
LEMONGRASS (*Cymbopogon citratus*), MUGWORTS (*Artemisia vulgaris*) AND OREGANO (*Origanum vulgare*) EXTRACT MASSAGE OIL

Thea Mae H. Gestalao*, Trisha Marie G. Aguanta, Candy Joy M. Conlu, Ruffa Mae G. Esclada, Angelyn S. Fenis, Mary Lyn N. Lobrido, Ana Mae B. Raymundo, KC Marie O. Templo

Iloilo Science and Technology University Miagao Campus

*Corresponding author: theamaegestalao@gmail.com

Abstract

This developmental study aimed to develop a massage oil out of lemongrass, mugworts, and oregano extract and to evaluate the soothing effect in terms of muscle pain, migraine and insect bites. The production which involved preparing of lemongrass stalks, mugworts leaves, and oregano leaves, chopping, pounding, straining and mixing the extracts was conducted during the First Semester of the Academic Year 2023-2024. The evaluation consisted of 15 evaluators composed of 5 faculty members of Iloilo Science and Technology University Miagao Campus, 5 farmers, and 5 construction workers. The subjects were selected through purposive sampling. To describe the data, Mean and Standard Deviation were used for descriptive analysis. The study revealed that the Lemongrass, Mugworts, and Oregano Extract Massage Oil as to scent were describe having a "mild scent." As to soothing effect in terms of muscle pain, "There is an effect on relieving muscle pain to some extent after continuous application," in terms of migraine, "There is an effect on easing the pain to a great extent that was felt on the side of the head after the application," and in terms of insect bites, "There is an effect on reducing the inflammation, itching, and red bumps to some extent after continuous application." As to the level of acceptability, the results showed that Lemongrass, Mugworts and Oregano Extract Massage Oil were "Liked Very Much" by the evaluators. The total cost of the product per bottle (10 ml) is 42 pesos. Ingredients utilized in this study are abundant from the researchers' sources.

Keywords: Lemongrass, Massage, Mugworts, Oil, Oregano.

INTRODUCTION

Lemongrass, mugwort, and oregano are well-known for their medicinal properties and traditional use in herbal remedies; however, there is a notable lack of research regarding their incorporation into massage oil formulations for the alleviation of muscle pain, migraines, and insect bites. These conditions affect individuals of all ages, with muscle pain often resulting from improper use or stress, migraines being genetically influenced disorders characterized by severe headaches (Pescado Ruschel & De Jesus, 2023), and insect bites causing itchy, inflamed skin (Castiello, 2023). While modern medicine typically relies on synthetic drugs, which can have adverse effects, the researchers propose the development of a massage oil that combines these plant extracts. Lemongrass is recognized for its pain-relieving properties (WebMD Editorial Contributors, 2022), mugwort is known to aid in energy enhancement and pain relief (Miller, 2024), and oregano possesses anti-inflammatory benefits (DeSoto, 2023). This study aims to create a customizable massage oil utilizing these extracts, thereby addressing the growing demand for natural health solutions and providing a potential alternative for individuals seeking non-pharmaceutical remedies.

The findings of this study are beneficial to various groups. For educators, the results provide valuable information that can support the development of a cosmetology curriculum, enhancing

knowledge and skills, and offering new concepts to be applied in laboratory activities. Cosmetology students can gain practical techniques for using lemongrass, mugwort, and oregano as massage oils. For farmers, the study may inspire the cultivation of these plants, given their potential uses in natural remedies and the cosmetic industry, while promoting sustainable agricultural practices. Additionally, the research encourages future scholars to further investigate the uses of these plants or replicate the study with different evaluators to explore the same product.

LITERATURE REVIEW

Synthesis

Based on the mentioned articles and study above, the researchers concluded that lemongrass, mugworts, and oregano are all of the great variety and have a nutritional value in making a massage oil. In this literature review, information about the description, variety, benefits, nutritional, and their uses. Also, the information relevant to the properties of lemongrass, mugworts, and oregano, as well as their potential to be a natural and organic cosmetic ingredient are highlighted. The existing knowledge from the above subject matters has revealed a significant literature gap that needs to be addressed. Current studies about the use of lemongrass, mugworts, and oregano as natural ingredient in massage oil are limited, and clinical evidence of their benefits are scarce. Moreover, based on the findings of the review a sensory checklist used to evaluate the finished product. In this tool, scent, soothing and general acceptability are being assessed.

RESEARCH METHOD

This study employed developmental research. In the context of using lemongrass, mugworts, and oregano, developmental research would involve the continuous evaluation and improvement of the product and their blends to enhance their therapeutic benefits and efficacy. The main purpose of this study is to develop a massage oil out of lemongrass, mugworts, and oregano extracts and to discover if these plant extracts soothe muscle pain, migraine and insect bites.

