

Health not Cosmetics

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Case 1

ME is a 32 year old male patient who comes to your office for the first time for a work physical. He has no significant past medical history, but he comes to you today stating that it is harder for him to go up the stairs and to keep up with his three young boys. In preparation for his examination with you today, the nurse has asked him to fill out a form with a few questions about his lifestyle. He does not smoke, drink, or use drugs, and has sedentary lifestyle. He states that he does not have any time to exercise and has not attempted dieting.

Case 1 (continued)

His family history is positive for both hypertension, DM2 and prostate problems.

Physical Exam: height: 66 inches, weight 224 lbs, B/P 120/80, pulse 90, otherwise unremarkable.

How can we best help ME?

What other information would you find useful?



What is Obesity?

- In 1998, the NHLBI established definitive criteria for a diagnosis of obesity based on Body Mass Index (BMI):

$$\text{BMI} = \text{weight (kg)} / \text{height (m}^2\text{)}$$

Classification	BMI (kg/m ²)
Underweight	<18.5
Normal Weight	18.5-24.9
Overweight	25-29.9
Obese	≥30

What Causes Obesity?

- Genetics
- Social factors
 - **Socioeconomic class: Scottish Health Survey (1995) found an inverse correlation between obesity and social class, mostly in women.**
- Endocrine/Metabolic factors
- Psychological factors
- Developmental factors
- Lack of Physical Activity
- Brain damage

Epidemiology of Obesity

- Prevalence in US Adults is 20.9% (2001¹)
- This was an increase of 5.6% since 2000 when obesity was at 19.8% prevalence
- Continuous rise over past 20 years
- The CDC estimates **21.4 million** obese men and **22.9 million** obese women, for a total of **44.3 million** obese US adults!

1. Ali H. Mokdad, PhD; Earl S. Ford, MD, MPH; Barbara A. Bowman, PhD; William H. Dietz, MD, PhD; Frank Rancicor, MD, MPH; Virginia S. Bales, MPH; James S. Marks, MD, MPH Prevalence of Obesity, Diabetes, and Obesity-Related Health Risk Factors, 2001. JAMA. 2003;289:76-79

Obesity in New York City

- In January 2003, NYC DOH released report that Obesity and Diabetes are epidemic especially in the South Bronx
- New York City leads the nation in Obesity and Diabetes Prevalence
- Since 1994, Diabetes has doubled in New York City
 - **Bronx - 13.5% have Diabetes**
 - **Brooklyn - 9.0%**
 - **Manhattan - 6.0%**
 - **Queens - 7.0%**
 - **Staten Island - 4.6%**

Obesity in the Bronx

- NYC DOH (2003) Report showed direct link between obesity in NYC and diabetes.
- At more than 13%, the rate of newly diagnosed cases in the South Bronx is 50% higher than the city average.
- Some studies¹ have shown that up to 70% of the residents in the Bronx have BMI's >25. This does not include the South Bronx.
- There are no studies as to which borough has the largest obese population.

1. (<http://www.nyc.gov/html/doh/pdf/survey/survey-2002diabetes.pdf>)

Methods of determining obesity

- BMI of ≥ 30 BMI = (Weight in kilograms) / (Height in meters)²
- Waist circumference ≥ 35 " for women; 40" for men
- Triceps skin fold $\geq 95^{\text{th}}$ percentile (for gender and age; see reference*)
- Upper-Arm muscle circumference $\geq 95^{\text{th}}$ percentile (for gender and age; see reference*)

*From Bloch AS and Shils ME. Appendix Contents. In Shils ME, Olson JA, Shike M, Ross CA. Eds. *Modern Nutrition in Health and Disease*. Baltimore Md: Lippincott Williams & Wilkins. 1999: pp A98-A99; A102-A104.

The Obesity Package

- Type II Diabetes Mellitus
- Hypertension
- Hyperlipidemia
- Coronary artery disease
- Stroke
- Gallbladder disease
- Osteoarthritis
- Sleep apnea
- Respiratory problems
- Endometrial, breast, prostate, and colon cancers

What can we do?

