ABSTRACT

TITLE:	Analysis of Antimicrobial Activity of Yarrow (Achillea millefolium)
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ABSTRACT: With the increased use of antibiotics, antibiotic resistant bacteria have become prevalent. Plants have been a valuable source of medicinal compounds to treat infections. Achillea millefolium (yarrow) has been used for many medicinal purposes and recent studies show that yarrow extracts may exhibit antimicrobial activity. The goal of this study is to test if yarrow has antimicrobial activity; specifically, if the flower extract will be effective at inhibiting the growth of certain microorganisms. Both ethanolic and petroleum ether flower extracts were tested against the microorganisms Staphylococcus aureus, a gram positive bacteria, Escherichia coli, a gram negative bacteria, and Saccharomyces cerevisiae, a eukaryotic budding yeast. In the Kirby-Bauer disk diffusion test, the ethanolic flower extract had the greatest inhibitory effect against Staphylococcus aureus and Saccharomyces cerevisiae. The ether extract slightly inhibited the same two microorganisms. Both extracts showed no significant activity against Escherichia coli. This research could be beneficial because it could lead to a new antibiotic and perhaps certain bacteria would be unable to gain resistance to it.