THE PHARMACOLOGICAL SCREENING OF *Moringa oleifera* Lam.

Karen Juaneza Burgos

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ABSTRACT

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Karen Juaneza Burgos

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Moringa oleifera, Lam. or malunggay belongs to Family Moringaceae. The medicinal value of this plant has long been recognized in folk medicine. Not all the claims, however, are proven scientifically. This study aimed to (1) test the crude extracts from the seeds and leaves of *M. oleifera* for pharmacological properties and (2) to compare its efficacy with the drugs commonly used to alleviate particular ailment.

Phytochemical assay for alkaloid using Culvenor-Fitzgerald method was done to test the presence of alkaloids. The dried seeds and young leaves were extracted with methanol and concentrated under reduced pressure at 45°C. The resulting extracts were partitioned and used for the different assays: Brine shrimp assay for cytotoxicity, Acetic acid-induced writhing assay for analgesic activity, Charcoal tracing assay for antispasmodic activity and paper disc diffusion method for antimicrobial activity.

Result showed that only the seeds have alkaloids. Toxicity test revealed that the seeds are practically non-toxic but the leaves were toxic with an LC50 of 550 µg/mL after 24 hours of exposure. Of the two extracts, only the leaves exhibited analgesic activity although not as effective as Mefenamic Acid in reducing pain. The leaf extract was also found active against *Bacillus subtilis*, *Staphylococcus aureus* , *Escherichia coli*,and *Pseudomonas aeruginosa*. The seed extract was active only against *B. subtilis*. Both extracts, however, are not as effective as the antibiotic drug, Amoxicillin. Results also showed that both extracts do not have antispasmodic activity.

The study confirmed the antimicrobial and analgesic activities for the use of the leaves of this plant in folk medicine.