

EFFECTIVENESS OF ADMINISTERING LAVENDER AROMATHERAPY WITH REDUCING ANXIETY LEVELS: LITERATURE REVIEW

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ABSTRACT

Introduction: Anxiety is a psychosocial problem that often occurs in a person. Ansietas is ranked 2nd according to Riskesdas data in 2018, the prevalence of anxiety that occurs from 14 million people in Indonesia experiencing emotional mental disorders is characterized by symptoms of anxiety or 6% experiencing anxiety. A person who experiences anxiety will have an impact on the individual against threats to physical integrity that affect the decline in daily activities. The impact that occurs will affect the components of self-concept and ability to interact socially. Curative efforts that can be made as a nurse in reducing anxiety that occurs with non-pharmacological therapy. The therapy carried out can be the application of complementary therapy, one of the therapies applied to reduce anxiety with the use of lavender aromatherapy. **Objective:** To analyze the effectiveness of lavender aromatherapy on reducing anxiety levels. Method: literature review study yesKey words: aromatherapy, lavender, the level of anxiety. **Method:** The method used is descriptive, which is a form of research used in a literature review with some data that has been found, a total of 6 articles applied, starting from the journal year used in 2020-2024. **Results:** The results in the literature review show that lavender aromatherapy is very effective in lowering a person's anxiety levels. **Conclusion:** Lavender aromatherapy can be used as a complementary nursing measure to lower a person's anxiety.

Keywords: aromatherapy; anxiety level; lavender

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INTRODUCTION

Anxiety is a psychosocial problem that occurs with symptoms of fear and worry, but the cause of these feelings is not certain, as well as the emotional state that occurs due to someone experiencing stress, and there are symptoms of feelings of tension, thoughts become restless or not relaxed, accompanied by physical responses (Rosna, Halizasia, & Rahmisyah, 2024).

Anxiety can be oriented to the future allowing for something meaningful that will have an impact on the stimulus that occurs. Physiological symptoms will have an impact on the anxiety that occurs which will interfere with a person's life (Nigussie, S., Belachew, T. and Wolancho, 2014). Anxiety is one of the psychosocial problems that often appears ranked 2nd according to Riskesdas data in 2018, the prevalence of anxiety that occurs from 14 million people in Indonesia experiencing emotional mental disorders is characterized by anxiety levels or 6% experiencing anxiety (Health & RI., 2018).

Someone who experiences anxiety will have an impact on the individual against the threat of physical integrity which affects the decline in daily activities. The impact that occurs will affect the components of self-concept and the ability to interact socially. Anxiety can also be at risk of depression (Stuart G. W., 2023). The involvement of nurses is very important in reducing feelings of anxiety that arise in a person, especially affecting daily life. Curative efforts that can be made as a nurse in reducing anxiety that occurs with non-pharmacological therapy. The therapy that is carried out can be with the application of complementary therapy (Yosep, 2019).

One of the complementary therapies that will be done to reduce anxiety is the use of lavender aromatherapy. Based on (Lope, 2017) said that one of the lavender ingredients contains Linalool or linalyl acetate is one of the ingredients found in lavender used to facilitate the release of serotonin hormones (anxiety hormones) that are closed. There are several studies that state that linalool or linalyl acetate which is quite a lot can be found in lavender aromatherapy (Guler, Demir, Sahan, & Sevil Guler, 2023).

According to research conducted by (Intan Asri Nurani, Milya Helen, 2022) that lavender aromatherapy as one of the essential oils that provides calm, makes you relax, thus reducing

anxiety levels in a person, especially in physical disorders. According to research (Mirazanah, Carolin, & Dinengsih, 2021) that the use of aromatherapy is one of the references for complementary therapy that is right to be applied because it can provide positive stimulus to the brain, this is also in accordance with the results of research (Rosna et al., 2024) stated that the use of lavender aromatherapy can reduce feelings of anxiety in mothers who are going to give birth. According to research (Lestari & Nursing, 2023) that giving lavender aromatherapy to pre-operative patients before surgery can reduce the level of anxiety that occurs. The purpose of this review literature is to analyze the effectiveness of lavender aromatherapy on reducing anxiety levels.

METHOD

The method used is descriptive, which is a form of research used in a literature review with some data that has been found. Recapitulated by finding and searching for appropriate articles and through a systematic process from several articles, then choosing the topic to be discussed, then using keywords; lavender aromatherapy and anxiety levels, then the search for articles is carried out by collecting themes that match the inclusion criteria for 2020-2024 in the technique of sampling articles according to certain characteristics in a population desired by the researcher, therefore the inclusion and exclusion criteria are determined in English and Indonesian full text. Total articles 300, then analyzed according to the inclusion criteria 6 articles (Siregar & et al, 2021). The selection criteria for this study are illustrated in the Prism chart attached in Figure 1.

