The pathophysiology of CTTH is not completely understood, but it is believed to involve a combination of peripheral and central mechanisms. Holroyd (2002) discusses the behavioral and psychological aspects of CTTH, noting that muscle tension, stress, and psychological factors play significant roles in the development and maintenance of the condition (Holroyd, 2002). Psychological factors, such as perfectionism, have been implicated in exacerbating headache symptoms and contributing to their chronicity. Perfectionism, characterized by setting excessively high standards and striving for flawlessness, is associated with increased stress and maladaptive coping strategies, which can aggravate headache symptoms (Bottos & Dewey, 2004).

Perfectionism has been shown to interact with chronic pain conditions, including CTTH, in complex ways. Hochwarter and Byrne (2010) explore the interactive effects of chronic pain, guilt, and perfectionism on work outcomes, highlighting how these factors collectively influence individuals' experiences and functional abilities. Their findings suggest that perfectionistic tendencies can exacerbate the experience of chronic pain by increasing stress and negative emotional responses, thereby worsening headache symptoms (Hochwarter & Byrne, 2010).

CTTH often coexists with other psychiatric conditions, adding layers of complexity to its management. Mongini et al. (2006) investigate the accompanying symptoms and psychiatric comorbidities in patients with migraine and tension-type headaches, noting that anxiety and depression are common among these individuals. This comorbidity further complicates the clinical picture and necessitates a holistic approach to treatment that addresses both the physical and psychological aspects of the disorder (Mongini et al., 2006).

Various pharmacological and non-pharmacological treatments have been explored for managing CTTH. Ashina and Ashina (2003) review current and potential future drug therapies, discussing the effectiveness of medications such as analgesics, antidepressants, and muscle relaxants in alleviating headache symptoms. However, the long-term use of pharmacological treatments can lead to medication overuse headaches, prompting the need for alternative therapeutic approaches (Ashina & Ashina, 2003).

Alternative and complementary therapies have gained attention as potential treatments for CTTH. Acupuncture, for example, has been studied for its effectiveness in reducing headache frequency and severity. Zheng et al. (2022) and Riddle (2022) provide evidence supporting the use of acupuncture in patients with CTTH, highlighting its potential benefits in improving headache outcomes without the adverse effects associated with long-term medication use (Zheng et al., 2022). Similarly, Tong, Cui, and Sun (2015) discuss the role of Chinese herbal therapy in managing CTTH, suggesting that these traditional practices can offer relief for some patients (Tong et al., 2015).

Botulinum toxin has also been investigated as a treatment option for CTTH. Smuts et al. (1999) and Porta and Camerlingo (2005) explore the prophylactic use of botulinum toxin type A, showing promise in reducing headache frequency and intensity. These emerging therapies, alongside traditional pharmacological and non-pharmacological approaches, underscore the need for a multifaceted treatment strategy tailored to individual patient needs (Porta & Camerlingo, 2005; Smuts et al., 1999).

Genetic factors may also play a role in the predisposition to CTTH. Russell (2007) examines the genetics of tension-type headache, suggesting that hereditary components may influence the development and course of the condition. Understanding these genetic underpinnings could lead to more personalized treatment approaches and improve prognostic outcomes for patients (Russell, 2007).

Behavioral interventions, including cognitive-behavioral therapy (CBT), have been effective in managing CTTH by addressing the psychological factors contributing to

headache chronicity. Garza and Schwedt (2010) emphasize the importance of comprehensive management strategies that incorporate behavioral and psychological therapies to mitigate the impact of CTTH on daily functioning (Garza & Schwedt, 2010).

This study aims to explore the psychosomatic effects of perfectionism in patients with CTTH, focusing on how perfectionistic traits influence headache experiences and coping strategies. By employing a qualitative approach, we seek to gain an in-depth understanding of the lived experiences of individuals with CTTH and perfectionistic tendencies, shedding light on the intricate interplay between psychological factors and chronic pain.

The primary objectives of this study are to:

- Investigate the personal definitions and perceptions of perfectionism among patients with CTTH.
- Understand the impact of CTTH on daily life, including physical, emotional, and functional aspects.
- Explore the coping strategies employed by patients and their perceived relationship between perfectionism and headache episodes.
- Examine the emotional and psychological responses to headache management and perfectionistic tendencies.

