
FACULTY OF SCIENCE AND EDUCATION

**ETHNOBOTANICAL SURVEY OF MEDICINAL PLANTS USED FOR TREATING
HUMAN AILMENTS IN HABULEKE PARISH, BUSIA DISTRICT**

BY

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DECLARATION

DECLARATION

The content in this thesis is my own work and has not been submitted for a degree or any other award elsewhere in any institution.

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DEDICATION

This thesis is dedicated to all people who have contributed anything towards my education and these include my Parents, relatives, lecturers, teachers, friends, church leaders and the community people that I worked with during the process of data collection.

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LIST OF ABBREVIATIONS

IUCN- International Union for Conservation of Nature

RFC ; Relative frequency of citation

Ha; Growth habit of medicinal plant.

Lo; Habitat or location of the medicinal plant

Lu; Lusoga

Sa; Samya

W and any number such as W001; Codes for the plant species

B ; Bark

S; Shrub

G; Grass

H; Herb

T; Tree

C; Climber or Cultivated

W; Wild

RS; Road side

L; Leaf

Sa; Sap

B; Bark

Fr; Fruit

Fl; Flower

Wp; Whole plant

Sd; Seed

Decoction; D

Infusion; I

Dp; Direct by pounding

Ds; Direct by squeezing

D; Direct method

R; Roasting

S; Steaming

Bb; Body bathe

Sm; Smearing

Pr; Preparation

Du; Direct use

Ad; Mode of Administration

Dc; Direct by crushing

ABSTRACT

The research aimed at documenting indigenous knowledge on use of medicinal plants in managing human ailments. Data was collected in November 2022 and a cross-sectional design was adopted using semi structured questionnaire and key informant interviews. Snow ball sampling was used for the traditional healers. Direct observation and taking of photographs of the medicinal plants was another strategy to acquire data. Voucher specimens were collected for further processing and identification. Descriptive statistics using frequencies and percentages were used to summarize data using Microsoft excel 2013. It involved drawing different tables indicating all information in line with the intended objectives. Pie charts generated in Microsoft excel were used to compare the socio-demographic characteristics of the respondents and indigenous knowledge related to the medicinal plants. Relative frequency of citation was used to spot the mostly used plant species. Majority of the respondents were female in the age bracket of (56-65) yrs. Most of the respondents had at least acquired primary education but without a reliable source of income. Knowledge acquisition was mostly through inheritance and majority took no effort to conserve the medicinal plants. The study area consisted of more than one tribe, Samya and Basoga were predominant. A total of 91 plant species belonging to 35 plant families were reported to be used in managing different human ailments. Leguminosae was the dominant family. The plant species *Vernonia amygdalina* Delile, *Bidens pilosa*, *Abrus precatorius* L, *Citrus limon* (L) Osbeck, *Ipomea batatus* (L.) exhibited the same and highest relative frequency of citation. Herbs contributed the highest percentage (41.90%) of plant growth life forms that are used in the study area followed by trees (30.48%). Most of the medicinal plants were collected from the wild and the least were cultivated. A Total of 52 human ailments were recorded, out of which malaria, cough and anemia in children were the commonest with Malaria taking the first position. Leaves were the most commonly used plant parts, direct method involving squeezing and crushing of the material in its raw form was the majorly used method of preparation and oral route was the dominant mode of administration. It can be concluded that a total of 52 human ailments were mentioned, out of which Malaria, cough and anemia in children were the commonest with Malaria taking first position. The plant species *Vernonia amygdalina* Delile, *Bidens pilosa*, *Abrus precatorius* L., *Citrus limon* (L) Osbeck, *Ipomea batatus* (L.) exhibited the same and highest relative frequency of citation. The mostly used plant part was leaves, method of preparation was direct method involving crushing and squeezing of the medicinal plants in their raw form and dominant mode of administration was through oral route.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

The use of plants as medicine is on the increase worldwide irrespective of efforts that have been put in place to improve medical services (Catherine, Mugisha, Bright, & Engeu, 2020). Currently millions of people in different parts of planet earth use herbal medicine to manage a variety of health complications (Jane Namukobe et al., 2011). A large population of people living in developing countries depend on traditional medicine to cater for their basic health care necessities (Asiimwe, Kamatenesi-Mugisha, Namutebi, Borg-Karlsson, & Musiimenta, 2013). In African developing countries, an average of 80% of the population rely directly on plants to manage various ailments (Tugume et al., 2016). More still Tugume et al. (2016) recorded that population depending on plant based medicine in East African countries like Burundi and Tanzania that neighbor Uganda is beyond 80% specifically in rural areas. Likewise in Uganda, about 80% of the population largely rely on plant based medicine for treating a wide range of ailments (Jane Namukobe et al., 2011).

Medicinal plants provide the basic source of primary healthcare among rural communities in Uganda due to the expensive and often inaccessible modern healthcare services (Nambejja, Tugume, Nyakoojo, & Kamatenesi-Mugisha, 2019). Besides the use of traditional medicines in the management of illnesses, they also contribute directly to the socio-economic status and welfare of the herbalists and traditional healers as they make earnings from them (Jane Namukobe et al., 2011). The government of Uganda has particularly put emphasis on use of medicinal plants and is intending to merge it into the main health care system (Asiimwe, Namukobe, Byamukama, & Imalingat, 2021). The increased use of plant based medicine is mainly triggered by the confirmed curative proof of the herbal remedies (Nezhadali & Shirvan, 2010). The social-cultural authentication of traditional medicine and the trust that natural products do not have side effects has also enhanced their usage (Tugume et al., 2016).

The increased interest in the use of medicinal plants has resulted into intensive exploration for therapeutic remedies against different ailments from plants (Sharafzadeh & Alizadeh, 2012). The medicinal plants are obtained from the wild which creates a negative impact on the plant biodiversity due to unsustainable harvesting (Tugume et al., 2016). According to Ssenku et al. (2022), due to the increased demand for herbal medicine in both developed and developing countries together with other factors such as climate change, about 15,000 medicinal plants

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