Chronic Management of Primary Headaches in Primary Care: A Literature Review

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Introduction

Headaches are among the most frequent symptoms in primary care consultations, with a significant burden on public health. In Brazil alone, headaches account for 9% of acute problem consultations[1]. Furthermore, a study has shown that 6.1% of the Brazilian population lives with chronic daily headaches[2].

Given that primary healthcare is founded on the principles of longitudinality, and considering the extensive literature on preventive therapies for primary headaches, these services present a valuable opportunity to provide comprehensive care for these patients.

This study presents a literature review focused on prophylactic possibilities for primary headaches within the context of primary healthcare.

Objectives

This study aims to evaluate the existing literature on prophylactic treatments for primary headaches. Our specific objectives are:

- To analyze the trends of previously conducted studies and identify potential gaps in the current literature.
- To assess the strategies found and discuss their potential applicability within the Brazilian primary healthcare system.

Methods

This literature review was conducted through searches in the Cochrane Library, PubMed, SciELO, and BVS (Biblioteca Virtual em Saúde) databases. Controlled descriptors and their synonyms related to "primary care" and "primary headaches" were used. Articles were excluded if they addressed solely secondary headaches, focused solely on acute management, or did not involve a primary care context. Duplicates, articles older than 10 years, and those not meeting relevance criteria were excluded. The selection process is described in Figure 1, resulting in 21 articles included in the final analysis.

Figure 1. Studies selection

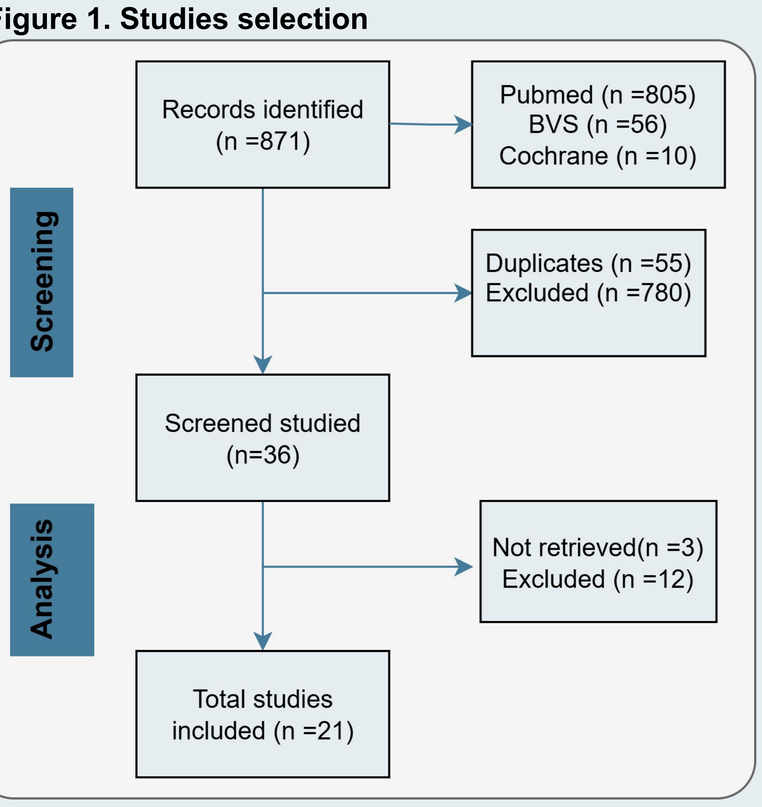

Table 1. Included studies

Authors	Origin	Study design	Headaches	Intervention	Population
Treadwell, 2025	USA	Systematic review and meta-analysis	Migraine	NPIs	Not specific
Çöme, 2025	Turkey	RCT	Migraine	Alternated nasal breathing (ANB)	Adults
Jonker, 2022	UK	Cohort	Migraine	Headache diary app	Adults
Xie, 2022	China	RCT	Migraine	Tai Chi	Adult women
Martin, 2021	USA	Review	Migraine	Pharmacological and NPIs	Not specific
Ashina, 2021	UK	Systematic review	Migraine	Pharmacological and NPIs	Not specific
Minen, 2020	USA	RCT	Migraine	Progressive muscle relaxation	Not specific
Walter, 2020	USA	Review	Primary headaches	Pharmacological and NPIs	Not specific
Blumenfeld, 2020	USA	Manuscript	Migraine	Pharmacological	Not specific
Biglione, 2019	USA	Review	Migraine	Aspirin	Not specific
Aguirrezabal, 2019	Spain	RCT	Migraine	Group education	Adults
Robblee, 2019	USA	Review	Migraine	NPIs	Not specific
Steiner, 2019	UK	Consensus	Primary and secondary headaches	Pharmacological and NPIs	Not specific
Becker, 2017	Canada	Systematic review	Primary and secondary headaches	Pharmacological and NPIs	Not specific
Millstine, 2017	USA	Systematic review	Migraine and tension	NPIs	Adults
Silberstein, 2016	USA	Review	Migraine	Pharmacological and NPIs	Adults
Veenstra, 2015	Netherlands	RCT	Migraine	Nursing support	Adults
Martin, 2015	Australia	RCT	Migraine and tension	Cognitive behavioral therapy	Adults with depression
Becker, 2015	USA	Review	Primary and secondary headaches	Pharmacological and NPIs	Not specific
Singer, 2015	USA	Review	Migraine	NPIs	Not specific
Starling, 2015	USA	Review	Migraine	Pharmacological and NPIs	Not specific

