

A systematic review of worldwide epidemiology of neuropathy, 2000-2021

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ABSTRACT

Neuropathic pain (NP) is a term used to describe a range of symptoms affected by a somatosensory nerve system injury or illness. The primary symptoms of this condition include spontaneous pain, such as scorching, shooting, pricking, and pin-and-needle sensations; allodynia, pain induced by stimulation that ordinarily does not cause pain; and hyperalgesia, increased pain caused by an unpleasant stimulus. As a result of its complex etiology and unknown pathophysiology, it is not very easy to treat completely. Pain recovery procedures become more vital when pain increases and continues, and medicine alone is no longer enough to relieve it. Multiple causes of NP have been identified, and its prevalence is expected to rise as the aging populations worldwide, diabetes mellitus becomes more common. Indeed, neuropathic pain has been linked to abnormalities in excitatory and inhibitory somatosensory signaling, changes in ion channels, and variability in how pain signals are regulated in the central nervous system. The complexity of NP symptoms and challenging treatment options seem to influence the liability of chronic NP.

BACKGROUND

- Neuropathic pain is pain that is triggered or produced by a fundamental nerve system injury or malfunction.
- The existence of both positive and negative signs and symptoms, such as loss of feeling, aberrant sensation, spontaneous pain, hyperalgesia, and allodynia, characterizes it.
- It is frequently severe and long-lasting, and it has a negative impact on the patient's physical and social functioning, emotional health, and overall well-being.

