Introduction

International Medical Outreach is a nonprofit student organization established at the University of Central Florida. Our mission aims to promote sustainability, preventive healthcare, and cross-cultural integration in underserved and isolated communities. Furthermore, we provide students with opportunities to increase their cultural awareness while being exposed to the various cultures, living standards, and healthcare systems present around the world.

In 2011, IMO’s Haiti Project was established in Mare Brignol. Since then, we have been providing the community with hygiene and school supplies, essential vitamins, a free clinic alongside local physicians, and educational workshops.

In 2017, we introduced our Research Project to study the implementation and acceptance of moringa oleifera in the village of Mare Brignol. Moringa oleifera is a highly nutritious superfood with many uses that shows unique traits such as being resistant to drought.

Methods

This study encompasses pre-surveys followed by educational workshops, and culminates with post-surveys during a second trip roughly three months later. A total of 35 participants from 22 households were recruited from the community of Mare-Brignol (18 females & 17 males; ≥18 years) during the first trip. Translators fluent in Haitian Creole administered the survey paperwork and communicated with the households during two days of house-to-house visits. Following confirmation of inclusion to the study, consent forms were administered and pre-surveys were conducted. The pre-survey consisted of 31 multiple choice questions that assessed each individual’s perception, usage, and knowledge of moringa oleifera. After pre-surveys were administered, an educational workshop was presented focused moringa oleifera’s nutritional, agricultural, and industrial benefits. Thereafter, participants were given moringa oleifera seeds, a three-month supply of moringa powder (600 grams), and an educational pamphlet reiterating the concepts outlined by the workshop. GPS software (Gaia GPS for iOS) was used to map each participating household. This was done to facilitate navigation through the mountainous terrain and maintain reliability for future visits.

Results

Figure 1: Initial assessment of population usage of moringa oleifera

Figure 2: Initial population attendance of moringa oleifera

Figure 3: Initial perception of moringa oleifera health benefits

Figure 4: Initial perception of moringa oleifera’s ability to flocculate water

Discussion

Based on the preliminary results that were obtained from the pre-trip that occurred in August of 2019, it is observed that approximately 91% of our research population has previous knowledge of moringa oleifera. However, the frequency of usage of moringa oleifera varies from 0 to 5 times a week (Figure 1). A key factor that should be noted is that the usage of moringa oleifera is dependent on the growing conditions experienced in Mare-Brignol each season. Having both the dried powder and fresh leaves available to the participants, we expect to see an increase in moringa oleifera usage as well as an increased positive perception of the plant.

As shown in Figure 2, the attendance of the educational workshop hosted by IMO had varying results as well, with a majority of participants able to attend and a small number of participants who either sent a proxy household member or only a portion of the household attended the workshop. The varying levels of attendance gives us the opportunity to analyze how workshop attendance affected the results of the research. Other factors that may influence the data obtained from the participants are the possibility of survey question bias, gaps in literacy, and the community’s perception of foreign entities.

Future Directions

The adoption of moringa oleifera has the potential to alleviate malnutrition and associated conditions pervasive in Mare-Brignol. The education provided in our workshops regarding harvesting and processing could also lead to the formation of a possible microeconomy, as moringa oleifera could become a potential cash-crop. Studying this application of the implementation of moringa oleifera will enable our future sustainable initiatives across southeastern Haiti. This study could serve as a foundation for other researchers and humanitarian organizations to better aid isolated and agrarian communities similar to Mare-Brignol.

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References