Legend: NPIs: Non-pharmacological interventions; RCT: Randomized controlled trial

Results

In Figure 2, we present the thematic prevalence among the reviewed articles based on the type of headache addressed. All articles covered migraine, with a minority of those with different specifications.
We divided the prophylactic interventions found into
1) Pharmacologicals, such as antidepressants, beta-blockers, anticonvulsants and OnabotulinumtoxinA;
2) Non-pharmacological (mainly cognitive behavioral therapy, biofeedback, relaxation techniques and lifestyle modification).
One study addressed a structural intervention involving nursing team support.
The complete list and prevalence of these interventions are detailed in Table 2.

Figure 2. Headache types prevalence

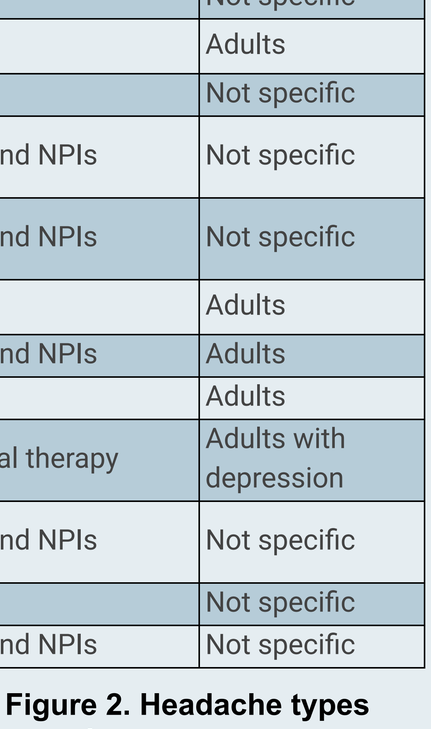

Table 2. Interventions

Pharmacological(n=10)						NPI(n=18)					
AD	90%	AC	90%	COC	20%	CBT	66.6%	Mindfulness	22.2%	Diary	33.3%
BB	90%	ASA	10%	Other	80%	ANB	5.5%	Biofeedback	61.1%	RT	61.1%
OxA	90%	CGRP	50%			LM	61.1%	Education	50%	Tai Chi	11.1%
										Other	27.7%

Legend: AD: Antidepressants; BB: Beta-blockers; Oxa: OnabotulinumtoxinA; AC: Anticonvulsants; ASA: Aspirin; COC: Combined oral contraceptives; LM: Lifestyle modifications; RT: Relaxation techniques

Discussion

Medications such as beta-blockers, antidepressants, and anticonvulsants are readily available in public Brazilian healthcare systems, according to Rename[3], with some classified as basic components that can be effectively initiated and monitored.
We emphasize the critical role of patient education, lifestyle modifications (e.g., sleep hygiene, stress management), and simple tools like headache diaries, which empower individuals and improve treatment adherence. Furthermore, integrating practices like cognitive-behavioral therapy and acupuncture offers significant benefits in reducing headache frequency and disability.
Some primary care resources in Brazil represent a possible mean to included said NPIs, such as eMulti[4] and Programa Academia da Saúde (PAS)[5].

Conclusions

The main findings of this review are

1. There is an undervaluing of prophylactic strategies for tension-type headaches.
2. Non-pharmacological approaches represent a valuable therapeutic opportunity that can be effectively integrated into primary care.

Further studies are needed to evaluate the efficacy of interventions within primary healthcare settings. Additionally, given the significant role of medication overuse headache (MOH) found in the literature, its influence in this context requires further exploration.

References

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