

ANTIMICROBIAL ACTIVITY
OF
***MORINGA OLEIFERA* LAM. - PLANT**
IN KISUMU COUNTY - KENYA

**A Research Project submitted for the award of Bachelor of Pharmacy Degree
of the Mount Kenya University.**

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ABSTRACT

Plants have served as a basis of sophisticated traditional medicine and play an essential role in primary health care in developing Countries despite being a source of drugs in modern medicine. Most unexpected results on usage are majorly due to over-dosage, unknown efficacy and lack of adequate knowledge of other detrimental by-products in the reference plant. The research project was on antimicrobial activity of selected parts of *Moringa oleifera* Lam in Kisumu County –Kenya, from five different extraction Solvents against five strains of bacteria and three strains of fungi; Using Disc-diffusion method.

Methanolic and Water extracts of Seeds; Hexane and Ethylacetate extracts of Stem barks and Water extracts of Leaves showed antibacterial activity against *Staphylococcus aureus* ATCC 25923. Methanolic and Water extracts of Seeds and Leaves ; Hexane, Dichloromethane and Ethylacetate extracts of Stem barks all showed marked antifungal activity on clinical *Trichophyton mentagrophytes*. Only Water extracts of Seeds and Ethylacetate extracts of Stem barks showed antifungal activity against clinical *Microsporum gypseum*. The extracts of all the above selected plant parts (Seeds, Stems and Leaves) from the used Solvents (Water; Methanol; Hexane; Ethylacetate and Dichloromethane) showed No activity against *Pseudomonas aeruginosa*, *Escherichia coli*, *Salmonella typhi*, *Shigella dysenteriae* and *Candida albicans*.

The study demonstrated the claimed antimicrobial uses of the plant:- *Moringa oleifera* in traditional medicine and provides a scientific prove of the medicinal value. Further studies such as In-vivo should be done to confirm and clarify the mechanism of action of *M. oleifera*. The secondary metabolites that showed activity should be isolated and further tested with an aim of synthesizing new templates for antimicrobials.