Obesity education: A needs assessment of the medical school curriculum

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Background

• Obesity is a multifactorial chronic disease that affects at least 41.9% of the US adult population, with higher rates seen in minority groups.1 The prevalence of obesity continues to rise, with the medical cost for obesity in the United States estimated at $173 billion in 2019.2 Obesity has adverse health effects on every organ of the body and is one of the largest contributors to the burden of preventable, noncommunicable diseases like heart disease, stroke, and cancer.1

• Despite obesity’s prevalence, cost, and adverse health effects, medical students lack training in obesity and obesity management.3,4

• An obesity education focus group was formed with faculty from CWRU School of Medicine, Cleveland Clinic, and MetroHealth (1) to assess the current state of obesity education at CWRU School of Medicine and (2) to improve obesity education (Figure 1).

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• Obesity education: A needs assessment of the medical school curriculum at CWRU School of Medicine.

• Causes of obesity

• Genetics

• Environment

• Development

• Biology

• Economics

• Behavior

• Psychology

• Chronic Disease of Obesity

Figure 1: Causes of obesity

Population

• This practicum was done in conjunction with the CWRU School of Medicine, Cleveland Clinic, and MetroHealth with a focus on the preclinical medical school curriculum at CWRU School of Medicine.

• A team-based learning session on obesity pathogenesis held on November 17, 2021 (Obesity Pathogenesis) and January 19, 2022 (Obesity Treatment) for all first-year medical students (Figure 4).

• New curricular materials were developed and introduced into the curriculum (Figure 4).

• Meetings were held with all block leaders to discuss the recommendation sheets in detail.

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• Two, two-hour team-based learning sessions were held on November 17, 2021 (Obesity Pathogenesis) and January 19, 2022 (Obesity Treatment) for all first-year medical students (Figure 4).

• The sessions were facilitated by two obesity medicine physicians, a diettian, a professor in nutrition, and a second-year medical student.

• A standardized patient was incorporated into a communication workshop for students to practice counseling patients with obesity.

• How to communicate with important stakeholders and advocate for curricular revision of current curricular content and the addition of new curricular content to better adhere to the OMEC competencies. Recommendation sheets were emailed to all block leaders in the CWRU School of Medicine Curriculum (Figure 3).

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Activities

• An audit of the current CWRU School of Medicine preclinical curriculum was completed for comparison with OMEC competencies. The school’s current preclinical curriculum was studied to determine the prevalence of OMEC competencies, using a Likert scale (from 1 to 5) to rate the degree of implementation of each competency (Figure 2).

• Based on the audit, evidence-based recommendations were made for the revision of current curricular content and the addition of new curricular content to better adhere to the OMEC competencies. Recommendation sheets were emailed to all block leaders in the CWRU School of Medicine Curriculum (Figure 3).

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Deliverables

1. Audit of the CWRU School of Medicine curriculum with comparison to OMEC competencies (Figure 2).

2. Recommendation sheets for each of the 8 blocks in the CWRU School of Medicine curriculum (Figure 3).

3. New curricular materials for first-year medical students: (1) two team-based learning sessions (Figure 4), (2) two exam questions on obesity, and (3) a standardized patient to practice counseling patients with obesity.

Figure 2: Example of recommendation sheet (excerpt from Block 2 Recommendations)

Longitudinal Obesity Medicine Curriculum at CWRU School of Medicine

Figure 3: Example of recommendation sheet (excerpt from Block 2 Recommendations)

Figure 4: Longitudinal obesity medicine curriculum

Lesson Learned

• How to lead a multidisciplinary group to accomplish a common goal.

• How to communicate with important stakeholders and advocate for curricular change.

• How to develop evidence-based, obesity-related educational materials for future healthcare professionals.

Public Health Implications

• Despite the fact that obesity is one of the most pressing US public health concerns, there remains a lack of obesity education in medical training.

• There are few studies that create novel curricular components for obesity education in medical curricula.

• This study introduced both longitudinal improvements in obesity education, as well as a two-part seminar on obesity pathogenesis and treatment.

• This study provides a framework for other medical schools to adopt in order to improve obesity education nationally.

• Future studies will work to quantify the effect of these educational interventions on medical student obesity knowledge and attitudes.

• Improved obesity education at the medical school level will serve to create a generation of healthcare professionals that are more confident and competent in addressing the obesity epidemic.

References


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Figure 5: Team-based learning session on obesity pathogenesis held on November 17, 2021

Figure 6: Example of a curriculum audit (excerpt from Block 3 audit)