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Quality of life of Iranian patients with headache based on different provinces: A systematic review and meta-analysis

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Abstract

Objective: Headache is one of the most prevalent medical complaints and debilitating nervous system disorders. The aim of this systematic review and meta-analysis is to evaluate Quality of life of Iranian patients with headache based on different provinces.**Methods:** The researches for founding related studies since the formation of the database till 2018 (without time limit) in English and Persian were done by two researchers in international databases (Web of Science, PubMed, Scopus, and Google Scholar) and national databases (Magiran, SID).**Results:** Studied was applied to 275 patients. 4 out of 5 studies showed temporary data and one was longitudinal study. Generally, 5 studies from 4 provinces obtained that were qualified and reviewed. Among 5 studies, 2 studies were from Ahvaz and three from Tehran ,Isfahan and kermanshah respectively.**Conclusion:** The psychological disorders and stresses in people with Migraine are more common in people with anxiety, depression and lack of social support than in normal people. This leads them to have a low quality of living and the low quality of life is an effective factor in the onset of psychological disorders. The greater the psychological symptoms of anxiety and depression in these patients is, the lower the quality of their lives gets.**Keywords:** Quality of life , Iran , headache

Introduction

Headache is one of the most prevalent medical complaints and debilitating nervous system disorders. More than 90% of humans experience at least one headache attack during a year (1-3). Annually, 240 million people worldwide suffer from 1.4 billion headache attacks. Therefore, headache is a major objective for public health interventions (4).

Among the causes of headache, Migraine is the most common type of chronic headache, which, according to the criteria of the International Headache Society, is a recurring, benign, often single-sided, and throbbing

ache which lasts for 4 to 72 hours (5-7). It is caused by stereotype stimulus and often involves nausea, vomiting and other symptoms of neurological use that appear in various forms(6).

The World Health Organization defines quality of life as understanding people's living conditions in the framework of culture and the dominant values in the society in line with their goals, expectations, standards and interests of one's self; so, the quality of life is closely linked to the physical, mental, personal beliefs, self-esteem and social communication. In this regard, the results of studies have shown that the higher the anxiety and depression symptoms among the patients, the lower the quality of life is(7-9).

Materials and Methods

Eligibility criteria

Methods used for systematic revision in accord with explained instruction in the PRISMA checklist were established. Cross-sectional studies, case-control, and cohort methods were applied in this study, however, case series, letter to editors, case reports, clinical trials, study protocols, systematic review, and narrative review were not applied to it. Output: the main aim of this study was heightening the quality of life. The output was collected as it has been reported. In the sampling and sample size methods, all observational studies with any design in sampling and survey, in the systematic review were brought. The minimum size required was bigger than or equal to 25 patients.

Search Strategy

The researches for founding related studies since the formation of the database till 2018 (without time limit) in English and Persian were done by two researchers in international databases (Web of Science, PubMed, Scopus, and Google Scholar) and national databases (Magiran, SID). For preventing the literature saturation, considered studies source list, and relevant reviews found in researches were studied. Particular strategies were made by Health Science Librarian with a specialty in the systematic review search using the MESH clauses and free expression clauses according to the PRESS standards. After the finalizing of the MEDLINE strategy, it was adjusted for searching in other databases. In the same way, in order to find recent systematic reviews or those that are on the PROSPERO was searched. Keywords used in search strategy were: Life Quality, Health-Related Quality of Life, Health-Related Quality of life, Quality of Life and Iran which commingled with boolean operators like AND, OR, and NOT.

Study Selection and Data Extraction

Two researchers with considering qualifying conditions studied the titles and abstracts independently. After removing recurrent studies, in accord with qualifying conditions, the full text of studies were examined and information was asked from authors as needed. General information (first author, province, publication year), and study specifications (sampling method, questionnaire design, information collection method, conditions, sample

size, and risk of bias), and output scales (the quality of life) were collected, too.

Quality Assessment

Hoy et al tool was used for assessment of methodological quality and risk of bias in any observational study. This 10 items tool, for assessment of studies quality in two dimensions: external validation (assesses 1 to 4 items, target population, sampling frame, and the minimum participation bias), and internal validation (it assesses 5 to 9 items in information collection, define the problem, study tool, and data collection type and item 10 controls bias concerning data analysis). Risk of bias was assessed independently by two researchers. Differences were resolved with consensus.

Data Collection

After the systematic review, all eligible studies were collected. Data was mixed with Forest Plot chart. Random effects model with the overall quality of life were examined. Earlier studies disproportion was checked by I test. For determining the inconsistencies according to participants, their gender and age, subgroups were analyzed. Meta-analysis was done by the STATA 14 software.

Results

Study Selection

Generally, 176 articles were achieved from different databases with the early search. Among 176 non-repetitive studies in the process of examining the title and abstract, 162 studies excluded with irrelevant titles. Among 14 studied, 5 were qualified. From 9 excluded studied 3 were review and 2 were Letter to editor and 4 didn't contain the minimum necessary for being included in the study.



