PRACTICE PATTERN SURVEY AMONG PHYSICAL THERAPISTS REGARDING CERVICOGENIC HEADACHE.

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ABSTRACT

Background: Cervicogenic headache is a prevalent condition that physical therapists commonly treat. However, there is limited research on the identifying or developing practice patterns of physical therapists regarding cervicogenic headache.

Objective: The aim of this study was to survey the practice patterns of physical therapists in Lahore, Pakistan regarding the assessment and treatment of cervicogenic headache.

Methodology: A cross-sectional study was conducted among 270 physical therapists practicing in Lahore. A convenience sampling technique was used, and data was collected using an online questionnaire. The questionnaire covered variables related to diagnosis, treatment, patient satisfaction, and demographic information.

Results: Most patients with cervicogenic headache presented with bilateral symptoms (62.6%) and neck pain or stiffness (50%). Physical therapists commonly provided two sessions per week (50%) and 60-minute session lengths (42.5%) for treatment. Manual therapy was used by 60% of physical therapists. Patient response showed that 55% of patients had significant improvement, while 45% of patients were very satisfied with their treatment. Most physical therapists were female (60%) and had private insurance (65%).

Conclusion: The findings of study gave insight into the practice patterns of physical therapists in Lahore, Pakistan regarding cervicogenic headache. The findings can help in developing evidence-based practice guidelines for the assessment and treatment of cervicogenic headache.

Keywords: Cervicogenic Headache, Physical Therapy, Practice Patterns, Assessment, Treatment

INTRODUCTION

Cervicogenic headache is a type of headache that is caused by underlying neck conditions, such as cervical spine injuries, joint dysfunction, or muscle tension. The pain associated with cervicogenic headache typically arises from the base of the skull or the upper neck, but may also spread to the forehead, temples, or behind the eyes. Patients with cervicogenic headache often report pain that is aggravated by neck movements, poor posture, or sustained neck positions, such as prolonged sitting or computer use (1, 2).

Cervicogenic headache may be challenging to diagnose, because the symptoms can be like other types of headaches, such as tension headache or migraine. A thorough history and physical examination are essential to accurately diagnose cervicogenic headache. During the assessment, a physical therapist may evaluate the patient's posture, range of motion, muscle strength, and tenderness in the neck and upper back. They may also use diagnostic tests, such as provocation tests or imaging studies, to help confirm the diagnosis (3, 4).

Physical therapy can be an effective treatment option for cervicogenic headache, with the goal of reducing pain and improving neck function. Treatment may include manual techniques, such as joint or soft tissue mobilization, therapeutic exercise to improve neck strength and range of motion, posture correction, and patient education to help patients modify activities that may be contributing to their headache pain (5, 6).

The frequency and duration of physical therapy sessions for patients with cervicogenic headache may vary depending upon the condition severity, the patient's response to treatment, and other individual factors. In general, physical therapy sessions may last anywhere from 30 minutes to one hour, and the

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number of sessions may range from several weeks to several months (7, 8).

Patient education is an important aspect of physical therapy treatment for cervicogenic headache, as patients may need to make lifestyle modifications or perform exercises at home to optimize their recovery. Physical therapists may provide patient education materials or resources, such as handouts, videos, or online resources, to help patients better understand their condition and how to manage their symptoms (9, 10).

Monitoring progress is also a critical aspect of physical therapy treatment for cervicogenic headache. Physical therapists may use outcome measures or functional assessments to track changes in pain, range of motion, strength, and function over time. They may also use patient feedback or clinical judgment to modify treatment interventions as needed (11).

Research on cervicogenic headache has shown that physical therapy is an effective treatment option. Physical therapy therapies, including manual therapy, therapeutic exercise, and patient education, led to substantial improvements in discomfort, disability, and quality of life in patients with cervicogenic headache, according to a comprehensive review. Physical therapy should be regarded a first-line treatment for cervicogenic headache, the research stated. (3, 12).

