Research Article

Quality of life of Iranian Epileptic patients: a systematic review and meta-analysis based on the different provinces

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Abstract

Keywords

Epileptic ,
Quality of life,
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Objective: Epilepsy is a common and chronic neurological disease and after the stroke, is the second most common basis of central nervous system diseases in the world. The aim of this systematic review and meta-analysis is to evaluate the Quality of life of Iranian Epileptic patients.

Methods: 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.

Results: Studied was applied to 489 patients. Generally, 6 studies from 4 provinces obtained that were qualified and reviewed. Among 6 studies, 2 studies were from Tehran, 2 from Mashhad and two from Ahvaz and yazd respectively.

Conclusion: Given the direct relationship between inefficiency and increased prostration in people with epilepsy, it is anticipated that reducing the value of inefficiency and increasing self-efficacy in these patients can decrease a large part of the problems caused by a feeling of helplessness and improve life quality.

Introduction

Epilepsy is a common and chronic neurological disease and after the stroke, is the second most common basis of central nervous system diseases in the world (1). Emergence of all types of epilepsy cause sudden disorder, loss of consciousness, abnormal contractions of the motor, sensation system ofthe affected patients (2-4).

In addition to physical illnesses,patients with epilepsy have other psychological and social problems, fear of mental deficiency, fear of dying during seizure and etc are a kind of these problems (5-7). This psychosocial problem exposed patients with epilepsy to various types of psychiatric disorders such as depression and anxiety (7-9).

Chronic epilepsy, with its quiet social, psychological and physical consequences that affects its own patients and their families, greatly reduces the life quality of

patients (10). Epilepsy affects all aspects of everyday life, and uncontrolled seizures can lead to irreversible changes (11).

Many studies have shown that factors associated with demographic characteristics, drugs, agents concerned with seizure and physiological variables are those that contribute to the poor life quality of patients with epilepsy (12).

Anti-epileptic drugs often slow down brain function, causes dizziness, sleepiness, fatigue, lethargy, anxiety, loss of concentration, and behavioral disorders (13). These factors can affect the life quality of stricken with epilepsy. The life quality isindividual perceptions of their physical, mental and social status (14). Adolescents with epilepsy also suffer from mental disorders, such as major depression and obsessive-compulsive disorder (15). Since chronic diseases are often not curable, now the quality improvement is an important aspect of treatment. Today, studies is about behavior, cognition and social disorders among children and teens given epilepsy, and its inception in early childhood, paid many attentions to scholars of psychology in controlled psychological and non- drug methods (12).

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 (15). 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, 253 articles were achieved from different databases with the early search. Among 253 non-repetitive studies in the process of examining the title and abstract, 231 studies excluded with irrelevant titles. Among 22 studied, 6 were qualified. From 16 excluded studied 5 were review and 6 were Letter to editor and 5 didn't contain the minimum necessary for being included in the study**.**
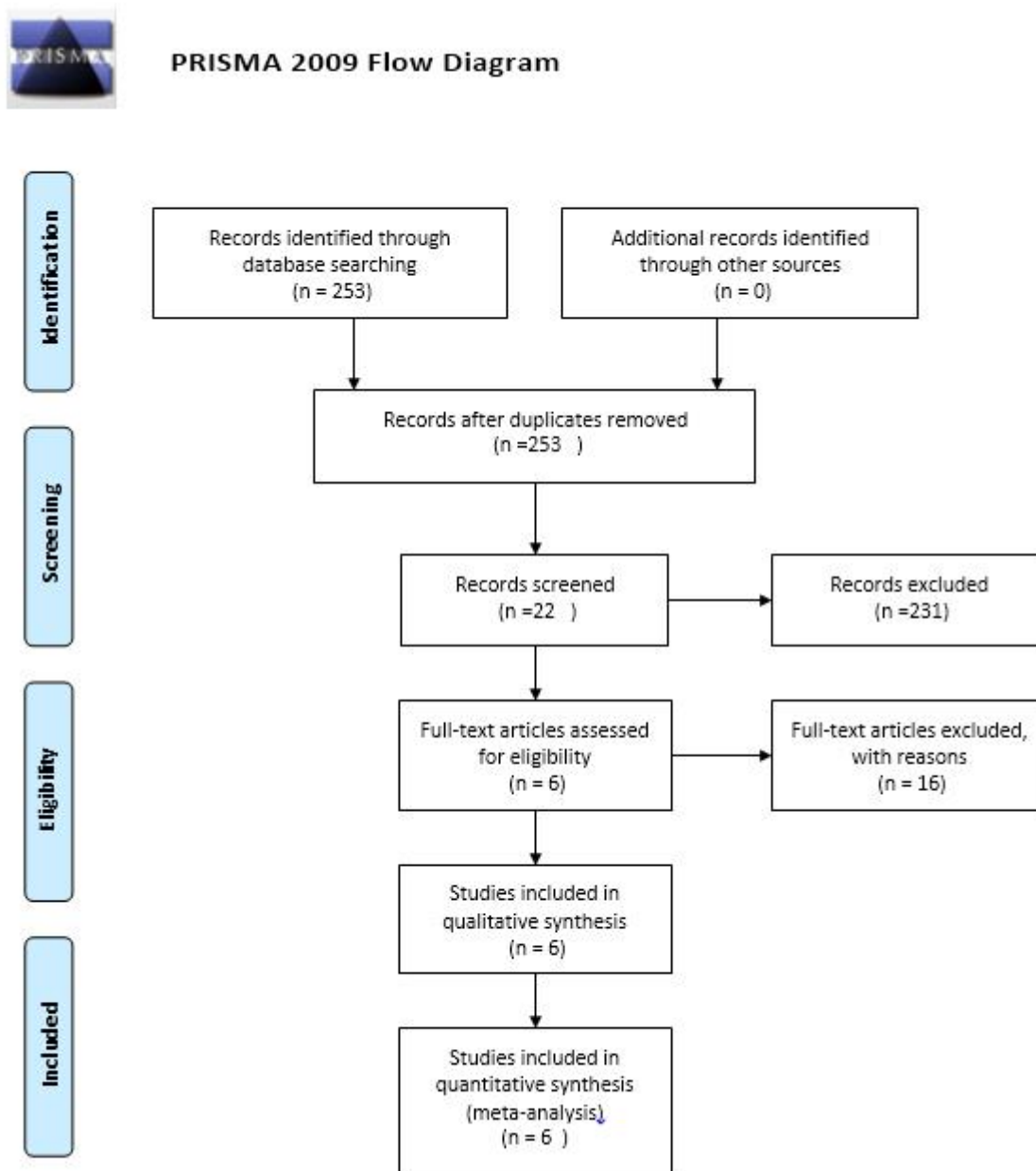

