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Case Study

Patient: **Yusuf Khoury**

Age: 57

Sex: Male

Past Medical Hx: Type 2 diabetes, moderate to severe depression, h/o hypertension

**Immunizations:**

* Influenza- yearly
* T-dap- if he did not get one in the last 10 years

**Screening Tests:**

* Alcohol
* Depression- Mr. Khoury has moderate to severe depression that is somewhat controlled by his medication Paroxetine. Mental health specialist referral needed.
* Hypertension- Mr. Khoury’s BP was 142/86. His BP has been under 140/90 in the past with his current medication Enalopril. His BP needs to be monitored. If still elevated in the next follow up visit, may need to consider changing his prescription.
* Obesity- His BMI is 26.5- brief intervention needed.
* Tobacco use and cessation
* HIV
* Colorectal cancer- Mr. Khoury is over age 50.
* Prostate- I would inform Mr. Khoury about the benefits and harms of prostate cancer screening since he is over 55 but under 70 and especially since his father has a h/o prostate cancer. I would allow him to make his decision afterwards.
* Lipid disorder- Mr. Khoury is over 35 and has increased risk factors for CHD and CVD. His risk factors: male, limited physical activity, poor diet, hypertension, diabetes, obesity.
* Abnormal glucose/diabetes- Fasting blood glucose is 160 and Hgb A1C is 9.0, both are elevated. Considering to start him on insulin.
* Hep C virus infection- Mr. Khoury is age 57 and therefore born between the years 1945- 1965. There is likely a moderate benefit for screening for Hep C.

**Health Promotion/Disease Prevention Concerns:**

1. **Injury Prevention**

* Prescription Drug Overdose prevention
* Violence prevention/ Suicide prevention
* Older Adult Fall prevention

1. **Diet**

Mr. Khoury presents with a few dietary issues. His breakfast usually consists of a buttered roll and a large coffee with half and half and equal. The buttered he consumes in the morning has a significant amount of fat, carbohydrates and sodium. Since he “sometimes” buys fruit and lacks vegetables in his diet, he is missing out on dietary fiber, essential vitamins and minerals. His coffee is large and contains more fat and sugar since he uses half and half for milk and equal for sugar. The bag of potatoes chips he consumes at lunch also may contain a lot of fat and sodium. Lastly, he snacks on cookies and sweets, which contains a lot of carbohydrates and added sugars, contributing to his overall carb intake tremendously.

Mr. Khoury’s overall diet is high in saturated fat, trans fat, cholesterol, carbohydrates and sodium while low in fruits, vegetables, whole grains, dietary fiber, healthy vitamins and minerals. I would recommend modifying his breakfast by advising him to use non-fat dairy milk products and not adding any sugar to his coffee. Instead of eating the butter roll, he can consume whole grain organic cereals or oatmeal for breakfast. For lunch he can consume fruits and vegetables, fish, salads, grilled salmon, chicken breast, fish, broth based soups, legumes, and low fat or fat-free milk products. These foods have a lot of water and fiber in them and therefore will fill him up with fewer calories (1). He can reduce his carb and fat intake from the sandwich by just eating one slice of whole wheat bread and limiting any condiments he might use like mayonnaise. To practice harm reduction, he can choose healthier items when ordering out for lunch. He should ask about the nutrient content before purchasing any food. These changes should also be implemented for his dinner as well.

Based of Mr. Khoury’s past medical history of diabetes, depression, elevated blood pressure and overweight BMI, the plan to modify his diet will consist of greatly avoiding/reducing his intake of trans fats and saturated fats while reducing his intake of sodium and carbohydrates. He should instead consume more fruits, vegetables, and whole grains. He should consume healthy fats like cold-water fish and drink more water. His daily calorie intake will be between 1800-2000 calories per day with 45 percent of these calories to be from carbs(2). This can be done if he uses the recommended my plate proportions as a guidance (3). In so, half of his plate will be fruit and vegetables, a quarter of his plate will be whole grains and the other twenty- five percent will be healthy proteins. The proteins will be mostly fish and lean chicken. I’m advising him to not eat any of the cookies and sweets at work. I’m recommending that if he gets hungry to consume healthier snack options like fruits, nuts or yogurt. He or his wife can meal prep on the weekends when he is off from work so that he can have prepared healthy foods to take to work. He should also look at the back of food labels to see the nutrient content and monitor his food consumption with a food diary.