2. Methods and Materials

2.1. Study Design and Participants

This qualitative study aimed to explore the psychosomatic effects of perfectionism in patients suffering from chronic tension-type headaches (CTTH). We employed a phenomenological approach to gain an in-depth understanding of the participants' experiences and perceptions. The study design was approved by the Institutional Review Board (IRB) of [Institution Name], ensuring adherence to ethical guidelines and protection of participant confidentiality.

Inclusion criteria included adults aged 18 and older, diagnosed with chronic tension-type headaches for at least six months, and exhibiting traits of perfectionism as determined by the Frost Multidimensional Perfectionism Scale (FMPS). Exclusion criteria included individuals with other chronic pain conditions, psychiatric disorders requiring hospitalization, or an inability to participate in interviews due to language barriers or cognitive impairments.

Data collection continued until theoretical saturation was reached, meaning no new themes or insights were emerging from additional interviews. This approach ensured a comprehensive understanding of the participants' experiences and perspectives, enhancing the study's credibility and depth.

2.2. Measure

2.2.1. Semi-Structured Interview

Data were collected through semi-structured interviews conducted by a trained qualitative researcher. An interview guide was developed based on the literature review and expert consultations, focusing on the psychosomatic interplay between perfectionism and CTTH. Key areas of inquiry included:

- Personal definitions and perceptions of perfectionism.
- Experiences of CTTH and its impact on daily life.
- Coping strategies and perceived relationships between perfectionism and headache episodes.
- Emotional and psychological responses to headache management and perfectionist tendencies.

Each interview lasted approximately 45-60 minutes and was conducted in a private setting, either in-person or via a secure online platform, depending on participant preference and logistical considerations. Interviews were audio-recorded with participant consent and transcribed verbatim for analysis.

2.3. Data Analysis

Transcribed interviews were imported into NVivo software for systematic coding and analysis. The analysis followed a thematic approach, involving the following steps:

Familiarization: Researchers read through the transcripts multiple times to become thoroughly familiar with the data.

Initial Coding: Open coding was performed, where meaningful segments of the text were labeled with initial codes.

Developing Themes: Codes were grouped into broader categories, and themes were developed based on patterns and relationships identified in the data.

Reviewing Themes: Themes were reviewed and refined to ensure they accurately represented the data and captured the essence of the participants' experiences.

Defining and Naming Themes: Final themes were defined and named, providing a coherent narrative of the findings.

3. Findings and Results

The study included a total of 27 participants, comprising 18 females (67%) and 9 males (33%). The age range of the participants was 25 to 55 years, with a mean age of 38 years. In terms of marital status, 15 participants (56%) were married, 8 (30%) were single, and 4 (14%) were divorced. Educationally, the sample was well-educated, with 19 participants (70%) holding a bachelor's degree or higher, while the remaining 8 participants (30%) had completed high school or vocational training. Employment status varied among the participants, with 16 (59%) being employed full-time, 5 (19%) part-time, 3 (11%) self-employed, and 3 (11%) unemployed. The duration of chronic tension-type headaches reported by participants ranged from 1 to 20 years, with a mean duration of 7 years.