- As clinicians, we need to develop a “toolbox” of weapons to fight obesity
- Need to find an approach that can overcome barriers perceived or real to making a lifestyle change
- Must be both culturally sensitive and educationally appropriate
- Must be consistent & uniform message

Barriers to Exercise

- Time
- Cost
- Cultural acceptability
- Misperceptions
- Space
- Desire
- Effect on loved ones

Barriers to Healthy Eating

- Time
- Cost
- Cultural acceptability
- Misperceptions
- Effect on loved ones
- Desire

Lifestyle Modification

- Any program needs to stress changes as life long for the results to be life long
- Diets are “nice” but they imply an end to the change
- Exercise needs to be the major component
- Patients must feel that they are able to do it

L.E.A.R.N.

- Lifestyle
- Exercise
- Attitudes
- Relationships
- Nutrition
- Developed by Kelly Brownwell, Ph.D. as an individual program for lifestyle change.

L.E.A.R.N.

Advantages

- Patients can use manual individually
- Has excellent strategies
- Is the premier authority on lifestyle modification

Disadvantages

- Only available in English
- Expensive
- Written for a different population
- Not culturally sensitive

Intervention

- Weekly
- Involves entire clinic
- Designed to be a resource for patients of all providers
- Free of charge
- Given in conjunction with Family Medicine Clerkship
- Medical students run the program

The Class

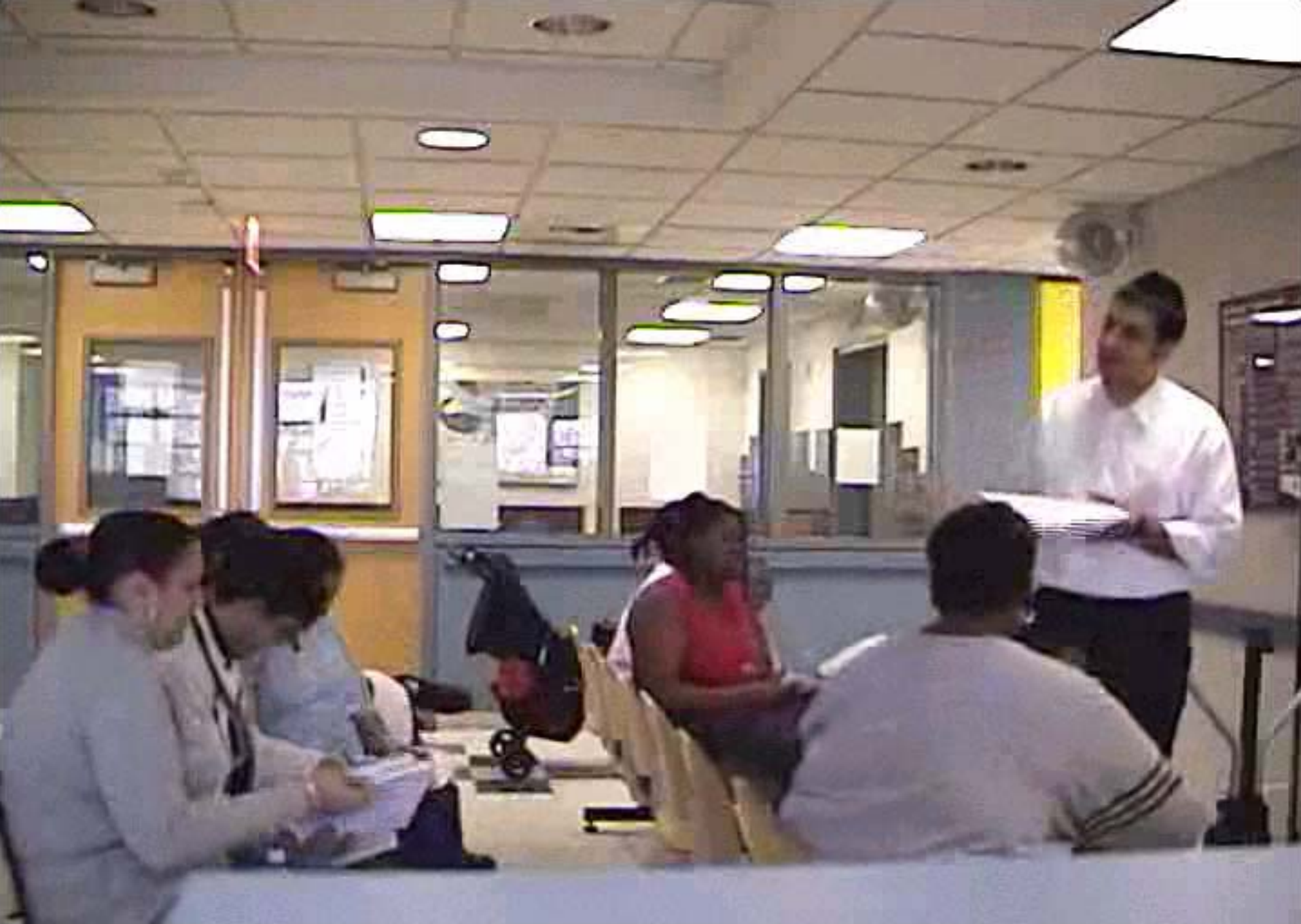
Healthy Living and Weight Loss
Tuesdays at 1:30
All are invited

