



# Effects of *Echium amoenum* Extract and Lavender Flora on the Anxiety of the Older Adult: A Parallel Randomized Clinical Trial

Hossein Bagheri<sup>1</sup>, Elham Vahidpour<sup>2</sup>, Shahrbanoo Goli<sup>3</sup>,  
Mohammadreza Ameri<sup>2</sup>, Mohammad Reza Khatibi<sup>1\*</sup>

<sup>1</sup>School of Nursing and Midwifery, Shahroud University of Medical Sciences, Shahroud, Iran

<sup>2</sup>Student Research Committee, School of Nursing and Midwifery,  
Shahroud University of Medical Sciences, Shahroud, Iran

<sup>3</sup>Department of Epidemiology, School of public health, Shahroud University of Medical Sciences, Shahroud, Iran

## OPEN ACCESS

### \*Corresponding Author:

School of Nursing and  
Midwifery, Shahroud University  
of Medical Sciences, Shahroud,  
Iran

### Citation:

Bagheri H, Vahidpour E, Goli S,  
Ameri M, Reza Khatibi M.  
Effects of *Echium amoenum*  
Extract and Lavender Flora on  
the Anxiety of the Older Adult:  
A Parallel Randomized Clinical  
Trial. *Iranian biomedical  
journal*. Supplementary (12-  
2024): 129.

## ABSTRACT

**Introduction:** Older adults are at the highest risk of declining physical, mental, and cognitive abilities, among which anxiety is one vital complication. This study was conducted to compare the effectiveness of *Echium amoenum* and lavender extract on the stress of older adults.

**Methods and Materials:** In this randomized controlled trial, 189 older adults aged 60-86 were selected using a block size 6. They were then divided into three groups: *Echium amoenum* (n = 63), lavender (n = 63), and control (n = 63). In the *Echium amoenum* group, participants were asked to take a 250 mg capsule of *Echium amoenum* every eight hours. In the lavender group, participants were instructed to apply three drops of lavender flora onto a non-absorbable napkin and attach it to their left shoulder.

**Results:** The changes in the mean anxiety levels between the first two study groups were not significant ( $p = 0.34$ ). However, both intervention groups showed a significant difference in anxiety compared to the control group ( $p = 0.05$ ).

**Conclusion and Discussion:** *Echium amoenum* and lavender extract can be complementary methods to reduce anxiety.

**Keywords:** Adult, Anxiety, Clinical trial