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DEVELOPMENT OF ALTERNATIVE COOLING PADS FOR FEVER USING ALOE BARBADENSIS MILLER (ALOE VERA) AND CUCUMIS SATIVUS (CUCUMBER) PEELS

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ABSTRACT

Fever is a common health concern, often requiring effective cooling methods to regulate body temperature. This study explores the development of an alternative cooling pad using Aloe Barbadensis Miller (Aloe Vera) and Cucumis Sativus (Cucumber) Peels due to their natural cooling, anti-inflammatory, and hydrating properties. A True Experimental Design was employed to determine the efficacy of these ingredients in reducing body temperature. The cooling pads were formulated using varying concentrations of Aloe Vera gel and Cucumber Peel extract, along with potato starch for consistency and essential oil for added therapeutic benefits.

The study tested the cooling pads on induced fever conditions in controlled subjects. Results indicated that the combination of 25% Aloe Vera gel and 50% Cucumber Peel extract demonstrated the most effective cooling capacity, significantly reducing body temperature within an hour. The product was well tolerated, with no observed skin irritation or allergic

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reactions. Statistical analysis using an independent t-test confirmed the significant impact of the cooling pads in temperature reduction compared to a control group.

Findings suggest that Aloe Vera and Cucumber Peel-based cooling pads are a viable, natural, and cost-effective alternative to commercial cooling methods. Further research is recommended to explore shelf-life stability, antibacterial properties, and dermatological safety for wider clinical application.