

We Use Infusions of Lemon and Lemongrass to Maintain Endurance

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ABSTRACT

Climate change, along with the post-pandemic scenario, renders the population's immune systems susceptible to different infections. Immunity can be sustained by hygiene, physical activity, and a balanced diet. Another method to sustain immunity is to ingest traditional herbal items or herbal remedies. A traditional beverage that is easy to prepare and uses readily available ingredients in the community is lemongrass stew. Lemons (*Citrus lemons*) possess antioxidant properties due to their vitamin C content, whilst lemongrass (*Cymbopogon nardus* L.) contains citral and geranial advantageous chemicals as anti-inflammatories. This workshop with participants aims to impart knowledge and insights regarding the advantages of lemongrass lemon drink and its preparation, which involves thoroughly washing the ingredients, boiling them with tamarind sugar and additional spices such as cinnamon and ginger, and subsequently filtering the mixture to produce a beverage that supports immune health. Participants exhibited considerable enthusiasm due to the activity's pertinent issue, with the expectation that it would enhance their comprehension of immunity maintenance, particularly throughout the transitional season and post-pandemic period. The conducted activities indicate that, based on pre- and post-event test results, comprehension of the workshop material has improved to 95%.

Keywords: Immunity; Lemon; Lemongrass; Workshop

INTRODUCTION

Climate change can render public health conditions susceptible to disease. Particularly in the post-pandemic era, individuals must continue to adhere to health protocols in their daily routines, including handwashing, maintaining social distance, wearing masks, and ensuring optimal health by consuming nutritious food to enhance immunity. This health beverage effectively enhances stamina and bolsters resilience against chilly weather, particularly during

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the rainy season, due to its remarkable health advantages (Kirk, 2019). Vitamin C content helps enhance the immune system. This uncomplicated concoction is efficacious in dissolving mucus and phlegm accumulation. To obtain the advantages of lemongrass and lemon, infuse lemongrass in water and subsequently strain. Depending on personal preference, you can serve the beverage either warm or cold. We must empower the community by teaching them how to make antioxidant-rich beverages from easily accessible and affordable ingredients. Anticipate that using antioxidants will become a new habit to boost immune function in the post-pandemic era. Empowerment is provided to housewives, who play a crucial role in the health of their family members, with the expectation that following this initiative, moms will enhance their productivity in managing family health through the food and beverages consumed.

RESEARCH ELABORATIONS

The approach for executing public health development actions involves disseminating information regarding the advantages of lemon and lemongrass beverages for bolstering community immune systems. This undertaking was executed in multiple phases, commencing with field surveys aimed at gathering information regarding prevalent health issues, particularly during the current transitional season, followed by the selection of the workshop's target audience, specifically a group of mothers. Following the identification of the target audience, the subsequent phase involves securing counselling permits, preparing lemon and lemongrass beverages, developing presentation materials, formulating questions, and establishing the necessary infrastructure for the events (Honmane, n.d.).

The workshop's demographic and sample were selected due to their examination of climate change and the vulnerability of public health situations in the post-pandemic era to disease. Lemongrass and lemon decoction beverages are highly beneficial for enhancing endurance and immunity. Lemongrass (*Cymbopogon citratus*) and lemon (*Citrus lemon*) are plants commonly found in Indonesia and are well known to the local populace. The requisite tools for preparing lemon and lemongrass beverages include orange juicers, scales, spatulas, funnels, 250 ml plastic bottles, pots, stoves, knives, and slingshots. The materials utilised are lemon, lemongrass, cinnamon, tamarind, sugar, and water. The data collection method employed in this session is the testing approach. The testing methodology comprises two types: the pre-test administered prior to the material presentation and the post-test administered subsequent to the material presentation.

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RESULTS AND DISCUSSIONS

We successfully executed the Public Health Development Practice, meeting the target of 75% participant attendance from Bentakan Village. The activity commenced with the distribution of materials and product demos. This counselling focused on enhancing the body's immunity through the use of natural ingredients as protective agents. The product is a herbal beverage consisting of lemon water infused with lemongrass, designed to support the body's immune system. This herbal beverage consists of a blend of lemon juice, lemongrass, and tamarind sugar, accompanied by comparative analyses (Maleš et al., 2022). We administered a pretest to participants prior to the information presentation to assess their understanding.

At the end of the product demonstration, attendees received manufactured products. Participants also completed the posttest and questionnaire related to the Public Health Development Practice event. At the conclusion of the event, the participants were presented with the items that had been created. The accompanying attendance list indicates that over 75% of participants were present.

Table 1. Results of Pretest and Posttest

No	Name	Pretest	Postes
1	Respond 1	6	9
2	Respond 2	6	9
3	Respond 3	7	9
4	Respond 4	6	8
5	Respond 5	5	9
6	Respond 6	6	8
7	Respond 7	7	8
8	Respond 8	7	8
9	Respond 9	7	8
10	Respond 10	6	8
11	Respond 11	6	9
12	Respond 12	5	9
13	Respond 13	5	9
14	Respond 14	7	9
15	Respond 15	7	8
16	Respond 16	7	8
17	Respond 17	6	9
18	Respond 18	6	9
Total Values		112	154
Average		6.2	8.5

The table of pretest and posttest findings indicates that participants exhibited a lower degree of knowledge of the benefits of lemon and lemongrass as a beverage for immune maintenance during the pretest. Nevertheless, the posttest results indicated an elevation in

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scores relative to the pretest. The participants' extensive knowledge indicates their motivation and determination to enhance their learning and deepen their understanding of the advantages of lemon and lemongrass beverages in immune maintenance. The participants exhibited considerable enthusiasm during this workshop activity due to the theme's relevance to the current circumstances. The impact of syrup medications on renal function in both paediatric and adult populations is a topic of concern. In this unpredictable weather, several individuals are vulnerable to ailments such as cough, cold, and fever. This is a dilemma for parents who fear administering pharmaceutical medications to their family members. Consequently, beverages made from natural elements like lemon and lemongrass are highly beneficial for sustaining immunity and thereby reducing susceptibility to infections. This session is highly sought after by participants, as it showcases items through demonstrations and imparts expertise on creating palatable and safe products for all age groups.

CONCLUSIONS

The Public Health Development Practice Activity was attended by over 75% of the designated participants, as indicated by the attendance list. During the product demonstration, attendees were provided with manufactured products. The participants' understanding of the advantages of lemon and lemongrass as an immunity-enhancing beverage improved, as evidenced by the pre-test and post-test results conducted during the activity.

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REFERENCES

- Babu, J. D. M., Priya, J., & Devi, G. (n.d.). *Knowledge and Awareness on the Effect of Lemon Grass Tea on Oral Health among College Students*.
- Honmane, M. V. R. (n.d.). The Role of Nutritious Diet in Boosting Athletic Performance. *International Journal of Food and Nutritional Sciences (IJFANS)*, 5(13), 101.
- Kirk, M. (2019). *Tea-Vitalize: Cold-Brew Teas and Herbal Infusions to Refresh and Rejuvenate*. The Countryman Press.

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Maleš, I., Pedisić, S., Zorić, Z., Elez-Garofulić, I., Repajić, M., You, L., Vladimir-Knežević, S., Butorac, D., & Dragović-Uzelac, V. (2022). The medicinal and aromatic plants as ingredients in functional beverage production. *Journal of Functional Foods*, 96, 105210.