



# mHEALTH CURRICULUM: TRAINING IN THE USE OF MEDICAL & PATIENT MOBILE APPS FOR WEIGHT MANAGEMENT

UTSW

UNIVERSITY OF TEXAS SOUTHWESTERN



Dallas, TX

Educators from the University of Texas Southwestern Medical Center developed an mHealth curriculum to prepare physician assistant and clinical nutrition students to deliver weight management counseling in primary care settings. The expanded Life Habits curriculum could be integrated at any point in prelicensure physician assistant training or adapted for use in other health professional training programs.

## SCENARIO

Mobile health technology (mHealth) is increasingly used to support lifestyle recommendations for weight management through the measurement and tracking of nutrition, physical activity, blood glucose, and sleep. However, few health professionals receive training in how to critically evaluate or deliver effective patient education on the use of mHealth for obesity. To address this training gap, educators from UT Southwestern incorporated weight management mHealth training into the interprofessional nutrition curriculum for physician assistant (PA) and clinical nutrition (CN) students.

### Educational Objectives

After completing the Smart-Life Habits curriculum, learners should be able to:

- ▶ Recall (i) BMI cut point which defines obesity and (ii) recommended initial 6-month weight loss
- ▶ Recall what clinically-meaningful health improvements are associated with 3-5% sustained weight loss
- ▶ Recall the three components of a comprehensive lifestyle program for weight loss
- ▶ Assess readiness of individual patients to make lifestyle changes to achieve weight loss
- ▶ Prescribe and thoroughly explain diets for weight loss (tailored for individual activity level, goals, comorbidities)
- ▶ Know when to refer patients for a nutrition consult and be knowledgeable about other community-based resources
- ▶ Evaluate mobile apps that reflect evidence-based information using the smartphone application appraisal tool (SAAT)
- ▶ Educate patients on how to download and use mHealth for weight management
- ▶ Educate patients on how to relay mHealth app information to healthcare provider

## About the Educators



### UT Southwestern School of Health Professions

Department of Physician Assistant Studies

Department of Clinical Nutrition



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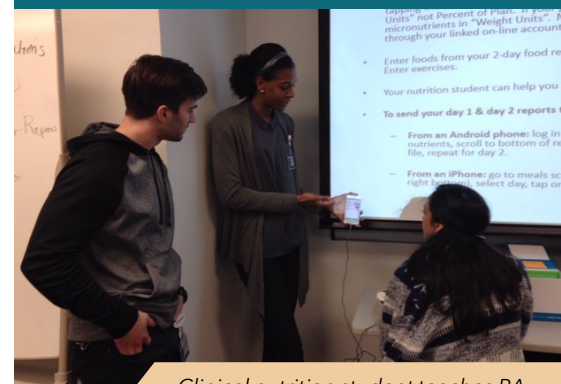
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### KEY COMPETENCIES:

Strategies for Patient Care  
Integration of Community Care



Clinical nutrition student teaches PA students how to use phone app



# CURRICULUM

The *Smart-Life Habits* curriculum was developed to improve physician assistant and clinical nutrition students' abilities to use mobile medical applications and smartphone apps to provide lifestyle counseling for weight loss. The mHealth training was integrated as an expansion of UTSW's existing *Life Habits* curriculum, summarized in part below.

## Experiential Activities in the *Smart-Life Habits* Curriculum



**Nutrition Station Health Fair:** takes place during the *Smart-Life Habits* class and allows students to practice applying skills in obesity screening and patient education pertaining to topics that directly affect weight, e.g., grocery shopping, cooking, eating out, snacking, and MyPlate portions



**Heart-Healthy Lunch:** students are provided a heart-healthy meal that introduces them to the 2013 AHA/ACC Guidelines on Lifestyle Management to Reduce Cardiovascular Risk



**Nutrient Analysis:** PA students complete a two-day food record and receive individualized dietary recommendations from CN students, demonstrating how patients can be educated to make dietary improvements



**mHealth Training:** students are instructed on the critical appraisal of mobile apps, the use of two apps (MyNetDiary, Withings Health Mate), and the delivery of effective patient education regarding the use of mobile app technology

### EX: Obesity-Focused mHealth OSCE

*You are about see to Bob Nob for a follow-up appointment. Your patient's weight is up.*

Use your phone to demonstrate how to download and use the mobile app MyNetDiary

- Locate app store, search *MyNetDiary*, pretend to install
- Open app, select a meal, enter a food, and save
- Have the patient select a meal, enter food, and save 2-3 foods

## OUTCOMES

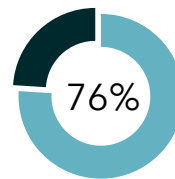
To evaluate the efficacy of the *Smart-Life Habits* curriculum, UT Southwestern faculty conducted a quasi-experimental study with PA students (n = 173) who completed the training from 2015 to 2018.

Methods of assessment:

- ✓ Pre/post-didactic curriculum surveys to evaluate student confidence in nutrition education and counseling skills
- ✓ Objectively-structured clinical examinations (OSCEs) to evaluate skills in counseling and mHealth communication

**+2 unit increase**

in median student confidence regarding their ability to thoroughly explain eating patterns for weight loss tailored to the patient's activity level, comorbidities, and goals (*increased from pretest score of 2 "little confidence" to posttest score of 4 "confident"*)



of trainees used the teach-back method by asking the standardized patient (SP) to teach back to them how to enter food in the app, and 34% asked the SP to verbalize benefits of using the app at close of the encounter.



“With mHealth being increasingly utilized to support lifestyle recommendations, health professions education should provide the knowledge and skills to appraise and recommend mobile apps as part of lifestyle recommendations.

– Susan Rodder, MS, RDN, LD  
Associate Professor



Additional outcomes data and information about this curriculum are available from:  
<http://www.educationforhealth.net/text.asp?2018/31/2/95/246752>