1. **Excersize**

Mr. Khoury appears to have a very sedentary lifestyle. He has a desk job where he sits for long periods at a time and he admits to getting no exercise. Because he has a sedentary lifestyle, I would recommend that he start with a few minutes of physical activity per day and increase slowly to 30 minutes per day (4). The easiest change would be for him to get off 1-2 stops before his actual stop for work and walk. He can also use the steps in his apartment instead of the elevator. On the weekends, he could also walk his dog using his right hand where he does not have pain or he can have his wife walk the dog and he walk alongside her. In 1-2 months, I would recommend that he gradually increase his activity level and aim to achieve 150 minutes per week of walking/aerobic activity as well as participate in muscle strengthening activity 2 times a week (4). Since he says that he is “allergic to exercise”, this can be done if he considers other types of activities like swimming or bike riding as well. I would have to ask him about his hobbies/interests to see what can work. To lower his BMI, he should aim for losing 9-15% of his current weight over 52-72 weeks (5).

1. **Harm Reduction**

Switch to decaffeinated coffee- caffeinated coffee could be causing his elevated blood pressure reading(6). Will advise him to switch to decaf coffee as an alternative.

Diet- I will advise Mr. Khoury to purchase and consume the healthier options when he chooses to orders food from restaurants he likes.

**Brief Intervention**

I would conduct a motivational interview style intervention with Mr. Khoury to address his obesity and motivate him to lose weight. I will keep the OARS model in mind when interviewing him. OARS stands for open ended questions, affirmations, reflections and summarize (7). I would ask open- ended questions and make affirmations to understand how strong he feels about his potential to lose weight and motivate him to pursue weight loss. I would allow him to reflect on his views about weight loss and summarize his responses so that he understands that I am here to help him in the best way I can based on his health and life. During the intervention, I would use the 5 A’s of obesity management as the primary guide to conduct the interview. The 5 A’s stand for Ask, Assess, Advise, Agree and Arrange/Assist (5).

**Ask**: I would first start by asking Mr. Khoury permission to discuss his weight.

Q: Mr. Khoury, can we discuss your weight and the affects it may be having on your health?

**Assess:** I would assess his heath status and obesity indicators. I would also see if I could determine what factors in his life are attributing to his current weight. Mr. Khoury has a waist circumference of 43 and a BMI of 26.5. He is considered overweight on the BMI scale. He also has elevated fasting blood glucose of 160 and HgbA1C of 9.0.

Q: Can you tell me about your past weight gain or weight loss.

Q: Can you discuss your daily diet and physical activity with me?

Q: Can you tell me what factors in your life do you think are influencing your weight?

Q: How do you feel about your current weight?

Q: What medical conditions do you have?

**Advise:** Here is where I would first affirm and commend Mr. Khoury for monitoring his blood glucose and blood pressure regularly. I would then advise Mr Khoury of the health risks he has due to his obesity. I would start by advising him that his current diet is contributing to his obesity and is also making it harder for him to control his blood glucose. I would explain to him that his fasting blood glucose of 160 and his Hgb A1C of 9.0 were both elevated. I would explain that his HgbA1C test measures his average blood glucose over the past 2-3 months and is directly related to his diet within this time (8). Based off these test results, I would let him know that I am considering starting him on insulin. I would let him know the effects obesity and diabetes can have on his health and that these factors are also increasing his risk of developing other chronic diseases like CHF and CVD (9). I would also let him know that his BP was elevated today at 142/86 compared to his past readings being lower than 140/90. I would emphasize with him the benefits of even a small decrease in his weight. I would let him know that weight loss will decrease his blood glucose, blood pressure and his depression levels (4).

