

ABSTRACT

Streptococcus mutans is a gram-positive bacterium that causes halitosis and caries. Based on the results of previous research, Cananga (*Cananga odorata*) flowers have good antibacterial activity due to the content of several secondary metabolites in the form of flavonoids, saponins and tannins. Dental and oral diseases in the form of halitosis and caries are common diseases in children. This is the purpose of the study, namely to determine the antibacterial effectiveness of Cananga (*Cananga odorata*) flower extract against *Streptococcus mutans* which causes halitosis and caries as well as its application to toothpaste and chewing gum products. This study used a completely randomized design (CRD) method, while the antibacterial activity was tested using the Kirby-Bauer disk diffusion using four concentrations of Cananga extract, namely 25%, 50%, 75%, 100%. Positive control disc antibiotic was Amoxicillin 25µg and negative control was aquadest. Meanwhile, the organoleptic test of toothpaste and chewing gum products used ten children as panelists. Based on the results of the study, the average diameter of the inhibition zone at concentrations of 25%, 50%, 75%, 100% was 2.9 mm, 2.9 mm, 1 mm, and 0.8 mm, respectively. The average diameter of the inhibition zone was analyzed qualitatively, namely the larger the diameter of the inhibition zone, the greater the effectiveness of Cananga (*Cananga odorata*) flower extract in inhibiting bacterial growth. Organoleptic tests conducted on the texture, aroma and taste of toothpaste and chewing gum showed that toothpaste was more interested in terms of aroma and texture, while chewing gum was more interested in terms of taste and texture. This study concluded that Cananga (*Cananga odorata*) flower extract proved to be effective as an antibacterial against *Streptococcus mutans* and chewing gum was more attractive to children as an alternative form of reducing halitosis and caries.

Keywords: Cananga (*Cananga odorata*), *Streptococcus mutans*, Kirby-Bauer disk diffuser, organoleptic test, toothpaste, chewing gum, halitosis, and caries