

İstanbul, November 26-27 2024

III. INTERNATIONAL

MINERAL WATER CONGRESS

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**BİR ÖMÜR
MADEN SUYU**

**III. INTERNATIONAL
MINERAL WATER CONGRESS**

**III. ULUSLARARASI
MADEN SUYU KONGRESİ**

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III. INTERNATIONAL MINERAL WATER CONGRESS

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Label-Based Content Evaluation of Bottled Mineral Water Sold in Turkish and Swedish Markets

Selcen Şentürk, * Tuba Yoldaş, ** Elif Günalan***

Abstract

Bottled mineral waters (BMWs) have great potential to modulate optimal health with content. Their contents may vary according to various criteria, such as country, manufacturer, source, and industrial process (1). Due to its location, Türkiye is among the countries rich in natural mineral waters. Therefore, the mineral content has the potential to be higher than that of sparkling mineral waters, especially in European countries. Although the content of sparkling mineral waters sold in European countries' markets was frequently investigated in the literature (1-2), there was limited data regarding the contents of mineral water in Türkiye. This study aims to compare the label-based content of bottled sparkling mineral water in the Swedish market with that of their counterparts in Türkiye. In this context, the samples were selected from supermarkets in Istanbul, Türkiye (n=21), and Umeå, Sweden (n=18). Sweetened carbonated beverages were excluded from the study. Concentrations of bicarbonate, sodium, potassium, calcium, fluoride, chloride, magnesium, and sulfate were obtained from the labels on the bottles. Descriptive statistics, normality, and Welch ANOVA tests were applied via Jamovi software (*version 2.6.2*). The range levels of mineral content in bottles vary reasonably widely in both countries. The most remarkable difference in median mineral content was found for magnesium, with 3.1 mg/L in Sweden and 62.1 mg/L in Türkiye. All mineral concentrations except sulfate and fluoride were significantly higher in mineral waters in the Turkish market than in Sweden ($p < 0.05$). Fluoride concentration in Swedish BMWs was significantly higher than in Türkiye ($p < 0.05$). The vast range of mineral contents in BMWs can be a concern for hypertension, kidney, and urological diseases. Therefore, label-based interventions, legal regulations, and legislation should provide consumer and manufacturer awareness. Considering the limited data in this study, more comprehensive studies on the contents of natural mineral waters should be planned in the future.

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