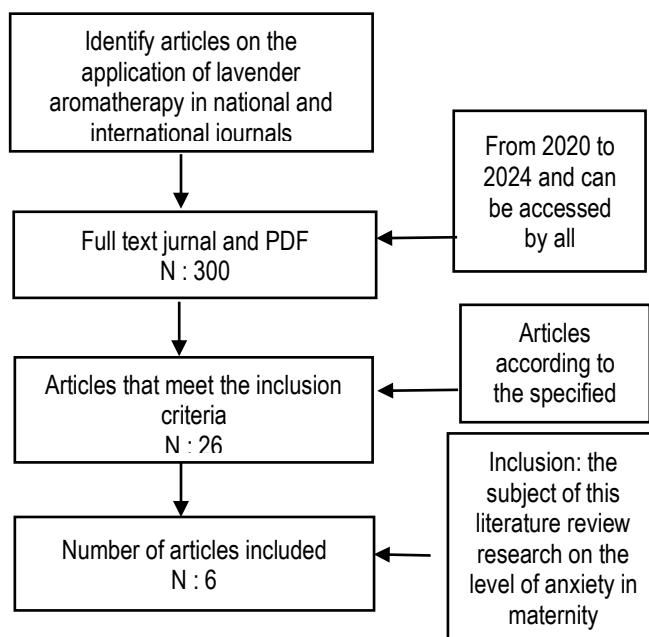


Figure 1. PRISMA Flow Chart

RESULTS

There are journals found and then selected accordingly. This Literature Review becomes a bibliography with different years, so that it can be found in full text in PDF file format. The journal is also adjusted to the selected inclusion criteria. The study characteristics of this literature review are presented in table 1.

Table 1. Study Characteristics

Author and Year	Research Title	Variables, Instruments and Analysis	Factor Analysis Results	Summary of Results
Reni Roniati dkk, 2021.	The Effect of Lavender Aromatherapy on Reducing Anxiety in Maternity Women	Design: Quasi-experimental. Sample: 34 people with accidental sampling technique using pretest-posttest group design with Mann-Whitney Test. Variables: independent Lavender aromatherapy Dependent Variable: Anxiety level	There is an effect of giving lavender aromatherapy on reducing anxiety. All respondents totaling 34 people, the majority (67.6%) were of productive age, most had a high school education (50%). Before lavender aromatherapy was given, there were 34 people (100%), who experienced moderate anxiety before giving birth. After being given lavender aromatherapy, there were 34 people (100%), who experienced mild anxiety.	The results of the research were that 34 respondents experienced moderate anxiety (100%), before being given lavender aromatherapy and after being given lavender aromatherapy, anxiety levels decreased.
Rosna dkk, 2024	The Effect of Lavender Aromatherapy to Reduce Anxiety Facing Childbirth in the Third Trimester of Pregnancy III	Design: Quasi-experimental. Sample: 94 people with accidental sampling technique using One Group Pre-Test Post-Test Design. Variables: independent Lavender aromatherapy Dependent Variable: Anxiety level	There is an effect of giving lavender aromatherapy to reduce anxiety during labor. Some of the respondents, totaling 72 people (74.2%) were high school educated, most of whom were of productive age (70%). Before being given lavender aromatherapy, there were 31 people (32.2%), who experienced moderate anxiety. After being given lavender aromatherapy, there were 28 people (28.9%),	The results of the study showed that there was an effect of giving lavender aromatherapy on the level of maternal anxiety in the third trimester of 94 respondents

			who experienced mild anxiety	
Istiqomah dkk, 2021.	The effect of lavender aromatherapy on anxiety mother giving birth	Design: Quasi-experimental. Sample: 15 people with total sampling technique using One Group Pre Test Post Test Design. Variables: independent Lavender aromatherapy Dependent Variable: Anxiety level	There is an effect of giving lavender aromatherapy to reduce anxiety during childbirth.	The results of the study showed that the majority of respondents (15) felt that lavender aromatherapy had a reduced effect on the level of anxiety in mothers giving birth.
R. Tri Rahayuning Lestari dkk, 2023.	The effect of lavender aromatherapy on pre-operative anxiety levels in patients	Design: one group pretest-posttest design Sample: 30 people pre-experimental using non-probability sampling technique (purposive sampling) Instrument: interview Analysis: descriptive test and Wilcoxon test	There is an effect of giving Lavender Aromatherapy on the anxiety level of pre-operative patients with spinal anesthesia.	The results of the study showed that before the intervention, 29 respondents experienced moderate anxiety (96.7%). After the intervention, 18 respondents experienced moderate anxiety (60%).
Sevil dkk, 2023.	The effect of lavender aromatherapy on the anxiety levels of students taking tests and academic achievement	Design: Quasi-experimental. Sample: 82 people with random sampling technique using One Group Pre Test Post Test Design. Variables: independent Lavender aromatherapy Dependent Variable: Anxiety level	There is an effect of giving lavender aromatherapy to reduce anxiety in students taking tests and academic achievement.	The results of the study showed that there was an effect of giving lavender aromatherapy on the level of anxiety of mothers taking tests and academic achievement.
Intan Asri N dkk, 2022.	The Effect of Lavender Aromatherapy on Preoperative Patient Anxiety	Design: Quasi-experimental. Sample: 40 people with purposive sampling technique using pretest-posttest group design with Wilcoxon test. Variables: independent Lavender aromatherapy Dependent Variable: Anxiety level	There is an effect of giving lavender aromatherapy on reducing anxiety. All respondents totaling 40 people with the majority (35%) aged 35-59 years, most of them had a high school education (57.5%). Before lavender aromatherapy was given, there were 20 people (50%), who experienced moderate anxiety. After being given lavender aromatherapy, there were 40 people (100%), who experienced mild anxiety	The research results showed that all 40 respondents experienced mild anxiety (100%), after given lavender aromatherapy