Table 1

Categories, Subcategories, and Concepts

Categories	Subcategories	Concepts
1. Personal Definitions and Perceptions of Perfectionism	1.1 Self-imposed Standards	High expectations, constant self-criticism, fear of failure
	1.2 External Pressures	Family expectations, societal standards, peer comparisons
	1.3 Perfectionism in Different Domains	Academic/work performance, appearance, social relationships
	1.4 Emotional Responses	Anxiety, guilt, frustration
	1.5 Coping Mechanisms	Procrastination, over-preparation, avoidance
2. Experiences of CTTH and its Impact on Daily Life	2.1 Physical Symptoms	Headache intensity, frequency, duration
	2.2 Functional Impairment	Work/school absenteeism, reduced productivity, limited social activities
	2.3 Emotional and Psychological Effects	Stress, depression, irritability
	2.4 Triggers and Aggravating Factors	Stressful events, lack of sleep, poor posture
3. Coping Strategies and Perceived Relationships Between Perfectionism and Headache Episodes	3.1 Stress Management Techniques	Relaxation exercises, mindfulness, physical activity
	3.2 Cognitive and Behavioral Strategies	Reframing thoughts, setting realistic goals, time management
	3.3 Social Support	Family support, friends, support groups
	3.4 Medical and Therapeutic Interventions	Medication, therapy, alternative treatments
	3.5 Perceived Interactions	Increased headaches during stress, relief through relaxation
	3.6 Adaptation Over Time	Learning from experiences, evolving strategies
4. Emotional and Psychological Responses to Headache Management and Perfectionist Tendencies	4.1 Frustration with Symptoms	Inability to perform, feeling of helplessness, irritability
	4.2 Acceptance and Adjustment	Coming to terms, developing resilience, lifestyle changes
	4.3 Impact on Self-Identity	Altered self-image, loss of confidence, redefined self-worth
	4.4 Interpersonal Relationships	Strained relationships, seeking support, communication issues

3.1. Personal Definitions and Perceptions of Perfectionism

Self-imposed Standards: Participants described their perfectionism as driven by high self-imposed standards. Many expressed constant self-criticism and a pervasive fear of failure. One participant noted, "I always feel like I have to be the best, and anything less is unacceptable." This relentless pursuit of excellence often led to feelings of inadequacy and stress.

External Pressures: External pressures, including family expectations, societal standards, and peer comparisons, were significant contributors to participants' perfectionist tendencies. As one interviewee shared, "My parents always expected me to excel in everything, and that pressure has stayed with me." These external demands exacerbated the internal drive for perfection, creating a compounded effect on their mental health.

Perfectionism in Different Domains: Participants reported that their perfectionism manifested in various domains, such as academic or work performance, physical

appearance, and social relationships. For example, one participant mentioned, "I can't relax until everything at work is perfect, and I apply the same standards to my personal life." This pervasive perfectionism impacted multiple aspects of their daily existence.

Emotional Responses: The emotional toll of perfectionism included anxiety, guilt, and frustration. One participant described, "I feel anxious all the time because I'm afraid of making mistakes." These negative emotions were recurrent themes, highlighting the psychological burden carried by individuals with perfectionistic traits.

Coping Mechanisms: In response to their perfectionist tendencies, participants adopted various coping mechanisms, such as procrastination, over-preparation, and avoidance. As one interviewee explained, "I sometimes avoid starting tasks because I fear they won't meet my high standards." These strategies, while intended to manage stress, often led to further complications and heightened anxiety.

3.2. Experiences of CTTH and its Impact on Daily Life

Physical Symptoms: Participants frequently discussed the intensity, frequency, and duration of their headaches. One individual noted, "The headaches are so severe that I can't concentrate on anything else." These physical symptoms were debilitating and had a significant impact on their quality of life.

Functional Impairment: Chronic tension-type headaches led to functional impairments, including work or school absenteeism, reduced productivity, and limited social activities. As one participant stated, "I miss work often because of my headaches, and it's affecting my job performance." The headaches thus had a pervasive impact on their daily functioning.

Emotional and Psychological Effects: The emotional and psychological effects of CTTH included stress, depression, and irritability. A participant shared, "The constant pain makes me irritable and stressed, which only seems to make the headaches worse." This cyclical relationship between emotional distress and physical pain was a common theme.

Triggers and Aggravating Factors: Stressful events, lack of sleep, and poor posture were identified as common triggers and aggravating factors for headaches. One interviewee commented, "Stress is a big trigger for my headaches; even small stressors can set them off." Understanding these triggers was crucial for managing their condition.

3.3. Coping Strategies and Perceived Relationships Between Perfectionism and Headache Episodes

Stress Management Techniques: Participants utilized various stress management techniques, such as relaxation exercises, mindfulness, and physical activity, to cope with their headaches. One participant explained, "Mindfulness has been really helpful in reducing the intensity of my headaches."

Cognitive and Behavioral Strategies: Cognitive and behavioral strategies, including reframing thoughts, setting realistic goals, and effective time management, were commonly employed. As one interviewee noted, "I've learned to set more realistic goals for myself, which has helped reduce some of the stress and headaches."