Exercise

Support

Nutrition

SHARKS



Student Involvement

- All logistics are handled by students
- Use internet, LEARN manual and medical school resources to teach the class
- Production of community based handouts
- Learn the power of example (provider)
- 4th year student can do more focused projects

Working with patients

- In our 15 minute visits, impossible to address all issues
- Need to determine if patient wants to change
- Refer to healthy living class
- If unable to attend, give patient some handouts
- Talk to patients about exercise

Pedometers



Pedometers

- Patient can wear pedometer, incorporate exercise as part of daily activities
- 10,000 steps a day
- Inexpensive
- Easy motivator to increase activity
- Drinking more water makes more steps
- Adding 2000 steps to your baseline produces modest weight loss

Barriers to Exercise

- Pedometer cost \$9-\$10
- Can be used all day every day
- May increase fitness consciousness
- Allows patients flexibility of not having to set apart 30 minutes a day
- Makes cultural acceptability non important
- Patients can exercise without perceived increase in hunger
- Can easily be done with spouse and children

Overcoming Healthy Eating Barriers

- Rice and beans is not health food
- Preparation of food both time and cost matter
- Patients need to learn a new way to eat
- Portion control is essential
- Family plays important role, as dinner is family time
- Education is key—too many misconceptions

An objective look

Advantages of Class

- Allows for medical student and patient education
- Gives provider and patients time to negotiate plan of attack
- Has helped me and others maintain or achieve weight loss

Disadvantages

- Requires resources of clinic (nurses, staff, providers)
- Too dependent on Dr. Rodriguez
- Requires constant recruitment and incentives
- Does not work for everyone

Evaluation

- Best practices approach (involves entire clinic)
- Review of literature
- Find exemplars of good obesity treatment (may be patients or staff)
- Identify best methods and then put them together
- Ask correct questions and evaluate

Best Practices Approach

- Identification (providers & patients who are ready)
- Engagement (motivation to be involved)
- Treatment (intervention)
- Maintenance (relapse prevention)

Future directions

- Height & exercise as a vital sign (ready BMI calculation)
- Card surveys of patients to determine who is ready
- Search for exemplars in the HHC network
- Smoking cessation attitude (When are you going to quit, talking to everyone)
- Grant support
- Medical student supported literature review
- Determine if personal history of lifestyle change is important

Future Directions

- Weight
- Activity
- Variety
- Excess
- Found at www.aecom.yu.edu/nutrition
- Future inservice for staff as clinic intervention

Conclusion

- Many causes require many strategies
- Need to find out where our patients are and use our toolbox to bring them closer to where they need to be
- Example is a huge motivating factor
- Patients are willing to accept drastic changes little by little
- All of your patients can come to the class

Aetna Foundation Grant

- Reach 7500 individuals via obesity van, workshops and literature
- Reach 750 obese individuals through workshops, classes, park activities and peer support.
- Achieve sustained weight loss in 200 obese individuals
- Train 15 providers on cultural attitudes and lifestyle choices

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