



Quality of life in women with migraine: a systematic review

Adriana de Almeida Soares¹, Yasmine Maria Leódido Fortes¹, Wallyson Pablo de Oliveira Souza²,
Raimundo Pereira Silva-Néto^{1,2}

¹Graduate Program in Biomedical Sciences of the Federal University of the Parnaíba Delta, Parnaíba, Brazil

²Federal University of the Parnaíba Delta, Parnaíba, Brazil



Adriana de Almeida Soares
nutrigourmet.adriana@gmail.com

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Introduction

Several chronic diseases interfere with quality of life (QoL), including migraine, especially in women who are the most affected. However, effective therapeutic interventions are capable of modifying the disease.

Objective

Our objective was to review the literature on QoL in women with migraine, before and after treatment

Methods

This study was a systematic review of clinical trials on migraine in women and QoL published between November 2019 and October 2024. The research was carried out in the online database PubMed, using the descriptors "migraine in women" and "quality of life".

Results

Eight articles were analyzed. They described 1,337 women with migraine aged 18 to 50 years. There was an improvement in QoL after therapeutic intervention, both drug and non-drug.

Conclusions

Women with migraine have their QoL impaired, but therapeutic interventions can modify the disease.



Introduction

The term “quality of life” (QoL) possibly first appeared in medical literature in the 1930s, but appeared in the MEDLINE database from 1977 onwards (1). As of this writing, there have been 2,716 articles published on migraine and QoL. According to the WHO, QoL is the perception that an individual has about their position in life, within the context of the cultural and value systems in which they are inserted and in relation to their objectives, expectations, standards and concerns (2). QoL is categorized into five dimensions: physical well-being, material well-being, social well-being, emotional well-being, and development and activity (3).

Several chronic diseases interfere with QoL, including migraine, which is defined as an abnormal neurovascular reaction that occurs in a genetically vulnerable organism. It manifests clinically through recurrent episodes of headache and associated manifestations dependent on triggering factors (4). According to the frequency of headache attacks, migraine is classified as episodic or chronic (5).

Migraine has a prevalence in Brazil of 15.2% (6). It is not a fatal disease, but it is the second biggest cause of years lived with disability in the world, deserving attention for the damage it causes. It is commonly overlooked by both patients and doctors. If migraine is not adequately treated, there is a major socioeconomic impact and a reduction in patients' QoL. The main consequences of not treating migraine are disability, loss of work days, decreased productivity, increased health service costs and difficulties in interpersonal relationships (7).

Several studies have shown that therapeutic interventions, whether pharmacological (8) or non-pharmacological (9–13), are capable of modifying the quality of life of women with migraine. The aim of this study was to review the literature on QoL in women with migraine, before and after treatment.

Method

This study was a systematic review of clinical trials on migraine in women and QoL published between November 2019 and October 2024. The research was carried out in the online database PubMed, using the descriptors “migraine in women” and “quality of life”. The search period was defined as the last 5 years because the criteria used to diagnose migraine were those of the latest classification published in 2018 (5).

Articles written in English that addressed the discussion of migraine, both episodic and chronic, in women aged

between 18 and 50 years and QoL were included. Editorials, commentaries, letters to the editor, case reports, review articles, systematic reviews or those that did not contain accurate information were excluded.

Twenty-three articles were found, but after reading the abstracts, four were excluded as they did not meet the inclusion criteria. The full texts of the 19 included articles were read. At this stage, 12 articles were excluded because there were men in the sample ($n=7$), they were study protocols ($n=4$) or they did not address QoL ($n=1$). There were 7 articles left that were analyzed in this review (Figure 1).

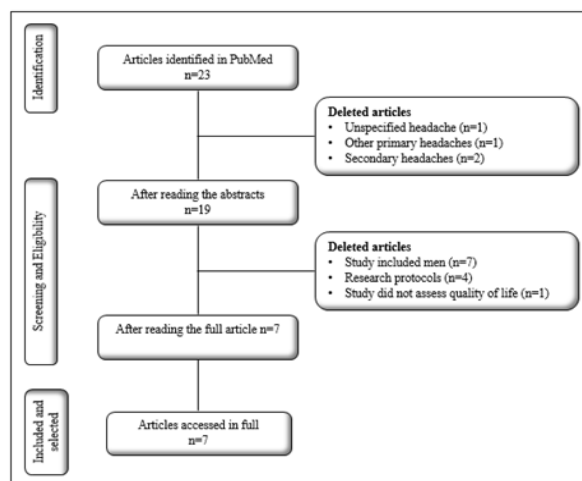


Figure. 1. Flowchart of the selection of articles included in the review

Results

Seven articles were analyzed in this review (9–14). They described 1,316 women with migraine aged 18 to 50 years. In six articles, corresponding to 810 women, the primary and secondary outcomes were, respectively, to evaluate changes in the characteristics of headache and in the QoL of women with migraine, pre and post intervention. Therapeutic interventions consisted of drug treatment with monoclonal antibodies (57%) or non-drug treatment consisting of diet therapy (41%) and physiotherapy technique with connective tissue massage (2%). In most therapeutic interventions there was an improvement in QoL. In a single article there was no intervention, but the sample composed of 506 women was only subjected to a QoL assessment questionnaire (Table 1).



