



### ABSTRACT

The study was carried out to detect anti-quorum sensing activity of methanol and deionized extracts of *Ehretia microphylla* Lam., *Mentha arvensis* Linn. and *Vitex negundo* against *Pseudomonas aeruginosa* and *Staphylococcus aureus* selected virulence factors at the translational level. All extracts did not exhibit antibacterial activity against *S. aureus* and *P. aeruginosa* through disk diffusion. Methanol extracts of *Ehretia microphylla* Lam., *Mentha arvensis* Linn. and *Vitex negundo* exhibited anti-quorum sensing activity towards *Chromobacterium violaceum*. Virulence assays revealed the presence of anti-quorum sensing activity of water extracts of *M. arvensis* and *V. negundo* against alpha hemolysis; none of the extracts inhibited DNase of *S. aureus*. In *P. aeruginosa*, only the methanol extracts of *V. negundo* decreased swarming motility, while all the methanol extracts caused significant reductions in pyocyanin production at 520nm. *Vitex negundo* extracts exhibited the most anti-quorum sensing activity against the test bacteria in three of the four virulence assays. The results show a considerable potential of the selected medicinal plants as alternative to antibiotics in preventing pathogenicity through inhibition of virulence factor production, while more importantly, preventing selective pressure for development of resistance.