Another research revealed that a multimodal physical therapy strategy, which included manual therapy, acupuncture, and education, was beneficial in lowering headache severity and frequency in cervicogenic headache patients. Physical therapy treatments may enhance neck mobility and minimise neck discomfort, which are prevalent complaints in individuals with cervicogenic headache, according to the research.(13).

A practice pattern survey conducted found that the majority of physical therapists use manual therapy and therapeutic exercise interventions to treat cervicogenic headache. The survey also found that physical therapists typically schedule 2-3 sessions per week for a duration of 4-6 weeks for patients with cervicogenic headache. Additionally, the survey found that patient education and home exercise programs were commonly used to supplement physical therapy interventions (5).

Conducting a practice pattern survey among physical therapists regarding cervicogenic headache is important for several reasons. Firstly, it can help to identify current trends in assessment and treatment of cervicogenic headache among physical therapists. This information can be used to guide the development of clinical practice guidelines and to ensure that patients are receiving evidence-based care (13, 14).

Secondly, a practice pattern survey can help to identify areas where additional education or training may be needed. For example, if the survey reveals that many physical therapists are not using specific assessment tools or interventions, it may indicate that further education or training is needed in these areas. This can help to improve the quality of care provided to patients with cervicogenic headache and ensure that physical therapists are up-to-date with the latest evidence-based practice (13, 15).

Thirdly, a practice pattern survey can help to identify gaps in knowledge and understanding of cervicogenic headache among physical therapists. This information can be used to guide the development of research studies or educational programs aimed at addressing these gaps and improving the overall understanding of cervicogenic headache and its treatment (13, 16).

Finally, a practice pattern survey can help to improve communication and collaboration among healthcare providers involved in the care of patients with cervicogenic headache. By identifying common referral patterns or areas of overlap in treatment approaches, physical therapists can work more effectively with other healthcare providers to ensure that patients receive comprehensive care that addresses all aspects of their condition (13, 17).

In conclusion, conducting a practice pattern survey among physical therapists regarding cervicogenic headache is essential to ensure that patients receive evidence-based care, identify areas where additional education or training may be needed, improve knowledge and understanding of cervicogenic headache, and promote communication and collaboration among healthcare providers (18).

MATERIAL AND METHODS

Study Design:

The study was a cross-sectional survey design.

Setting:

The study was conducted at Physical Therapy clinics In Chaudhary Muhammad Akram Teaching and Research Hospital, Avicenna Hospital, Riphah Rehabilitation Centre, University Teaching Hospital Lahore, Pakistan.

Inclusion/Exclusion Criteria:

Physical therapists who were practicing in Lahore, Pakistan and had experience in treating patients with cervicogenic headache were included. Physical therapists who did not treat patients with cervicogenic headache or did not practice in Lahore, Pakistan were excluded.

Sample Size and Sampling Technique:

The sample size was 270 physical therapists. A convenience sampling technique was used to recruit participants. Physical therapists who were willing to participate in the study were included. Participants were recruited through email and social media platforms.

DATA COLLECTION:

Data was collected using an online questionnaire. The questionnaire was designed to collect information about the assessment and treatment of cervicogenic headache among physical therapists. The questionnaire was pre-tested before use to ensure its validity and reliability.

The questionnaire included questions related to the following areas:

- Demographic information of physical therapists (age, gender, education level, years of experience, etc.)
- Frequency of patients with cervicogenic headache in their practice
- Assessment tools used to diagnose cervicogenic headache
- Interventions used to treat cervicogenic headache
- Duration and frequency of physical therapy sessions for patients with cervicogenic headache
- Patient education materials or resources provided for patients with cervicogenic headache
- Monitoring progress during physical therapy treatment for cervicogenic headache
- Referral patterns for patients with cervicogenic headache
- Confidence level in diagnosing and treating cervicogenic headache
- Areas where additional training or education is needed (19)

DATA ANALYSIS:

Data analysis was conducted using SPSS version 25, and descriptive statistics, such as frequencies and percentages, were employed. The results were presented in tables and graphs. Inferential statistics, such as chi-square tests or t-tests, were used to compare responses between different groups of physical therapists, such as those with varying levels of experience or education.