PRISMA 2009 Flow Diagram

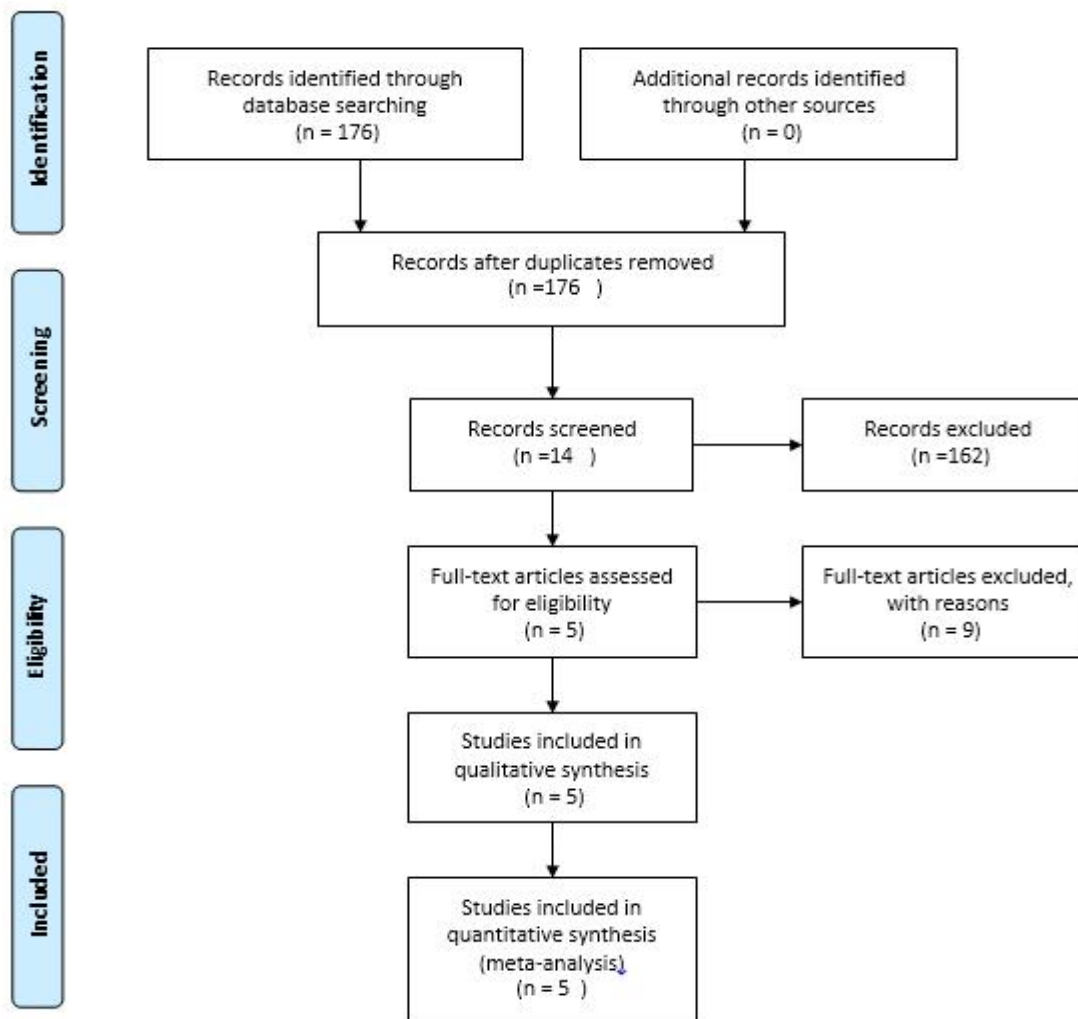


Fig 1. PRISMA flow diagram

Significance of the study

Studied was applied to 275 patients. 4 out of 5 studies showed temporary data and one was longitudinal study. Generally, 5 studies from 4 provinces obtained

that were qualified and reviewed. Among 5 studies, 2 studies were from Ahvaz and three from Tehran, Isfahan and kermanshah respectively. In terms of tools used in this study, among 5 studies, MSQ, SF-36, AND Hit-6 were used in 5 studies.

Table 1: Characteristics of final included studies

First author	Publication year	participants	Questioner	Mean and SD of quality of life	City or province
Zarandi ⁽¹⁸⁾	2014	40	SF-36	49.23±15.80	Tehran
Zarandifar ⁽¹⁹⁾	2013	106	MSQ	47.15±2.37	Isfahan
Safarrinia ⁽²⁰⁾	2014	20	SF-36	101.9±15.02	Ahvaz
Peiro ⁽²¹⁾	2015	9	Hit-6	64±5.54	Kermanshah
Sohrobi ⁽²²⁾	2016	100	SF-36	62.23±2.9	Ahvaz

