Three years follow up (cohort) study via population-based intervention on adolescent and childhood obesity and overweight at schools setting

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Background: Obesity and overweight are recognized as major global public health phenomena. Its long-term consequences are many of wide variety of chronic conditions including high blood pressure, type 2 diabetes, stroke, cardiovascular disease, and certain forms of cancer; which in turn are primary drivers of healthcare spending, disability, and deaths, childhood obesity is complex and multidimensional, which has been identified as a public health priority. It is also recognized that obesity decreases the quality of life and life expectancy considerably.

Objectives: To assess population-based childhood obesity intervention over three years at the school population in Dubai. To examine the childhood obesity intervention outcome.

Methodology: About 2600000 students age range (5-18) years grade (1–12) over about 180 private schools in Dubai over three consequence academic years 2014-2015, 2015-2016 and 2016-2017, BMI measurement as per CDC criteria and chart, WHO (mean +/- SD) centile body weight at the beginning of each academic year (September), wide variety of interventions been designed an applied e.g. wellbeing advancement, school Nutritional instruction exercises, Food naming, upbeat schools activities, 10/10 activity physical action stage, guardians mindfulness, understudies wellbeing document activity, City Makers (blue group activity), community participation, private–public partnership, Governmental stockholders intersectoral collaborations school cantina policy and guideline, BMI and other age and gender-based BMI and centile measurement done at the end of academic year (June) for (3) successive academic years.

Results: The current study revealed that about 8.7% of the total students population in private schools in Dubai were obese and about 1.4% of the total students’ were morbidly obese in a total of 10.1% of the total students were obese of different severity. The study showed that the prevalence of obesity among student population at private schools in Dubai during the academic year 2015-2017 was 9.05% the study showed 0.9% reduction of obesity comparing the academic year 2014-2015 to academic year 2015-2016), the study reflected that prevalence of obesity among student population at private schools in Dubai during the academic year 2016-2017 was 8.2% which was about 1.3% less compared to the prevalence of obesity during the academic year (2015-2016). The study revealed that the trend of obesity prevalence among students population at private schools in Dubai is declining over that last three academic years (2014-2015, 2015-2016, 2016-2017) showing that about 2.2% total reduction the three years period of applying for effective intervention program.

Conclusions: Multi-disciplinary public health intervention for childhood obesity is successful in producing weight loss in the short and long term when stakeholders brought on board effective mean.

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