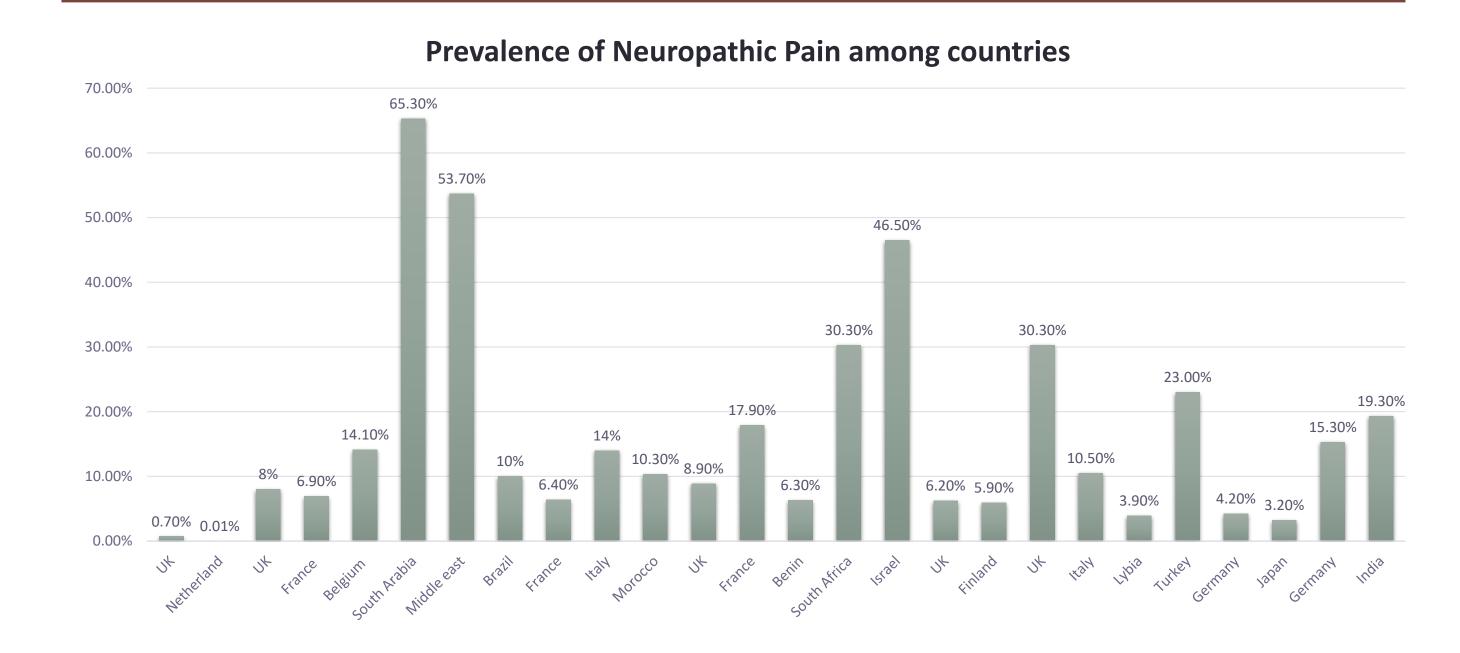
OBJECTIVES

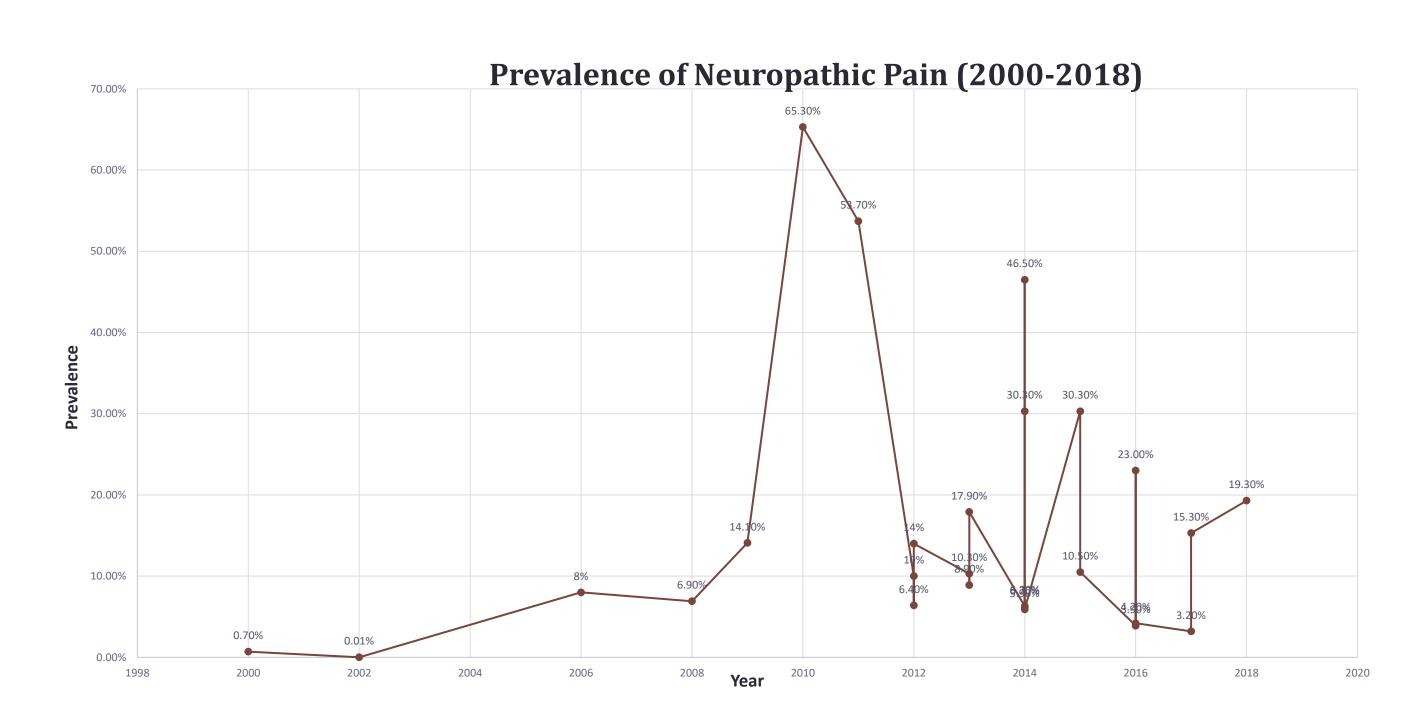
- To study the epidemiology of neuropathic pain in the overall population by a systematic search and organized literature review from past 20 years.
- To critically evaluate the clinical, financial, and educational resources that require essential care, where the patients with chronic pain are treated and managed, prioritizing treatment and prevention.
- To identify standardized screening techniques for this condition have been established, questionnaire-based epidemiological studies have been possible, and there is an expanding body of research examining the epidemiology of NP symptoms and disorders in the population.

