Comparison of Commercial and Natural Disinfectants and Their Effect on Microorganisms

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The current epidemiological situation has overwhelmed us with information about the prevention of Covid-19 and, within this, also about the necessary hygiene habits, e.g. in connection with the use of antibacterial agents. The question of whether this is just a marketing ploy prompted us to carry out this research. We decided to compare different types of commercial soaps and disinfectant gels, which, according to the manufacturers, should have a disinfectant effect on pathogen micro-organisms. As a substitute for commercial disinfectants, we created and tested a natural disinfectant spray and soap with extracts of aloe vera, collous amboinicum, and lavender, as well as a hand sanitizing cream made from extracts of lavender, garlic and coffee. We conducted research in the lab, in which we applied various disinfectants to volunteers and then observed the results of culturing microorganisms from fingerprints from nutrient soil samples in the lab. We identified the microorganisms in question and investigated their responses to the disinfectants. As a control sample we used clean nutrient media and also the fingerprints of volunteers on nutrient media who did not apply the given products. We consulted the results obtained with experts. It is necessary to comply with hygiene regulations, but we do not always have to resort to commercial products, even under the influence of advertising, especially when natural products serve us just as well.

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