

***The Effect of Isotonic Melon Juice Combined with Lime on Sodium Levels in Physically Stressed Wistar Rats***

**Anisatul Azizah Fiddaroin**

*Clinical Nutrition Program*

*Department of Health*

***ABSTRACT***

*Physical activity can disrupt body fluid balance, leading to physical stress and often resulting in the loss of essential electrolytes such as sodium. Therefore, restoring fluids and electrolytes after physical activity is essential. This study aimed to determine the effect of an isotonic drink made from melon fruit juice combined with lime on sodium levels in dehydrated Wistar rats. This study used a true experimental design with a pretest–posttest with control group approach. The sample consisted of 24 Wistar rats divided into three groups, each receiving a beverage intervention at a dose of 4.5 mL. The control group (K) received distilled water, treatment group 1 (P1) received a commercial isotonic drink, and treatment group 2 (P2) received an isotonic drink made from melon fruit juice. The pretest results showed no significant differences in sodium levels among the groups ( $p = 0,934$ ). The results of sodium levels before and after the intervention showed no significant difference in the control group (K) ( $p = 0,285$ ), while significant differences were observed in treatment group 1 (P1) ( $p = 0,006$ ) and treatment group 2 (P2) ( $p = 0,002$ ). In addition, there was a significant difference in the change in sodium levels among the groups before and after the intervention ( $p = 0,005$ ). In conclusion, the isotonic drink made from melon fruit juice combined with lime had a significant effect on sodium levels in dehydrated Wistar rats.*

**Keywords:** *Physical Stress, Sodium, Melon, Lime*