C11 Determination and comparison of total sugar content, nutritional value and price in 3-in-1 beverage from local supermarket

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Sugary drinks were defined as all types of beverages containing free sugars, and these include carbonated or non-carbonated soft drinks, fruit or vegetable juices and drinks, liquid and powder concentrates, flavoured water, energy and sports drinks, ready-to-drink tea, ready-to-drink coffee, and flavoured milk drinks. This study was conducted to determine the total sugar content, nutritional value, and price of three different flavours of selected 3-in-1 beverages. Besides, the aim of this study is to create awareness of choosing a healthy beverage and control the intake of sugar-sweetened beverages. A total of 15 3-in-1 beverages were collected in the study, with five different brands of coffee, tea, and cocoa flavours, respectively. The 3-in-1 beverage samples were collected by a stratified random sampling method. The nutrition information was collected from labels, and the price was collected from the price tag on the shelf. The nutrition information and price of the selected 3-in-1 beverage were photographed using a smartphone. In terms of total sugar content, the median total sugar of tea flavours is significantly higher than coffee and cocoa flavours ($p=0.179$). In terms of nutritional value, tea flavours had significantly higher energy ($p=0.427$), total fat ($p=0.113$) and total carbohydrate ($p=0.058$) than coffee and cocoa flavours. Meanwhile, cocoa flavours had significantly higher protein ($p=0.012$), fibre ($p=0.488$) and price ($p=0.044$) than tea and coffee flavours. According to a recent study, excessive sugar consumption is linked to a variety of health problems such as heart disease, stroke, obesity, diabetes, high blood cholesterol levels, cancer, and dental caries. In conclusion, this study will be useful in future studies related to the determination and comparison of sugar content, nutritional value, and price of three-in-one beverages in order to shorten the time of analysis.