Social Support: The importance of social support from family, friends, and support groups was frequently highlighted. A participant shared, "Talking to others who understand what I'm going through has been incredibly supportive."

Medical and Therapeutic Interventions: Many participants relied on medical and therapeutic interventions, such as medication, therapy, and alternative treatments, to manage their headaches. One interviewee mentioned, "Therapy has helped me deal with both my perfectionism and my headaches."

Perceived Interactions: Participants often perceived a direct interaction between their perfectionist tendencies and headache episodes. Increased headaches during periods of stress and relief through relaxation were common observations. As one participant described, "When I'm stressed about meeting my own high standards, my headaches get worse."

Adaptation Over Time: Over time, participants adapted their coping strategies, learning from their experiences and evolving their approaches to managing headaches and perfectionism. One interviewee reflected, "I've learned to be kinder to myself and adjust my expectations, which has helped reduce my headaches."

3.4. Emotional and Psychological Responses to Headache Management and Perfectionist Tendencies

Frustration with Symptoms: Participants expressed significant frustration with their symptoms, including the inability to perform at desired levels and feelings of helplessness. One participant lamented, "I get so frustrated when my headaches stop me from doing what I need to do."

JPPR
E-ISSN: 3041-8542

Acceptance and Adjustment: Acceptance and adjustment to their condition were critical themes, with participants developing resilience and making lifestyle changes. A participant shared, "I've come to accept that I can't always be perfect, and that's okay."

Impact on Self-Identity: The impact of CTTH on self-identity was profound, with many participants experiencing an altered self-image, loss of confidence, and a redefined sense of self-worth. One interviewee remarked, "The headaches have made me see myself differently, but I'm learning to value myself beyond my productivity."

Interpersonal Relationships: The condition also affected interpersonal relationships, leading to strained interactions, the need for support, and communication issues. As one participant explained, "It's hard to maintain relationships when you're constantly in pain, but talking about it has helped."

By examining these themes and subthemes, we gain a comprehensive understanding of the intricate relationship between perfectionism and chronic tension-type headaches, highlighting the psychosomatic interplay and its impact on patients' lives.

4. Discussion and Conclusion

This study explored the psychosomatic effects of perfectionism in patients with chronic tension-type headaches (CTTH) through qualitative methods. The findings highlighted four main themes: personal definitions and perceptions of perfectionism, experiences of CTTH and its impact on daily life, coping strategies and perceived relationships between perfectionism and headache episodes, and emotional and psychological responses to headache management and perfectionistic tendencies.

Participants described their perfectionism as driven by high self-imposed standards and external pressures, manifesting in various domains such as work, appearance, and social relationships. The emotional toll included anxiety, guilt, and frustration, which exacerbated their headaches. Coping mechanisms involved both adaptive strategies like mindfulness and maladaptive strategies such as avoidance. The impact of CTTH was profound, affecting physical, emotional, and social functioning, with common triggers including stress and poor sleep.

The study's findings align with existing literature on the psychological and behavioral aspects of CTTH. Holroyd (2002) emphasizes the significant role of psychological factors, such as stress and muscle tension, in the development and maintenance of CTTH (Holroyd, 2002). Our study extends this understanding by illustrating how perfectionism specifically exacerbates these psychological factors, leading to increased headache frequency and severity.

The relationship between perfectionism and chronic pain is well-documented. Hochwarter and Byrne (2010) discuss how perfectionism, combined with chronic pain and guilt, adversely affects work outcomes (Hochwarter & Byrne, 2010). Our findings support this, showing that perfectionistic individuals with CTTH experience substantial functional impairments, including work absenteeism and reduced productivity. This interaction creates a vicious cycle where perfectionism heightens stress, which in turn aggravates headache symptoms, further impairing functionality.

The coping strategies identified in our study resonate with existing research on CTTH management. Holroyd (2002) and Garza and Schwedt (2010) highlight the importance of behavioral and cognitive strategies in managing CTTH. Our participants reported using similar techniques, such as mindfulness and cognitive reframing, to manage their headaches (Garza & Schwedt, 2010; Holroyd, 2002). However, maladaptive coping mechanisms, like avoidance and procrastination, were also prevalent, underscoring the need for targeted interventions to address these behaviors.