Table 1. Assessment of quality of life of 1,316 women with migraine aged between 18 and 50 years

Authors	Type of study	Sample	Intervention	Results	Conclusions
MacGregor et al., 2024 ^[8]	Double-blind, randomized, placebo-controlled study	n=462	146 women used galcanezumab 120mg/month and 316 used placebo for 6 months	There was a reduction in headache attacks ($p<0.001$) and an improvement in QoL ($p<0.001$) in the group that used galcanezumab	Results suggest that galcanezumab is an effective preventive treatment option to reduce the impact of migraine
Arab et al., 2022 ^[9]	Randomized controlled, parallel-group clinical trial	n=102	51 women used the DASH diet and 51 the usual diet (control) for 12 weeks	There was no change in QoL, only a reduction in the frequency ($p=0.025$) and severity ($p<0.001$) of migraine attacks in the DASH group	Evidence supports the benefits of the DASH diet in improving migraine health outcomes in women
Vajdi et al., 2024 ^[10]	Double-blind, randomized, placebo-controlled study	n=80	40 women used 10g of inulin and 40 used placebo (control) for 12 weeks	There was a reduction in severity ($p=0.004$), duration ($p=0.023$), frequency ($p<0.001$) and HIT-6 score ($p<0.023$) in the inulin group	There is evidence that inulin supplementation improves migraine symptoms and QoL in women with migraine.
Babapour et al., 2022 ^[11]	Double-blind, randomized, placebo-controlled study	n=88	44 women used 50 mg of isoflavones and 44 used placebo for 8 weeks	There was a decrease in the frequency ($p<0.001$) and duration ($p<0.001$) of migraine attacks and in CGRP levels ($p=0.002$) compared to the placebo group. There was an improvement in QoL ($p<0.001$)	Soy isoflavone supplementation may be considered a complementary treatment for women with migraine to reduce headache attacks and the impact of the disease.
Celenay et al., 2023 ^[12]	Prospective, randomized, placebo-controlled study	n=16	8 women were in the EP and CTM group for 4 sessions per week and 8 were only in the EP group (control) for one session	The CTM group showed significant change in pain, medication use and decreased HIT-6 and MIDAS scores compared to the control ($p<0.05$)	CTM can be considered a non-pharmacological and complementary therapy for migraine
Dzator et al., 2022 ^[13]	Double-blind, randomized, placebo-controlled crossover study	n=62	Patients consumed 75 mg of resveratrol or placebo twice daily for 3 months. They were then switched to the alternative treatment for another 3 months.	There was no significant difference in the number of migraine days ($p=0.895$) or in QoL.	There was no improvement in migraine-related severity or QoL. The findings do not exclude the potential of resveratrol at different doses or supplementation periods to alter these outcomes.
Luo et al., 2022 ^[14]	Estudo transversal	n=506	Measurement of QOL using the SF-36 in 109 patients with MM and 397 with NMM	There were worse scores in the assessment of QOL in women with MM ($p<0.05$)	Women with MM had worse QoL than women with NMM

Note: QoL: Quality of Life; DASH: Dietary Approaches to Stop Hypertension; HIT-6: Headache Impact Test; CGRP: calcitonin gene related peptide; CTM: connective tissue massage; EP: educational program; MIDAS: Disability with Migraine Disability Assessment Scale; SF-36: Short-Form Health Survey; MM: menstrual migraine; NMM: non-menstrual migraine.



Discussion

Migraine is a headache disorder that has a significant impact on patients' QoL. In the 2016 Global Burden of Disease study, migraine was classified as a debilitating disease and the second leading cause of disability (15). It affects more than 20% of people at some point in their lives, but remains underdiagnosed (16).

The prevalence of migraine worldwide is estimated to be around 12% to 15% of the general population, with the highest occurrence observed among individuals aged 18 to 44 years. Women are more susceptible to migraine compared to men, with prevalence estimates ranging from 5 to 25% worldwide in the 30–39 year age group (6, 17–19).

This disease interferes with the lives of patients, especially women, harming their QoL and causing a significant socioeconomic impact (20). Patients often miss work because of the severity of the disease, resulting in reduced productivity (21).

Despite advances in migraine therapy, with the emergence of several preventive medications in recent decades, many patients continue to suffer from their pain (22). Several social factors contribute to patients with migraine not seeking a headache specialist, including lack of information about their disease and lack of access to the health system.

In this review, it was found that migraine treatment was essential to improve the QoL of women with migraine. Therapeutic interventions were pharmacological (8) or non-pharmacological (9–13) and caused a reduction in the frequency, duration and severity of headache attacks and an improvement in QoL and mental health.

This review showed evidence that preventive treatment of women with migraine improved not only the frequency, severity and duration of headache attacks, but also QoL. Despite the existence of several drugs that are used in the preventive treatment of migraine, both episodic and chronic (23, 24), in this review, 43% of women used non-pharmacological measures, consisting of diet therapy and massage techniques (9–13).

Conclusions

Women with migraines experience a reduced quality of life, but therapeutic interventions can alter the course of the condition.

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Adriana de Almeida Soares
<http://orcid.org/0000-0001-7002-6458>
 Yasmine Maria Leódido Fortes
<https://orcid.org/0000-0001-9642-0330>
 Wallyson Pablo de Oliveira Souza
<https://orcid.org/0000-0003-3122-9484>
 Raimundo Pereira Silva-Néto
<https://orcid.org/0000-0002-2343-9679>

Author's contribution: Conception and design: AAS and RPSN; Acquisition of data: AAS, YMLF, and WPOS; Analysis and interpretation of data: AAS and RPSN; Drafting the manuscript: AAS and YMLF; Revising it for intellectual content: AAS and RPSN; Final approval of the completed manuscript: AAS, YMLF, WPOS, and RPSN.
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