

ABSTRAK

FORMULASI SEDIAAN KRIM WAJAH ANTIJERAWAT MINYAK ATSIRI BUNGA LAVENDER (*Lavandula angustifolia*) DENGAN BASIS PARAFFIN CAIR DAN UJI AKTIVITAS ANTIBAKTERI TERHADAP *Propionibacterium acnes*

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Latar Belakang : Jerawat merupakan peradangan kronik yang ditandai dengan adanya komedo, papula, inflamasi lesi, nodul yang biasanya mempengaruhi remaja bahkan dewasa. Penyebab munculnya jerawat salah satunya disebabkan oleh bakteri yaitu *Propionibacterium acnes*. Penelitian ini bertujuan untuk memformulasikan krim anijerawat minyak atsiri bunga lavender dengan basis paraffin cair serta uji aktivitas terhadap bakteri *Propionibacterium acnes*.

Metodologi : Penelitian yang dilakukan meliputi pembuatan sediaan krim minyak atsiri bunga lavender dengan penambahan konsentrasi paraffin cair 3-18% (v/v), dilakukan pengamatan terhadap sifat fisik dan stabilitas fisik serta uji aktivitas antibakteri terhadap bakteri *Propionibacterium acnes*. Hasil data uji fisik dan stabilitas dilakukan analisis secara deskriptif dan menggunakan uji *Kruskal-wallis*.

Hasil Penelitian : Penambahan konsentrasi paraffin cair pada keempat formula menyebabkan peningkatan viskositas dan daya sebar, menurunkan daya lekat, stabil selama penyimpanan pada uji *Freeze-thaw* serta formula terpilih (Formula II) memiliki aktivitas terhadap bakteri *Propionibacterium acnes*.

Kesimpulan : Formula terpilih yang memenuhi persyaratan fisik dan stabilitas fisik sediaan krim minyak atsiri bunga lavender yaitu formula II dengan konsentrasi paraffin cair 8% (v/v) serta memiliki aktivitas antibakteri terhadap *Propionibacterium acnes* dengan diameter zona hambat 19,16 mm.

Kata Kunci : Krim, Minyak atsiri bunga lavender, Paraffin cair, *Propionibacterium acnes*

ABSTRACT

FORMULATION OF CREAM ANTI ACNE OIL FLOWER LAVENDER (*Lavandula angustifolia*) WITH PARAFFIN LIQUID BASE AND ANTIBACTERY ACTIVITY TEST ON *Propionibacterium acnes*

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Background: Acne is a chronic inflammation characterized by comedones, papules, inflammatory lesions, nodules that usually affect teenagers and even adults. Acne can be caused by acne-causing bacteria is *Propionibacterium acnes*. The purpose of this study is to formulate cream of lavender essential oil with liquid paraffin base and activity test for *Propionibacterium acnes* bacteria.

Methodology: The study included preparation of lavender flower oil cream with addition of liquid paraffin concentration of 3-18% (v/v), observation on physical properties and physical stability and antibacterial activity test against *Propionibacterium acnes* bacteria. The results of physical test and stability data were analyzed descriptively and using Kruskal-wallis test.

Result: The addition of liquid paraffin concentration in all four formulas caused increased viscosity and dispersion, decreased adhesion, stable during storage on Freeze-thaw test and the selected formula (Formula II) had activity on *Propionibacterium acnes* bacteria.

Conclusions: The selected formula that meets the physical requirements and physical stability of the lavender flower essential oil cream is the formula II with the liquid paraffin concentration of 8% (v/v) and has antibacterial activity against *Propionibacterium acnes* with the inhibitory zone diameter of 19.16 mm.

Keywords: Cream, Essential oil of lavender, Paraffin liquid, *Propionibacterium acnes*