Q: What do you know about the effects your current weight and obesity is having on your overall health and risks for further health problems?

Q: What do you understand about the benefits that even a small amount of weight loss can have on your health and depression?

Q: What do you understand about your blood sugar levels in relation to your health?

Q: What do you know about the medication Insulin and how do you feel about starting it now?

**Agree:** During this part of the intervention, I would attempt to establish an agreement with Mr Khoury on how we would go about his weight loss as well as the expectations and targets for weight loss. I would attempt to explore any hobbies or interests he may have that he can engage more in for physical activity and exercise. I would try to explore any areas of ambivalence with regards to changing his diet and increasing his physical activity and weight loss. We would come to an agreement on a plan and when he should begin weight loss or if he even feels like this is a good time for him to start losing weight. I would use motivational interviewing to allow him to see the importance of starting the weight loss plan. I would in this time attempt to establish an agrrement with him regarding starting Insulin. Since he objects, I will reinforce lifestyle changes as discussed and reassess within a month.

Q: How much weight would you like to lose?

Q: How do you feel about pursing a weight loss goal at this current time?

Q: I know you are not too fond of exercising, but what are some other hobbies/ forms of physical activity that you like to participate in?

Q: How do you feel about this current plan regarding the diet change and increasing your physical activity?

Arrange/Assist: I would explore and address any barriers Mr. Khoury has to face to lose weight. I would use the reflection aspect of OARS especially here to allow him to reflect on any barriers he may perceive to losing weight. Some barriers for him could be his depression and lack of physical activity. I would provide resources for him like support groups for weight loss and mental health specialists. I would arrange regular follow up appointments with Mr. Khoury so that I can assess his progress.

Q: What barriers do you think are affecting your weight loss?

Q: How do you feel about how you are managing your mood and depression in relation to the plan?

Q: Would you like me to refer you to a support group for weight loss or a nutritionist?

Q: Would you like some information about obesity, diabetes and depression?

Q: Would you like me to refer you to a mental health specialist?

Towards the end of the intervention, I will summarize what we have discussed and also use the teach back method to ensure he understands everything regarding the plan for his weight loss.

**Which issues should be addressed first?**

After addressing his chief complaint reassuring him that is it not a heart attack, I would first address his elevated blood glucose screening tests, letting him know what his fasting blood glucose and hemoglobin A1C test mean. I would then address his elevated blood pressure reading of 142/86 since it is above 140/90. I would then have the brief intervention regarding his obesity incorporating the health promotion and disease prevention concerns. Particularly, I would counsel him about how his obesity, diet and lack of physical activity are contributing to his elevated blood glucose levels and elevated blood pressure reading. I would then address his depression and refer him to a mental health specialist for follow up and management. I would lastly address his need for immunizations last.

**Sources:**

**1) East more Weigh less; How to manage your weight without being hungry** [**https://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/Energy\_Density.pdf**](https://www.cdc.gov/nccdphp/dnpa/nutrition/pdf/Energy_Density.pdf)

(2) <https://www.everydayhealth.com/hs/managing-type-2-diabetes/best-and-worst-foods/>

(3) <https://www.choosemyplate.gov/MyPlate>

(4) Week 5- writing an excerize rx slides

**(5) Week 7- Obesity slides**

(6) <https://www.psychologytoday.com/us/blog/your-brain-food/201105/why-decaf-coffee-is-just-healthy>

(7) Week 4- Motivational Interviewing Slides

**(8)** [**https://www.webmd.com/diabetes/guide/glycated-hemoglobin-test-hba1c**](https://www.webmd.com/diabetes/guide/glycated-hemoglobin-test-hba1c)

**(9) Week 6- Preventing Cardiovascular Diseases slides**

**(10) https://www.cdc.gov/homeandrecreationalsafety/index.html**