

## Epidemiology of Multiple Sclerosis in the world: A systematic review

Amir Hossein Goudarzian \*<sup>1</sup>, Saman Jamali <sup>2</sup>, Hedayat Jafari <sup>3</sup>

1-Nursing student, Student research committee, Mazandaran university of medical sciences, Sari, Iran

2-Nursing student, Student research committee, Mazandaran university of medical sciences, Sari, Iran

3-Assistant professor, faculty nursing and midwifery, Mazandaran university of medical sciences, Sari, Iran.

**Introduction:** multiple sclerosis (MS) is an inflammatory disease in which Myelin sheaths of nerve cells in the brain and spinal cord are damaged. These damages can interfere in the ability of nervous system to communicate, and cause signs and symptoms in the motor and cognitive systems. Given the high prevalence of this disease in developed and developing countries and its irreparable consequences, this study conducted to determine the prevalence and extent of this disease in the world.

**Material and Methods:** This review study was conducted in 2015 by searching keywords like Multiple Sclerosis, Encephalomyelitis disseminate, Autoimmune, Myelin sheath and prevalence of Multiple sclerosis in embase, web of science, science direct, scopus, PubMed and google scholar databases. Entry criteria included articles published between the years of 2005-2015 with related issues to present study. Among 120 articles which was found, 25 articles include 18 articles in English and 7 article in Persian were selected to participate in this study by secondary assessment.

**Results:** According to results of studies, MS is more prevalent in peoples who are farther from the equator. Ethnic groups that have the higher risk of MS, live in the areas away from the equator, such as Hatryt Canada, Maori New Zealand and Inuit Canada, and also groups that have lower risk of this diseases, live near the equator such as Sardinians, the Palestinians and the Corp of India. The reason of this geographic pattern of prevalence is not clear. MS is prevalent in Northern Europe and geographic diversity may simply reflect the global distribution of these high-risk populations. Reduce exposure to sunlight reduces vitamin D production and can be a justification for this prevalent, according to studies.

**Conclusion:** According to obtained results, the prevalence of MS have been increased with various factors, therefore more studies to determine the cause of this phenomenon is necessary.

**Key words:** Multiple Sclerosis, Epidemiology, systematic review