Fig 1.PRISMA flow diagram

Significance of the study

Studied was applied to 489 patients. Generally, 6 studies from 4 provinces obtained that were qualified and reviewed. Among 6 studies, 2 studies were from Tehran, 2 from Mashhad and two from Ahvaz and yazd respectively. In terms of tools used in this study, among 6 studies, 2 made by QOLIE-31-p and 3 made by QOLIE2-AD-48 and TMPeds , AND QOL-AD-48 .

Table 1:Characteristics of final included studies

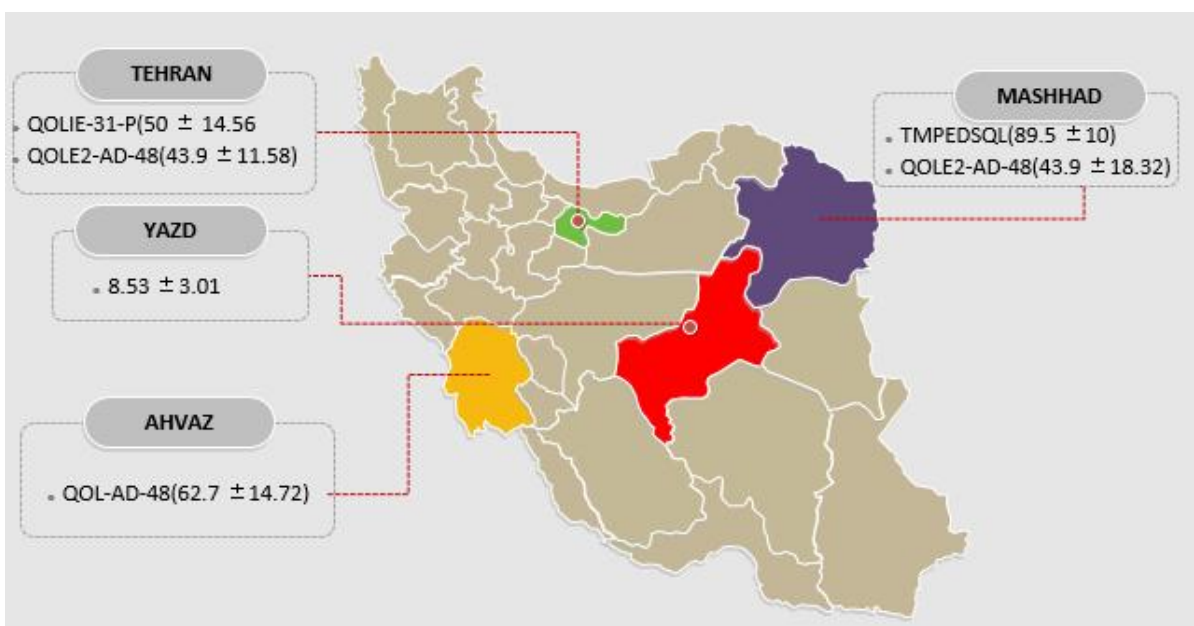| First author	Publication year	participants	Mean and SD of quality of life	Questioner	City or province
Ebrahimpour[19]	2018	10	8.53±3.01	-	Yazd
Shaafi[20]	2007	189	50±14.56	QOLIE-31-p	Tehran
Roudsari[21]	2011	180	43.9±11.58	QOLIE2-AD-48	Tehran
Fazel[22]	2015	30	89.5±10	TMPeds	Mashhad
Haji[23]	2015	60	47.4±18.32	QOL-IE-31	Mashhad
Dashtbozorgi[24]	2010	20	62.7±14.72	QOL-AD-48	Ahvaz

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

Most common sampling methods are easy sampling (n=6). More than 80 % 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=6), (table 1)

Discussion

This systematic review was made with the aim of determining the Quality of life of Iranian Epileptic patients based on the different provinces , and by using of data set that has belonged to studies until October 2018. 6 studied out of 489 patients including those were in the last stage, too. Among chronic diseases, epilepsy presents a unique challenge for the patient and his or her family. In previous surveys, it has been shown that epilepsy has a greater effect on emotional health than the life quality of other chronic diseases (16). Therefore, the life quality of individual with epilepsy is lower than the general population and in contrast of otherlife quality chronic diseases is reported to be the same or worse (17). Studies have shown that persistence of seizures and cognitive disorder are the most important declined factors of life quality. On the other hand, free from seizure, they have the best degree of satisfaction and their life quality may be as well as people without epilepsy (18). Given the direct relationship between inefficiency and increased prostration in people with epilepsy, it is anticipated that reducing the value of inefficiency and increasing self-efficacy in these patients can decrease a large part of the problems caused by a feeling of helplessness and improve life quality.

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