METHODS

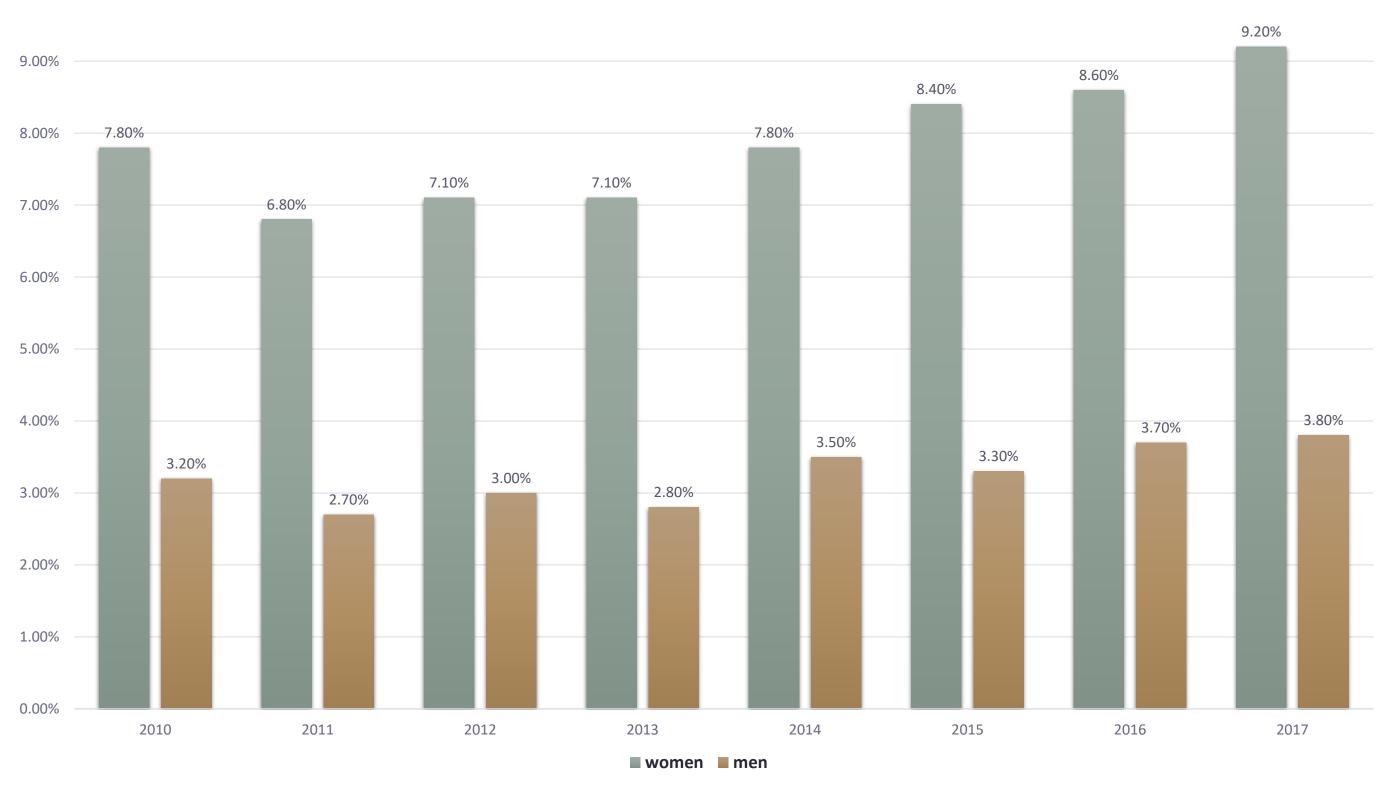
- Electronic databases were searched from January 2000 to December 2021, and studies were included where the main focus was on neuropathic pain prevalence and/or incidence, either as part of a specific neuropathic pain-related condition or as a global entity in the general population.
- We excluded studies in which data were extracted from pain or other specialist clinics or focusing on specific population subgroups.

