Weight Management Curriculum

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Obesity

- Severity of the problem.
- More than 71% of US adults are overweight and obese.
- Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer, some of the leading causes of preventable death.
- The estimated annual medical cost of obesity in the U.S. was $147/year billion in 2008 U.S.
- The medical costs for people who have obesity were $1,429/person higher than those of normal weight.
Obesity Stigma and BIAS

- Verbal stigma: such as ridicule, teasing, insults, stereotypes, derogatory names, or pejorative language.
- Physical stigma: such as touching, grabbing, or other aggressive behaviors.
- Social bias: chairs or seats in public venues which do not accommodate obese persons, or stores which do not carry clothing in large sizes.
- Discrimination: employment discrimination where an obese employee is denied a position or promotion due to his or her appearance, despite being appropriately qualified.
• Obese women are at increased risk of developing and dying from cancer, but are less likely than non-obese women to receive cancer screening examinations.
• In a survey of 33 obese women patient common responses

• I just don’t think that speculum is sized right, and maybe they think because you’re a big person that, you know, vaginally they use the biggest spec-I don’t know what it is, but I just don’t think they choose right.

• “think they do-what would be the expression-put you in a box. “Oh, you’re just lazy or you just don’t care. You’re not doing what you need to do, so you’re not going to do what I tell you to do anyway.”

• I always have to ask for a bigger gown, and that’s embarrassing. Especially when somebody else is in the stall. They always forget to put one or two big gowns
Healthcare and Obesity Barrier

• The Implicit Associations Test (IAT) and a self-report questionnaire assessing explicit attitudes, personal experiences with obesity, and demographic characteristics was administered to clinicians and researchers attending the opening session of an international obesity conference (N = 389)

• Health professionals exhibited a significant pro-thin, anti-fat implicit bias on the IAT. In addition, the subjects significantly endorsed the implicit stereotypes of lazy, stupid, and worthless using the IAT

Social Manifestations in Patients

– Common symptoms patients present with
Obesity and Socioeconomic Status

- Among non-Hispanic black and Mexican-American men, those with higher incomes are more likely to have obesity than those with low income.
- There is no significant relationship between obesity and education among men.
- Higher income women are less likely to have obesity than low-income women.
- Among women, however, there is a trend—those with college degrees are less likely to have obesity compared with less educated women.

Obesity in Adults: Screening and Management

- The USPSTF recommends screening all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m² or higher to intensive, multicomponent behavioral interventions. (Grade B)
CDC –Diabetes Prevention Lifestyle Change Program

- This lifestyle change program is not a fad diet or an exercise class. And it's not a quick fix. *It's a year-long program focused on long-term changes and lasting results.*
- A year might sound like a long commitment, but learning new habits, gaining new skills, and building confidence takes time. As you begin to eat better and become more active, you’ll notice changes in how you feel, and maybe even in how you look.
- Research shows that people with prediabetes who take part in a structured lifestyle change program can cut their risk of developing type 2 diabetes by 58% (71% for people over 60 years old).
- Goal of program is to help people lose 5% to 7% of their body weight through healthier eating and 150 minutes of physical activity a week.

Education about weight Management

- While widespread expectations that primary care physicians counsel their patients prevail, few residency programs provide training to support such counselling.
Our Data

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<th>No BMI in chart</th>
<th>underweight</th>
<th>Normal weight</th>
<th>overweight</th>
<th>obese</th>
<th>Morbid obesity</th>
<th>Grand Total</th>
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<tr>
<td>Normal BMI</td>
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<td></td>
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<td></td>
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<td>No treatment plan</td>
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<td>131</td>
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<td>4132</td>
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<tr>
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<td>1743</td>
<td>2332</td>
<td>1899</td>
<td>2486</td>
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</tbody>
</table>

• What we learned
• 45% of our morbidly obese patients had no documented treatment plan.
• 59% of patients of all obese patient had no documented plan.
• Survey was given to resident to assess knowledge about obesity medicine.