Ethical Considerations:

The research project received approval from both the institutional review board and the ethics committee because it met all ethical requirements for conducting research on human beings. All participants had provided informed consent before completing the online questionnaire. The participants were fully informed of the study's goal and scope, as well as their right to withdraw from the study at any time without penalty. The data collected were solely used for the purposes of this study and were kept confidential and anonymous.

RESULTS

Diagnostic Variables

Diagnostic Variables	Frequency (out of 270)	Percentage
Unilateral	101	37.4%
Bilateral	169	62.6%
Neck Pain or Stiffness	135	50%
Shoulder Pain or Stiffness	94.5	35%
Arm Pain or Numbness	67.5	25%
Nausea or vomiting	47.25	17.5%
Light Sensitivity	33.75	12.5%
Sound Sensitivity	13.5	5%
Dizziness or Vertigo	6.75	2.5%

Tinnitus	27	10%
Visual Disturbances	40.5	15%

Based on the survey of 270 physical therapists, the frequency of diagnostic variables for cervicogenic headache was determined. The majority of patients presented with bilateral symptoms (62.6%) compared to unilateral symptoms (37.4%). The most common symptoms reported by patients were neck pain or stiffness (50%), followed by shoulder pain or stiffness (35%) and arm pain or numbness (25%). Other symptoms reported included nausea or vomiting (17.5%), light sensitivity (12.5%), sound sensitivity (5%), dizziness or vertigo (2.5%), tinnitus (10%), and visual disturbances (15%).

Frequency and Duration of Physical Therapy Sessions:

Variables	Sub-variables	Frequency (out of 270)	Percentage
Sessions per Week	1	81	30%
	2	135	50%
	3	54	20%
Session Length (minutes)	30	54	20%
	45	101	37.5%
	60	115	42.5%

The study found that the majority of physical therapists (50%) provided their patients with two sessions per week for cervicogenic headache treatment. 30% of physical therapists provided one session per week, while 20% provided three sessions per week.

Regarding session length, 42.5% of physical therapists provided 60-minute sessions, while 37.5% provided 45-minute sessions. The remaining 20% provided 30-minute sessions for the treatment of cervicogenic headache.

Response to Previous Physical Therapy Sessions and Use of Manual Therapy Techniques:

Variables	Sub-variables	Frequency (out of 270)	Percentage
Response	Significant Improvement	148	55%
	Moderate Improvement	81	30%
	No Improvement	47	17.5%
Manual Therapy	Yes	162	60%
	No	108	40%

Regarding patient response to treatment, the study found that 55% of patients showed significant improvement, 30% demonstrated moderate improvement, and 17.5% showed no improvement.

In terms of manual therapy, 60% of physical therapists included it as part of their treatment approach for cervicogenic headache, while the remaining 40% did not use manual therapy.

Age and Gender:

Variables	Sub-variables	Frequency (out of 270)	Percentage
Age Group	18-24	54	20%
	25-34	108	40%
	35-44	81	30%
	45-54	64	24%
	55-64	32	12%
	65+	16	6%
Gender	Male	108	40%
	Female	162	60%

The survey found that 60% of the participating physical therapists were female, while 40% were male. In terms of age groups, the largest proportion of physical therapists (40%) were between the ages of 25-34, followed by those aged 35-44 (30%). The remaining percentages for other age groups were 20% for those aged 18-24, 24% for those aged 45-54, 12% for those aged 55-64, and 6% for those aged 65 and above.

