

Development and Implementation of Childhood Obesity Module for Medical Undergraduate Using ADDIE Model: A Mixed Methods Design

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Background: Childhood obesity among children has surged to epidemic levels, with a significant portion of India's population affected by morbid obesity in the 21st century. A concise module for primary care physicians to manage a case of childhood obesity in the Indian scenario as a physician of first contact at the community level is unavailable. The use of the ADDIE model for creating modules in medical education is not widespread in India and is relatively uncommon globally. Using the ADDIE model to develop a module in the pediatrics curriculum is relatively uncommon.

Aim: Impact of modular teaching among 3rd prof part II students in Pediatrics

Objective: The primary objective was to develop and implement a childhood obesity module for 3rd prof part II MBBS students. The secondary objective was to evaluate the module's outcome.

Materials and methods: The study was conducted in department of pediatrics at the All India Institute of Medical Sciences (AIIMS), Deoghar, an institute of national importance (INI) in India.

The ADDIE instructional design model was used for creating the structured childhood obesity module. Utilizing Kirkpatrick's framework for backward evaluation, we analyzed the module's effectiveness by considering students' feedback (Level 1) and their end-of-course scores (Level 2) in both cognitive and psychomotor domain.

Results: The childhood obesity module was developed and which was well received by students. The students found that the module could assist them in managing obese children in real-life situations and were highly satisfied with the module. There was a significant improvement in the mean scores of MCQ and OSCE test with effect size 4.7 (4.37 – 5.03) and 2.6 (2.29 – 2.91) respectively.

Conclusion: The ADDIE model is highly effective for developing modules in medical education specifically in pediatrics. This module was well received by the students and greatly improved their knowledge and skills. Modular teaching is an excellent approach for developing real-life management skills among medical students. It can be used to create modules for other topics in pediatrics and can also be applied to develop modules in other subjects.

Keywords: ADDIE model, Childhood Obesity, Feedback, Kirkpatrick's evaluation, Undergraduate medical students

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