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## **PhD Dissertation Defense**

**Entitled** 

THE IMPACT OF SCHOOL-BASED INTERVENTION FOR OVERWEIGHT AND OBESE 9-13-YEARS-OLDS ON ANTHROPOMETRY, NUTRITION, KNOWLEDGE, ATTITUDES, SELF-EFFICACY AND DIETARY BEHAVIORS.

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Date & Venue

Monday, 27 February 2023 2:00 pm F3-134

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## **Abstract**

Childhood obesity has emerged as an important public health concern in the United Arab Emirates (UAE). The current study was undertaken to evaluate the impact of the school-based nutritional educational intervention on overweight/obese school children's fruit and vegetable intake, anthropometric measures, knowledge, attitude, self-efficacy, and practice scores. It also sought to consider parents' views on factors contributing to childhood obesity. The 6-month intervention guided by the Social Cognitive Theory (SCT) was conducted in 36 public schools in Dubai and Sharjah, UAE among 9-13-year-old students (n=403). The study included three groups (2 interventions and 1 control). The control group (n=114) was exposed to a conventional nutrition-related curriculum for students. Intervention Group 1 (n=148) participated in the interventions involving only the children and Intervention Group 2 (n=141) involved the children, parents, family members, and peers. knowledge scores among children in Group 1 were significantly higher compared to children in Group 2 but not significantly different compared to the control group. The percentage of children eating five or more servings of fruits and vegetables per day increased from 12.28% to 38.60% (p<0.00) for the Control, from 4.14% to 40% (p<0.00) for Intervention Group 1, and from 2.84% to 40.42% (p<0.00) for the Intervention Group 2. Multiple linear regression showed that children in Intervention Group 1 Dubai had a significant increase in knowledge scores compared to children from control Sharjah (β (95% CI):1.22(0.31,2.13)) but no significant differences in any of the anthropometric measures between the groups, whilst adjusting for age and gender. Therefore, the nutritional intervention was effective in enhancing the nutritional knowledge and self-efficacy of the participants. Results from the parents' interviews identified 3 main themes: (1) Negative effects of obesity on children's lives; (2) Barriers to weight management and healthy eating, and (3) Facilitators to healthy eating. This study shows that school-based nutrition interventions are effective in increasing nutrition knowledge and intake of fruits and vegetables among overweight/obese school children.

**Keywords:** School children, obesity, social cognitive theory, nutritional education intervention, nutritional knowledge, fruit and vegetable intake, parents, peers