

## A Variation of Jasmine Essential Oil for a New Jasmine Aromatherapy Formulation

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### Abstract

**Background** :Aromatherapy is one of the holistic healing treatments used for relaxing and promote well-being. Aromatherapy or essential oil therapy use essential oils obtained by extracting plants.

**Aims**: In this study, we aimed to find new jasmine formulation aromatherapy. **Settings and Design**:

The design of this study was descriptive analysis. **Methods and Material**: This research used an

experimental method for the mixing process and the varying ratio of essential oil and menthol. The

first formula is 3 mL of jasmine essential oil and 3 g of menthol, the second formula (Formula II) is 6

mL of jasmine essential oil and 3 g of menthol, and the third formula is 6 mL of jasmine essential oil

and 6 g of menthol. **Results**: The results showed that Formula II was preferred over the other formulas

(36 out of 40 respondents). The homogeneity test in this formula has a pH of 6.5. In addition to the

result of the test, if the II-A formula is made with a 2:1 aroma ratio of jasmine and lavender is

preferred. **Conclusions**: It can be concluded jasmine in aromatherapy has a good homogeneity at a pH

of 6.5. Furthermore, a ratio of 2:1 of jasmine and lavender is more desirable.

**Keywords**: Essential Oil; Formulation; Jasmine

**How to cite this article**: Arifan F, Adhy S, et al (2021) A variation of Jasmine essential oil for a new Jasmine aromatherapy formulation, Ann Trop Med & Public Health; 24 (S01): SP24101. DOI:

<http://doi.org/10.36295/ASRO.2021.24101>

### Introduction

Aromatherapy is a modern term used for the ancient healing process that uses pure aromatic plant extracts. Aromatherapy is a method of body treatment and cure to improve the health and well-

being of the body, mind, and soul. Aromatherapy plant extracts, known as essential oils, are derived from aromatic herbs processed in various ways (1). *Jasminum sambac* is one type of flower that comes from Indonesia. The use of jasmine in various cultural activities has become the hallmark of Indonesia, so that the Indonesian people unfamiliar with the scent of jasmine will experience a sense of calm and relaxation. Jasmine can be used as aromatherapy preparations. However, jasmine aromatherapy is often avoided because of the mystique that is embedded in the society (2). So, that made a breakthrough by mixing lavender aromatherapy jasmine. The scent of jasmine and lavender improves the performance of students. The effects of the optimal aroma may be experienced when the body is experiencing fatigue or drowsiness. The purpose of this study is to determine the physical test results of the jasmine aromatherapy formulations (3).

## Subjects and Methods

The study used an experimental method to do the mixing. This method is done by mixing 3 ml lavender essence, 3 g camphor, 6 ml coconut oil, and 3 ml of methyl salicylate at room temperature (2). In the first formula (Formula I), 3 ml of jasmine essence and 3 g of menthol are added, 6 ml jasmine essence and 3 g of menthol in the second formula (Formula II), and 6 ml jasmine essence and 6 g of menthol in the third formula (Formula III). From the results of jasmine aromatherapy formulations to test the pH, homogeneity, and hedonic test questionnaires to a number of people.

## Results

**Table 1. Formulation of aromatherapy**

Name of Material	Formula I	Formula II	Formula III
Jasmine Essence	3 ml	6 ml	6 ml
Lavender Essence	3 ml	3 ml	3 ml
Menthol	3 g	3 g	6 g
Camphora	3 g	3 g	3 g
Coconut Oil	6 ml	6 ml	6 ml
Methyl Salicylate	3 ml	3 ml	3 ml

Formula I and II do not have similar warm sensation with Formula III, which is because of the higher dose of menthol in Formula III. Based homogeneity, all formulas can be mixed with a variety of materials available so that aromatherapy looks homogeneous

**Table 2. pH Test Results**

pH test	Result
Formula I	6.5
Formula II	6.5
Formula III	6.5

As shown in Table 2, the pH measurements of Formula I, II, and III are within the pH requirements for topical preparations, which is between 4.5 and 6.5. We determined the level of preference with the use of questionnaires (4). Forty people were asked to inhale the aromatherapy preparations. We obtained the following results:

1. Formula I: 27 respondents liked the product, and 13 respondents disliked the product
2. Formula II: 36 respondents liked the product, and 4 respondents disliked the product
3. Formula III: 25 respondents liked the product, and 15 respondents disliked the product

A level seen from the number of respondents divided by the total number of samples, created percentage in each dosage formula to produce data in Table 3.

**Table 3. Test Results Based passions Aroma**

	L	NL
Formula I	68%	32%
Formula II	90%	10%
Formula III	63%	37%

Formula I obtained 68% of likes and 32% of dislikes, Formula II had 90% likes and 10% dislikes, and Formula III had 63% likes and 37% dislikes.

## Discussion

Jasmine can be used as aromatherapy preparations, from the results of jasmine aromatherapy formulations to test the pH, homogeneity, and hedonic test questionnaires to a number of people. It can be concluded jasmine in aromatherapy has a good homogeneity at a pH of 6.5. Furthermore, a ratio of 2:1 of jasmine and lavender is more desirable.

## References

1. Krishna A, Tiwari R, Kumar S. Aromatherapy-an alternative health care through essential oils. J Med Aromat Plant Sci 2000; 22: 798-804.
2. Sakamoto R, and Minoura K,. Effectiveness of aroma on work efficiency: Lavender aroma during recesses prevent deterioration of work performance. Chem.Senses 30:683-691. Enable from: <http://chemse.oxfordjournals.org>.

3. Worwood VA. Aromatherapy for the healthy child: more than 300 natural, non-toxic, and fragrant essential oil blends. Novato: New World Library; 2000.
4. Dewi, R. , Anwar, E., Yunita, K., Uji Stabilitas Fisik Formula Krim yang Mengandung Ekstrak Kacang Kedelai (Glycine max), Pharm Sci Res ISSN 2407-2354, December 2014 (Vol. 1 No. 3).