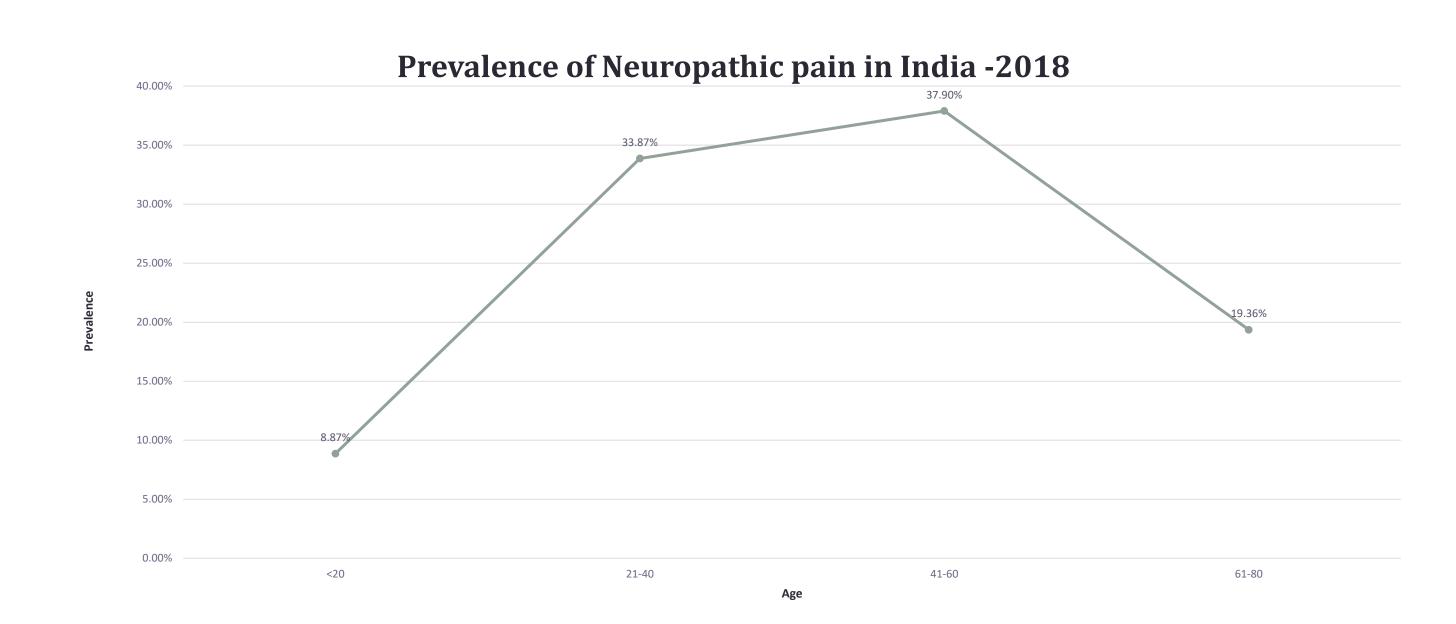
RESULTS

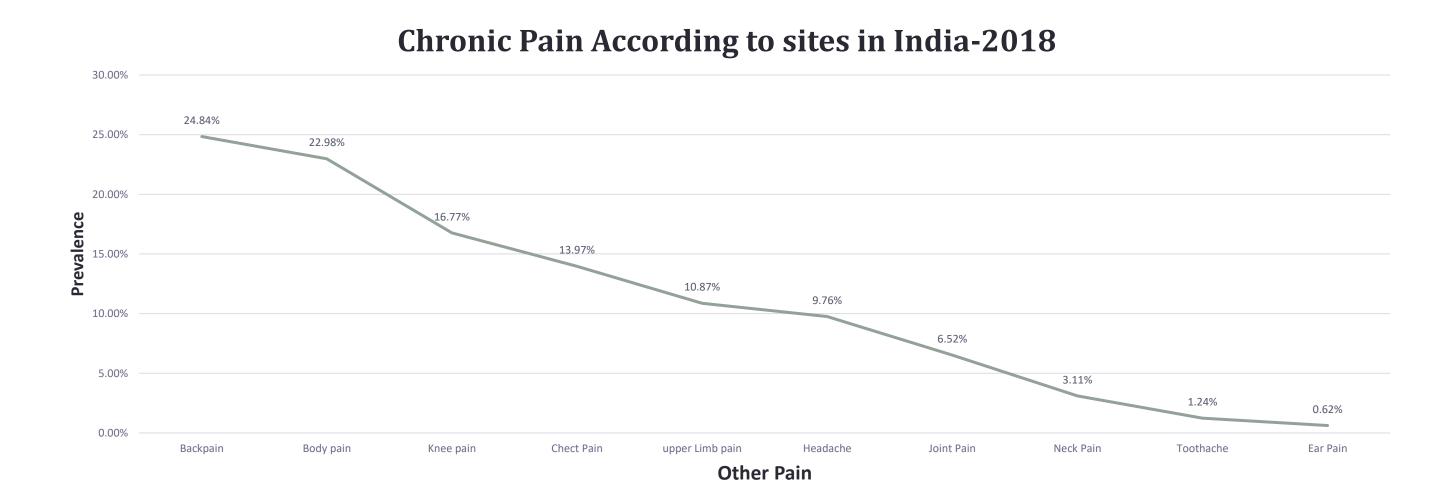




Prevalence of Neuropathic pain in women and men







CONCLUSIONS

- A comprehensive literature search and systematic review was performed on the epidemiology of neuropathic pain in the general population. A range of incidence and prevalence rates has been identified.
- The lack of consensus on a definition, diagnostic criteria, and appropriate and consistent use of the screening tools are reflected by the varying methods and results of the studies included in this review.
- Future epidemiological studies into neuropathic pain within the community should take note of these factors, using a standardized approach for identifying pain with possible neuropathic features

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