

ABSTRACT

Dysmenorrhea is a common menstrual issue among teenagers. Indonesia has a 64.2% prevalence of dysmenorrhea, of which 54.9% are primary cases and 9.4% are secondary cases. Indonesia disposed of about 23-48 million tons of food waste per year between 2000 and 2019, per the finding of research by the Ministry of National Development Planning/National Development Planning Agency (PPN/Bappenas) and several entities. The goal of this study was to determine the efficacy and ideal combination of calcium extraction from fish bones and dark chocolate powder to lessen the severity of dysmenorrhea. Using a 1.5N NaOH base, we extracted calcium from catfish bones. In this study, three different formulas were employed; the first formula contains 500 mg of calcium-extracted catfish bone calcium extraction, the second formula contains 700 mg of dark chocolate, and the third formula contains 350 mg for each fish bone calcium extraction and dark chocolate. Researchers are gathering three respondents based on the previously given criteria as part of their strategy stage for examining the outcomes of the satisfaction survey for each formula. The lab test results for each variable are as follows: the first formula contains 2.26% of calcium and 1.46% of magnesium; the second formula contains 1.53% of calcium and 4.98% of magnesium; and the third formula consists of 24.90% of calcium and 2.06% of magnesium. The formula that received the best feedback from our consumers is F3, which lowers the pain scale from 5.5 to 0. So, the third formula, which contains 350 mg of calcium from fish bones and 350 mg of dark chocolate, is the product variable that is most ideal for reducing the degree of dysmenorrhea among the three variables, based on the survey findings and the composition content.

Keyword: Dysmenorrhea, Catfish bone, Dark chocolate