The emotional and psychological responses to CTTH management and perfectionistic tendencies reveal a complex interplay between these factors. Mongini et al. (2006) discuss the high prevalence of psychiatric comorbidities, such as anxiety and depression, in patients with tension-type headaches (Mongini et al., 2006). Our study corroborates this, showing that the emotional burden of perfectionism exacerbates these comorbidities, further complicating headache management.

The perceived interactions between stress, perfectionism, and headache episodes highlight the need for integrated treatment approaches. Ashina and Ashina (2003) review pharmacological treatments for tension-type headaches (Ashina & Ashina, 2003), but our findings suggest that addressing the underlying psychological factors is equally important. This is supported by the efficacy of acupuncture (Riddle, 2022; Zheng et al., 2022) and Chinese herbal therapy (Tong et al., 2015) in reducing headache frequency and severity through holistic approaches.

This study has several limitations that should be considered when interpreting the findings. Firstly, the sample size was relatively small (27 participants), which

JPPR
E-ISSN: 3041-8542

may limit the generalizability of the results. Although qualitative research aims to provide depth of understanding rather than generalizability, a larger sample could provide a more comprehensive view of the experiences of individuals with CTTH and perfectionism.

Secondly, the study relied on self-reported data, which is subject to biases such as social desirability and recall bias. Participants may have underreported or overreported their experiences due to these biases. Future studies could incorporate objective measures, such as headache diaries or physiological stress indicators, to complement self-reported data.

Thirdly, the study focused on individuals with CTTH and high levels of perfectionism, potentially overlooking the experiences of those with moderate or low levels of perfectionism. Future research could explore a broader spectrum of perfectionistic tendencies to understand their impact on headache experiences more comprehensively.

Future research should consider larger and more diverse samples to enhance the generalizability of the findings. Including participants from various demographic backgrounds, such as different age groups, cultural backgrounds, and socioeconomic statuses, could provide a more holistic understanding of the psychosomatic effects of perfectionism in CTTH.

Longitudinal studies are needed to examine the long-term effects of perfectionism on headache outcomes. Such studies could explore how perfectionistic traits evolve over time and their impact on the chronicity and management of tension-type headaches. Additionally, investigating the effectiveness of specific interventions, such as cognitive-behavioral therapy (CBT) and mindfulness-based stress reduction (MBSR), in reducing perfectionism and improving headache outcomes would be valuable.

Further research could also explore the genetic and neurobiological underpinnings of perfectionism and CTTH. Russell (2007) highlights the potential genetic factors in tension-type headaches, suggesting that genetic predispositions may interact with psychological traits like perfectionism to influence headache experiences. Understanding these interactions could lead to more personalized treatment approaches (Russell, 2007).

Healthcare providers should adopt a holistic approach to managing CTTH in patients with perfectionistic tendencies. This includes not only pharmacological treatments but also psychological interventions that address the underlying perfectionism and associated stress. Cognitive-behavioral therapy (CBT) and mindfulness-based stress reduction (MBSR) are evidence-based approaches that could be integrated into treatment plans to help patients develop healthier coping strategies and reduce headache frequency and severity.

Regular screening for perfectionism and associated psychological factors, such as anxiety and depression, should be incorporated into routine assessments for patients with CTTH. Early identification and intervention can prevent the escalation of symptoms and improve overall treatment outcomes. Clinicians should also educate patients about the potential impact of perfectionism on their headaches and encourage them to set realistic goals and expectations.

Collaboration between multidisciplinary teams, including neurologists, psychologists, and physical therapists, is crucial for providing comprehensive care. Such collaboration can ensure that all aspects of the patient's condition are addressed, from the physical symptoms of CTTH to the psychological factors contributing to its chronicity. Integrating complementary therapies, such as acupuncture and Chinese herbal therapy, may also provide additional relief and improve patients' quality of life.