DISCUSSION

According to (Lestari & Nursing, 2023) anxiety is a condition in which a person experiences tension due to external factors from the body's tissues. The level of anxiety in each individual varies greatly according to a person's experience caused by many things including both internal and external factors. Anxiety is a psychological problem that arises because of feelings of worry about something that is not yet clear. This anxiety arises because there is a negative impact and physiological stimulation appears (Agustiningsih et al., 2022). Anxiety arises from feelings of tension, worried mindsets, there are body responses such as: heart palpitations, and increased blood pressure (Stuart G. W., 2023).

This aromatherapy is an alternative treatment and care for a person's body which generally uses an aromatic plant extract, this is the same as the research conducted (Hatami, Tahmasbi, & Hatami Shahmir, 2017) that lavender aromatherapy can be a guideline in complementary therapy, namely using lavender essential oil which can provide a comfortable impact, make psychological conditions and feelings more balanced, thoughts and feelings will relax, which has an impact on a person's psychological condition to be calmer. According to research (Rahmawati A.Hafidz, Heroyanto Heroyanto, 2021) aromatherapy can improve a person's physical and psychological condition and make people relax for tense brain and muscle systems. It is a form of way to improve a person's health and smooth the body's metabolic process, body relaxation is needed, so that it has a positive impact on increasing self-esteem.

Based on the results of the study (Mirazanah et al., 2021), the level of anxiety of mothers in labor after being given lavender aromatherapy decreased, so there is an effect of giving lavender aromatherapy on maternal anxiety during labor, something happens because lavender oil contains linalol acetate in the content if inhaled and enters the nose which will then enter the nervous system and continue to the brain system. The brain will start working as a center for memory and mood that makes a person relaxed, calm and able to reduce feelings of worry that arise, and the scent of lavender can stimulate the hypothalamus to release enkephalin, which can stimulate the brain to release serotonin which makes it calm and relaxed.

Based on the results of the study (Lestari & Nursing, 2023) that the administration of lavender

aromatherapy affects the decrease in the level of anxiety of pre-operative patients because by inhaling lavender aromatherapy, it will stimulate the olfactory nervous system and activate the brain system, namely the limbic, making a person comfortable, more relieved especially in the respiratory system, nerves and muscles of the body become relaxed and able to reduce feelings of anxiety that arise. Also in accordance with research (Guler et al., 2023) that inhalation of lavender oil can reduce anxiety, because fragrant lavender oil is made from volatile herbal ingredients that make all muscles relax. Lavender has also been used for centuries to make people calm and sleep easily, several clinical trials have been conducted exploring the effectiveness of lavender oil which has been shown to be very beneficial for mood and increase relaxation so that there is an increase in beta power in the EEG which works and reduces the symptoms of anxiety that appear.

According to research (Abdalhai, Kouchaji, & Alkhatib, 2024) states that lavender aromatherapy can reduce children's anxiety during dental check-ups, because these aromatic molecules affect the limbic system and amygdala which provide stimulation to the sense of smell and release neurotransmitters so that they create happiness hormones that have a positive impact on improving mood and making you calm, besides that lavender has a non-pharmacological role that can activate the central nervous system because it contains linalool, and is able to inhibit glutamatergic receptors and bind to GABA receptors similar to benzodiazepines which provide a sedative effect on the CNS, meaning the same as providing calm in a person's body. The implications of the results of this review literature are that lavender aromatherapy can be applied to reduce a person's anxiety level, especially during childbirth.

CONCLUSION

Aromatherapy is an essential oil made from lavender oil, which according to several studies, lavender oil can reduce a person's anxiety level.

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