Poll Question #1

The Body Mass Index (BMI) is a useful clinical tool for diagnosing obesity. At what BMI level can the diagnosis of obesity be made?

a) 30  
b) 35  
c) 40  
d) Both a and b
Poll Question #2

What is considered as obesity in children?

a) BMI between 75-85 percentiles
b) BMI between 85-94 percentiles
c) BMI above 95 percentiles

Poll Question #3

Metabolism of 150 g carbohydrate, 20 g fat, and 20 g protein yields approximately how many kilocalories?

a) 500
b) 600
c) 860
d) 1000
Poll Question #4

What dietary factor is most responsible for raising serum cholesterol levels?

a) Dietary cholesterol
b) Unsaturated fat
c) Saturated fat
d) Simple sugars

Poll Question #5

Which of the following medication does not cause weight gain?

a) Gabapentin
b) Valproate
c) Haloperidol
d) Olanzapine
Poll Question #6
Which cut of red meat is leanest (calories/oz) option?
  a) Hamburger
  b) Ribeye
  c) Filet mignon
  d) Prime rib

Poll Question #7
How many grams of carbohydrate are in “one carbohydrate serving or one carb choice”?
  a) 10
  b) 15
  c) 30
  d) 45
Poll Question #8

Which of the following has lowest glycemic index?

a) Cornflakes
b) Banana
c) Macaroni
d) Milk

Poll Question #9

How many carbs per meal would you recommend for a female who has type 2 diabetes and wants to lose weight?

a) 20 grams or less
b) 30 grams
c) 45 grams
d) 60 grams
Poll Question #10

How many servings from dairy products are recommended daily for healthy adults?

a) No minimum servings dairy products are recommended
b) One
c) Two
d) Three

Measures to improve knowledge

- Regular quarterly didactic sessions about treatment of obesity.
- Residents routinely rotate with our dietician.
- ABFM performance improvement on BMI based treatment for 3rd years resident.
- The improvement project included didactic session about documentation and importance of nutrition and exercise counselling.
Weight Management Clinic

• Started weight management clinic for FQHC patients. It can be used as cohort sample. Success and failure can be applied to entire clinic.
• After initial triage for appropriateness (motivation, drug abuse and medical complication)
• Patients are seen weekly initially by dietician for 1\textsuperscript{st} month and then biweekly for 5 months. After 6 months they see dietician monthly.
• They see physician monthly for 1\textsuperscript{st} 6 months and then every 6-8 weeks .
• If they achieve 6.6 lbs weight loss then they can continue for 6 more months

Overall Management Goals

Adult patient with overweight or obesity

→ Improve patient health
→ Improve quality of life
→ Improve body weight and composition
Treatment of Adult Patients with Overweight or Obesity

Medical Management and Coordination

- Nutrition
- Physical Activity
- Psychosocial
- Pharmacotherapy
- Invasive procedures

Management of psychological and Behavioral conditions

- Mental stress
- Depression
- Anxiety
- Post-traumatic stress syndrome
- Binge-eating disorder
- Night-eating disorder
- Eating disorders not otherwise specified
Energy consumption intended to cause negative calorie balance and loss of fat mass

Low-calorie diets: 1,200-1,800 kcal/day

Restricted fat diet
- Low-fat diet: <30% fat calories
- Very low-fat diet: <10% fat calories

Restricted carbohydrate diet
- Low-glycemic diet
- Low carbohydrate diet: 50-150 grams/day
- Very low carbohydrate diet: <50 grams/day (with or without nutritional ketosis)

Very low-calorie diets: Less than 800 kcal/day

Physician supervision recommended

Recommended for shorter durations

Full meal-replacement programs

Medications
Why Do People Regain Body Weight?

Physiologic Priority Imbalance

- Neuro-biologic processes strongly resist starvation
- Neuro-biologic processes weakly resist over-nutrition
- Analogous example:
  - Hypoglycemia can be profoundly symptomatic and may promote physiologic and behavioral priority for immediate caloric intake
  - Hyperglycemia is often asymptomatic and rarely promotes physiologic and behavioral priority for immediate reduced caloric intake

Neurobiology

- Weight loss may decrease neuroendocrine factors, which in turn may increase appetite
  - Leptin
  - Insulin
  - Cholecystokinin
  - Peptide YY
- Weight loss may increase ghrelin, which in turn may increase appetite
- Poor restorative sleep

Resident Prospective
Poll Question:

Enter your email address to be included in any follow-up communication from the presenter(s).
Please…

Complete the session evaluation.

Thank you.