The evaluators of this study were the subjects with muscle pain, migraine and insect bites. The evaluation consisted of 15 evaluators composed of 5 faculty members of Iloilo Science and Technology University Miagao Campus, 5 farmers, and 5 construction workers. The subjects were selected through purposive sampling. The feedback, suggestions, and recommendations of the group of evaluators serve as the basis for further refinement and finalization of the massage oil.

The researcher collected the evaluators' responses after conducting the sensory evaluation of the product. The checklist for the level of acceptability was gathered, tallied, and summarized for further computation. Mean and Standard Deviation were utilized to determine the acceptability of the product in terms of scent, soothing effect and general acceptability.

The study utilized a Sensory Evaluation checklist, created by the researchers and validated by a panel of experts, as a data-gathering instrument. This instrument was divided into two parts. Part 1 of the checklist contained criteria for evaluating the scent and soothing effect of the lemongrass, mugworts, and oregano massage oil in terms of muscle pain, migraines, and insect bites. Part 2 contains the level of acceptability of massage oil that includes the following: liked extremely, liked very much, liked slightly, neither liked nor disliked, disliked slightly, disliked moderately, disliked very much, and disliked extremely.

This experimental study was divided into six (6) phases: Phase I, includes the preparation of the tools, utensils, materials, and ingredients. Phase II includes the Preparation of plant extract. Phase III, includes the try-out of the solution. Phase IV includes the Standardization of the Product. Phase V, includes the evaluation of the finished product by the panel of evaluators, and Phase VI includes the Costing of the Product.

RESULTS AND DISCUSSION

Descriptive Analysis

Acceptability of Lemongrass, Mugworts, and Oregano Extract Massage oil as to Scent.

The results of the evaluation of Lemongrass, Mugworts, and Oregano Extract Massage oil as to scent. The results revealed that as to scent of Lemongrass, Mugworts, and Oregano Extract Massage oil obtained the mean ($M = 2.73$; $SD = 1.033$) and was rated “mild scent” by the evaluators. This means that in terms of scent the evaluators rated the product have a mild scent of lemongrass, mugworts, and oregano which can be attributed to the delightful combination of these ingredients.

Evaluation of the Soothing Effect of Lemongrass, Mugworts, and Oregano Extract Massage oil in terms of muscle pain.

The results of the evaluation of Lemongrass, Mugworts, and Oregano Extract Massage oil as to muscle pain. The results revealed that as to Muscle pain of Lemongrass, Mugworts, and Oregano Extract Massage oil was rated “There is an effect on relieving muscle pain to some extent after continuous application” with a mean rating of ($M = 3.20$; $SD = .447$) by the evaluators. This means that the product has an effect on relieving muscle pain to some extent after continuous application.

Evaluation of the Soothing Effect of Lemongrass, Mugworts, and Oregano Extract Massage oil in terms of migraine.

The results of the evaluation of Lemongrass, Mugworts, and Oregano Extract Massage oil as to migraine. The results revealed that as to Migraine of Lemongrass, Mugworts, and Oregano Extract Massage oil was rated “There is an effect in easing the pain to a great extent that was felt on the side of the head after the application” with a mean rating of ($M = 4.20$; $SD = 1.095$) by the evaluators. This means that the product has an effect in easing the pain to a great extent that was felt on the side of the head after the application.

Evaluation of the Soothing Effect of Lemongrass, Mugworts, and Oregano Extract Massage oil in terms of insect bites.

The results of the evaluation of Lemongrass, Mugworts, and Oregano Extract Massage oil as to insect bites. The results revealed that as to Migraine of Lemongrass, Mugworts, and Oregano Extract Massage oil was rated “There is an effect on reducing the inflammation, itching, or red bumps to some extent after continuous application” with a mean rating of ($M = 3.80$; $SD = .837$) by the evaluators. This means that the product has an effect on reducing the inflammation, itching, or red bumps to some extent after continuous application.

Evaluation of the Soothing Effect of Lemongrass, Mugworts, and Oregano Extract Massage oil in terms of general acceptability

The results of the evaluation of Lemongrass, Mugworts, and Oregano Extract Massage oil as to general acceptability. The results revealed that as to general acceptability of Lemongrass, Mugworts, and Oregano Extract Massage oil obtained the mean ($M= 8.00$; $SD= .655$) and was rated "*Liked Very Much*" by the evaluators.

Costing of the Product

The cost results of Lemongrass, Mugworts, and Oregano Extract Massage oil. The results revealed that Lemongrass, Mugworts, and Oregano Extract Massage oil have a total cost of 32 pesos. The researchers had huge expenses for the materials, and only the main ingredients utilized in this study were reduced as they are abundant from the researchers' source.

CONCLUSION

The study's result and findings underscore the potential of Lemongrass, Mugworts, and Oregano Extract Massage Oil as a natural remedy for muscle pain, migraines, and insect bites. The harmonious blend of ingredients, coupled with its efficacy and acceptability among evaluators, positions this herbal oil as a promising option for individuals seeking holistic solutions for common health concerns. The development of massage oil from these plants has potential therapeutic benefits and is well accepted by the users.

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