In conclusion, this study underscores the complex interplay between perfectionism and chronic tension-type headaches, highlighting the need for integrated and holistic treatment approaches. By addressing both the physical and psychological aspects of the condition, healthcare providers can offer more effective and comprehensive care for patients suffering from CTTH.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

References

Ashina, S., & Ashina, M. (2003). Current and Potential Future Drug Therapies for Tension-Type Headache. *Current Pain and Headache Reports*, *7*(6), 466-474. https://doi.org/10.1007/s11916-003-0063-8

Bottos, S., & Dewey, D. (2004). Perfectionists' Appraisal of Daily Hassles and Chronic Headache. *Headache the Journal of Head and Face Pain*, *44*(8), 772-779. https://doi.org/10.1111/j.1526-4610.2004.04144.x

Garza, I., & Schwedt, T. J. (2010). Diagnosis and Management of Chronic Daily Headache. *Seminars in Neurology*, *30*(02), 154-166. https://doi.org/10.1055/s-0030-1249224

Hochwarter, W. A., & Byrne, Z. S. (2010). The Interactive Effects of Chronic Pain, Guilt, and Perfectionism on Work Outcomes. *Journal of Applied Social Psychology*, *40*(1), 76-100. https://doi.org/10.1111/j.1559-1816.2009.00564.x

Holroyd, K. A. (2002). Behavioral and Psychologic Aspects of the Pathophysiology and Management of Tension-Type Headache. *Current Pain and Headache Reports*, *6*(5), 401-407. https://doi.org/10.1007/s11916-002-0083-9

Jensen, R. (2003). Diagnosis, Epidemiology, and Impact of Tension-Type Headache. *Current Pain and Headache Reports*, *7*(6), 455-459. https://doi.org/10.1007/s11916-003-0061-x

Lyngberg, A. C., Rasmussen, B. K., Jørgensen, T., & Jensen, R. H. (2005). Prognosis of Migraine and Tension-Type Headache. *Neurology*, *65*(4), 580-585. https://doi.org/10.1212/01.wnl.0000172918.74999.8a

Mongini, F., Rota, E., Deregibus, A., Ferrero, L., Migliaretti, G., Cavallo, F., Mongini, T., & Novello, A. (2006). Accompanying Symptoms and Psychiatric Comorbidity in Migraine and Tension-Type Headache Patients. *Journal of psychosomatic research*, *61*(4), 447-451. https://doi.org/10.1016/j.jpsychores.2006.03.005

Porta, M., & Camerlingo, M. (2005). Headache and Botulinum Toxin. *The Journal of Headache and Pain*, *6*(4), 325-327. https://doi.org/10.1007/s10194-005-0222-x

Riddle, E. J. (2022). Acupuncture Treatment for Chronic Tension-Type Headache. *Neurology*, *99*(14). https://doi.org/10.1212/wnl.0000000000201075

Russell, M. B. (2007). Genetics of Tension-Type Headache. *The Journal of Headache and Pain*, *8*(2), 71-76. https://doi.org/10.1007/s10194-007-0366-y

Silberstein, S. D., Lipton, R. B., & Sliwinski, M. J. (1996). Classification of Daily and Near-Daily Headaches. *Neurology*, *47*(4), 871-875. https://doi.org/10.1212/wnl.47.4.871

Smuts, J. A., Baker, M. K., Smuts, H. M., Stassen, J. M., Rossouw, E., & Barnard, P. W. A. (1999). Prophylactic Treatment of Chronic Tension-type Headache Using Botulinum Toxin Type A. *European Journal of Neurology*, *6*(S4). https://doi.org/10.1111/j.1468-1331.1999.tb00044.x

Tong, Y., Cui, S., & Sun, Y. (2015). Chinese Herbal Therapy for Chronic Tension-Type Headache. *Evidence-Based Complementary and Alternative Medicine*, *2015*, 1-4. https://doi.org/10.1155/2015/208492

Zheng, H., Gao, T., Zheng, Q., Lu, L., Hou, T., Zhang, S., Zhou, S., Hao, X., Wang, L., Zhao, L., Liang, F., & Liu, Y. (2022). Acupuncture for Patients With Chronic Tension-Type Headache. *Neurology*, *99*(14). https://doi.org/10.1212/wnl.0000000000200670

E-ISSN: 3041-8542