A HANDS-ON EDUCATIONAL TO INCREASE KNOWLEDGE AND CONSUMPTION OF MILK-CONTAINING FOODS

Trisha Bergjord and Kendra Kattelmann
Nutrition, Food Science, and Hospitality Department
South Dakota State University
Brookings, SD 57007

ABSTRACT

Children are not meeting the calcium Daily Reference Intake goal of 1300 mg/day during the critical growth period. A five year study conducted in Minnesota on student's eating patterns found that milk drinking dropped from an average of 2.5 times per day in third graders to 1.9 times per day. Calcium intake is one of the factors that effects bone density and a decreased intake may lead to an increased risk of developing osteoporosis later in life. The objective of this study is to determine in elementary (third through fifth grades) students if a hands-on educational lesson that includes food preparation techniques of a milk product will increase (1) knowledge of calcium containing foods and (2) consumption of milk containing foods. The hypothesis is that a hands-on educational lesson which includes food preparation techniques will increase knowledge and consumption of milk containing foods compared to an educational lesson alone. One hundred eight six students in eleven elementary school classes, third through fifth grade, were randomized by class to receive the educational program (control group) or an educational program with hands-on food preparation technique (experimental group). Consumption of milk was determined by measuring milk-waste in the school lunchroom before and approximately 6 weeks after the educational experience. Both experimental and control groups received information on how to get adequate calcium into the daily diet and the importance of calcium in the human body through an age-appropriate educational presentation. Students in the experimental group participated in the hands on lesson by learning to prepare a low-fat, dairy snack. The educational experience enhanced the students' knowledge on retention of knowledge about calcium containing foods and its importance in the body. However, milk consumption was not altered by the educational experience.