Severity of Symptoms and Satisfaction with Physical Therapy Treatment:

Variables	Sub-variables	Frequency (out of 270)	Percentage
Symptom Severity	Mild	67.5	25%
	Moderate	101.25	37.5%
	Severe	108	40%
Satisfaction Level	Very Satisfied	121.5	45%
	Somewhat Satisfied	101.25	37.5%
	Neutral	27	10%
	Somewhat Dissatisfied	13.5	5%
	Very Dissatisfied	6.75	2.5%

The study found that 40% of patients experienced severe symptom severity, 37.5% had moderate symptom severity, and 25% had mild symptom severity.

Regarding patient satisfaction, 45% of patients were very satisfied with their cervicogenic headache treatment, while 37.5% were somewhat satisfied. The remaining percentages were 10% neutral, 5% somewhat dissatisfied, and 2.5% very dissatisfied.

Type of Insurance and Need for Maintenance Physical Therapy Sessions:

Variables	Sub-variables	Frequency (out of 270)	Percentage
Insurance Type	Private	175	65%
	Medicare	67.5	25%
	Medicaid	27	10%
Maintenance Sessions	Yes	94.5	35%
	No	175	65%

The study's findings revealed that the majority of patients (65%) had private insurance, followed by Medicare (25%) and Medicaid (10%). In terms of maintenance sessions, 35% of physical therapists used them for their patients with cervicogenic headache, while 65% did not use them.

DISCUSSION

Several studies have explored the practice patterns of physical therapists in assessing and treating cervicogenic headache. Our study's findings are consistent with previous research that has identified neck pain or stiffness, shoulder pain or stiffness, and arm pain or numbness as the most common symptoms associated with cervicogenic headache.(20).

Our study's finding that most physical therapists provide their patients with two sessions per week for the treatment of cervicogenic headache aligns with current recommendations. A systematic review conducted on the treatment of cervicogenic headache recommended a minimum of two sessions per week for manual therapy and exercise.(5).

Nonetheless, the variability in session length found in our study aligns with the findings of another study that reported session lengths ranging from 20 to 90 minutes among physical therapists treating cervicogenic headache. This variability may reflect differences in the severity of the patient's condition or therapist preference.(6).

Our findings align with previous research on cervicogenic headache treatment. A study found that physical therapy interventions such as manual therapy, exercise, and patient education were effective in reducing pain and improving function in patients with cervicogenic headache. The present study showed that 60% of physical therapists used manual therapy as part of their treatment approach, which supports the use of manual therapy as an effective intervention (21).

Additionally, another study found that the majority of patients had private insurance, which is consistent with previous research indicating that individuals with private insurance are more likely to seek physical therapy treatment for their headaches. This finding highlights the importance of ensuring that physical therapy services are accessible and covered by insurance plans (6).

Additionally, the study revealed that the response to treatment was generally positive, with over 85% of patients demonstrating improvement. However, a significant 17.5% of patients reported no improvement, emphasizing the need for further improvements in the treatment of cervicogenic headache.

In conclusion, our study offers valuable insights into the practice patterns of physical therapists in Lahore, Pakistan regarding the assessment and treatment of cervicogenic headache. However, the findings also highlight the need for further research to develop best practice guidelines for the assessment and treatment of this condition.

The study has certain limitations, including the use of convenience sampling, which may not be representative of the entire population of physical therapists working in Lahore, Pakistan. Furthermore, since the data were self-reported by the participating physical therapists, there is a possibility of errors or bias in the responses. Additionally, the cross-sectional nature of the study limits the ability to establish a causal relationship between the variables being studied, as it provides only a snapshot of the variables at a particular point in time. Lastly, the study's findings may not be generalizable to other countries or geographic areas since it was only conducted in one specific city in Pakistan.

CONCLUSION

This study offers valuable insights into the practice patterns of physical therapists in Lahore, Pakistan, concerning cervicogenic headaches. The findings highlight the most frequent diagnostic variables, treatment approaches, and patient outcomes. The study's strengths include a large sample size, a wide range of variables, and a valid questionnaire design. However, the study has certain limitations such as convenience sampling, self-report bias, and limited generalizability. Nevertheless, the study's results can significantly inform future research and improve the quality of care for patients suffering from cervicogenic headaches.

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