Diminutive Review on the Ethnomedicinal Uses of Drumstick (*Moringa oleifera* Lam.)

Tree from 1998 – 2023

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**ABSTRACT:** Ethnomedicinal uses involve the comparative study of how different cultures view diseases, medical beliefs and practices of indigenous cultures on how they treat or prevent diseases. Hence, the objective of this paper is to provide a miniature review on the ethnomedical uses of drumstick (*Moringa oleifera*) tree by harvesting data and information from previous publications from 1998 - 2023 using online Google search. Data revealed that *Moringa oleifera* is also called “miracle tree” or the “tree of life,” horseradish tree or Ben oil tree. In almost all indigenous cultures, various parts of *Moringa oleifera* is associated as being used for treatment of a variety of health conditions ranging from wounds, skin infections, joint pain, hepatitis, ulcers, liver diseases, kidney stones, inflammation, ear and tooth pain, fever, diarrhea, hypertension, anxiety etc. It is recommended that a more elaborate literature review should be carried out dating back in times to keep an up-to-date record of ethnomedical uses of the plant and capture other ethnomedicinal uses of *M. oleifera* not included in this review.

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*Moringa oleifera* is indigenous to the sub-Himalayan tracts of India, Bangladesh Afghanistan and Pakistan and it is the species grown the most among the Moringaceae family (Fahey, 2005). It is also called “miracle tree” or the “tree of life,” (Ashutosh et al., 2023) drumstick tree, horseradish tree or Ben oil tree (Fahey, 2005). *M. oleifera* is a fast-growing tree which grows up to 6 to 7 m in a year in regions with mean annual rainfall less than 400 mm (Odee, 1998). It is considered as a herbal plant of importance because of its tremendous and beneficial medicinal as well as non-medicinal uses (Ashutosh et al., 2023). The plant is traditionally used to treat inflammation, cancer, wounds, heart and liver diseases, ulcers and pains (Ashutosh et al., 2023).

People, all over the world, since the time of old, have added *Moringa oleifera* in their diet owing to its important medicinal values. Different medicinal preparations of the plant are said to possess ethnomedical properties for the treatment of diseases and have been made use of for hundreds of years. Virtually every part (bark, leaf, root, pod, gum, seed, seed oil, and flower) of this plant has been used to treat one disease or another (Stohs and Hartman, 2015). Uses of *M. oleifera* are observed in pathological alterations such as anti-diarrheal (Misra et al., 2014) antihypertensive (Aekthammarat et al., 2019) anti-anxiety (Bhat and Joy, 2014) and as a diuretic (Tahkur et al., 2016). Hence, the objective of this paper is to provide a miniature review on the ethnomedical uses of drumstick (*Moringa oleifera*) tree by harvesting data and information from previous publications from 1998 - 2023.

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Moringa leaves proffer a fast cure for inflammatory conditions such as bronchitis, glandular inflammation and headache (Woldeyohannes et al., 2022). The stem bark is used in treating wounds and infections of the skin (Rathi et al., 2006) while the pods are used for relieving joint pain and treating hepatitis (Meireles et al., 2020). The roots are used for the treatment of ulcers (Debnath and Guha, 2007), liver diseases (Ghasi et al., 2000) kidney stones (Karadi et al., 2006) inflammation (Paliwal et al., 2011) as well as ear and tooth pain (Mahajan et al., 2007). The people of India use the gum extracted from M. oleifera for treatment of fever and it is also used for abortions inducement (Bhattacharya et al., 2018). M. oleifera seeds act as a laxative and are used for treating tumors, bladder and prostate problems (Pandey et al., 2012). The seeds are promising for arthritis treatment by oxidative stress alteration and reduction of inflammation (Meireles et al., 2020). Preparations from the leaves of M. oleifera is beneficial to infants who are malnourished as well as nursing mothers and improve the population general wellbeing. The leaves have been beneficial to patients with insomnia (Liu et al., 2022) and for wound treatment (Gothai et al., 2016). Nowadays, Moringa is greatly utilized in the cosmetic industry. Similarly, ancient Egyptian history recorded that its use was employed in the preparation of dermal ointments (Toma and Deyno, 2014).

Conclusion: M. oleifera has been utilized for the health benefit of man in the treatment of various diseases as well as improvement of health of infants, nursing mothers and for the general wellbeing of people. The present review has highlighted various ethnomedicinal uses of M. oleifera based on past and current literatures. However, it is recommended that a more elaborate literature review should be carried out dating back in times to keep an up-to-date record of ethnomedicinal uses of the plant and capture other ethnomedicinal uses of M. oleifera not included in this review.

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Diminutive Review on the Ethnomedicinal Uses of Drumstick…


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