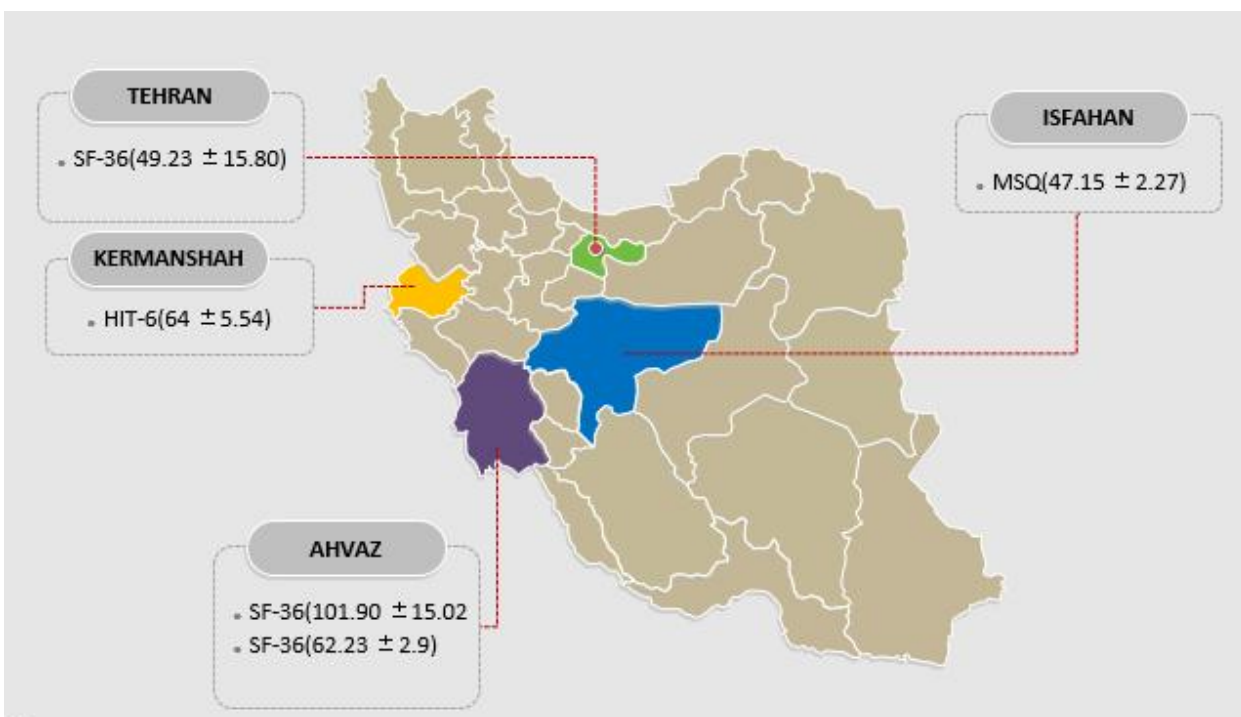


Fig 2. Quality of life of Iranian patients with headache based on different provinces

More than 50 % of the risk of bias studies have a shortcoming. Because of low quality, a study was excluded. In 5 studies, the most common data collection method was interview and self-evaluation. The most common place for studies was a hospital (n=5), (table 1)

The Quality of life

For collecting data, In 3 studies out of 5, The SF-36 questionnaire was applied, in result. Because of low quality, a study was excluded. In 2 studies, the MSQ and Hit-6 questionnaire were used for gathering data.

Discussion

This systematic review was made with the aim of determining the Quality of life of Iranian patients with headache based on different provinces, and by using of data set that has belonged to studies until October 2018. 5 studied out of 275 patients including those were in the last stage, too. Validity and reliability of all tools that were used have been approved in Iran. The treatment of Migraine consists of two acute and chronic forms. The purpose of acute treatment is to rapidly and effectively reduce the severity of acute Migraine and restore comfort to the patient. The purpose of chronic treatment is to reduce the severity,

number and duration of Migraine attacks in the long term to ultimately improve the patient's quality of life (10).

Since there is still no fixed and approved treatment for Migraine, most effective Migraine treatments are interventions that result in headache or prevent it from being repeated and severely activated (11). Preventive drug therapy with Serotonin receptor agonists, Calcium channel blockers and beta blockers, and drug therapies, are intended to relieve pain attacks and psychological treatment (12). No drug tolerance, lack of response or inadequate response to drug therapy and high drug costs have caused people with Migraine headaches not to be satisfied with prophylactic treatment of their headaches (13).

Quality of life is a dynamic and mental structure that compares the mental state of the past with the recent events in all the positive and negative aspects (14). Therefore, assessing the quality of life in Migraine sufferers leads to the understanding of the patient's health, ability to function and sense of well-being (15). It also helps us to consider the treatment methods of raising the quality of life of these people (16). The psychological disorders and stresses in people with Migraine are more common in people with anxiety, depression and lack of social support than in normal

people (17). This leads them to have a low quality of living and the low quality of life is an effective factor in the onset of psychological disorders. The greater the psychological symptoms of anxiety and depression in these patients is, the lower the quality of their lives gets.

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