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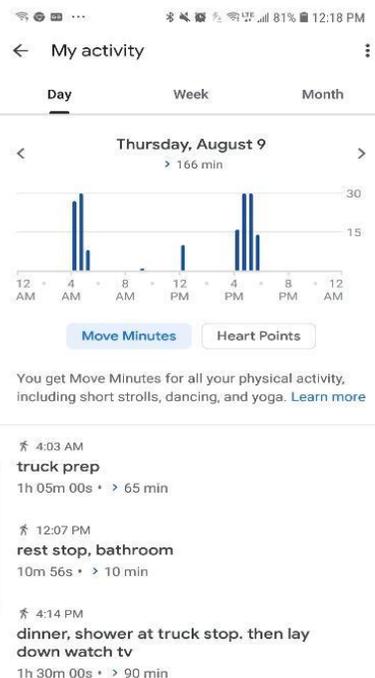
4/30/2020

Case Study: Cardiorespiratory & Musculoskeletal Exercise Intervention

Objective:

Age: 51
 Gender: Male
 Race: African American
 Height: 5ft 10in (1.78m)
 Weight: 210 lb (95.3 kg)
 Waist Circumference: 42 inches
 Resting HR: 71 bpm
 BP: 135/85
 Amount of cigarettes per day: 1 pack per day (20 cigarettes per day)
 Total cholesterol: 221; LDL 140; HDL 40; Triglycerides 235
 Blood glucose (fasting) 189

6 minute walk test



Assessment:

1. With the data provided above it has been estimated that the patient has a high risk of having type 2 diabetes. Also, the patient has a high probability of having CLRD/COPD.
2. The factors that cause the risk of diabetes and CLRD/COPD are the following:
 - His blood pressure is at the risk of being stage 1
 - Age- The risk of high blood pressure increases as you age
 - Race, which in this study the patient is an African American male
 - Family history- of premature atherosclerosis, diabetes, and peripheral artery disease
 - Being overweight or obese- The patient weighs 210 pounds
 - Not being physically active- The patient used to be active when he was young
 - Smoking- the patient has been smoking since he was 16 years old
 - Not having a food balance- which in this case the patient mostly eats fast food.

3. Based on waist circumference what is your assumption about this person's fat distribution (location on the body) and type of fat? How does this impact this person's health?
 - Usually the fat in the belly or visceral cavity is considered more harmful than fat located elsewhere and is closely linked to many diseases associated with obesity.
 - Also, the body fat is mostly located in the abdomen, legs, and chest.
 - Based on data collected, it has been stated that physical activity interventions may help to decrease visceral fat and improve cardiometabolic risk markers, even without a significant decrease in body weight.
 - Also, based on *Body Composition Methods: Comparisons and Interpretation*, the incidence of obesity in the United States and other developed countries is epidemic. Because the prevalence of comorbidities to obesity, such as type 2 diabetes, has also increased, it is clear there is a great need to monitor and treat obesity and its comorbidities. Body composition assessments vary in precision and in the target tissue of interest. The most common assessments are anthropometric and include weight, stature, abdominal circumference, and skinfold measurements. This impacts this person's health because they now have a high risk of having heart disease, stroke, diabetes, cancer, and depression.
4. What is your assessment of this person's functional ability based on the 6-minute walk test?
 - Based on the person's functional ability based on the 6-minute walk test, the person had a hard time continuing to walk for the whole 6 minutes. There is also a probability that this person may need to take some breaks in between the 6 minutes in order to catch its breath.
5. What is your assessment of the activity levels of this person?
 - The patient would be considered as sedentary, which means he spends most of his day sits/inactive for most of the day.
6. Using the socioecological model, what factors need to be considered in trying to change behavior/increase activity levels?

The factors for a person to change their behavior regarding increasing activity level are the following:

 - Educating the person why it's important to stay active.
 - Also informing families and friends in order to remind the patient to stay active
 - Getting more involved for the patient to be active
 - Going to the park and playing old sports that the individual ones played when he was young.
7. What information do you want to further collect from this individual? (e.g. what other information would help you in planning a program for this person--what questions do you need to ask?)
 - How ready do you feel to change your eating patterns and/or lifestyle behaviors?
 - How is your current weight affecting your life right now?
 - What kinds of things have you done in the past to change your eating?
 - What strategies have worked for you in the past?

- Some people talk about the part of them wanting to change their eating patterns, and part of them not really wanting to change. Is this true for you?
 - On a scale from 1-10, how ready are you to make changes in your eating patterns?
 - How much does it worry you that you might return to old patterns of eating?
 - What makes you feel like you can continue to make progress if you decide to?
 - What are your hopes for the future if you can become healthier?
 - How do you feel about changing your eating or exercise behaviors?
 - How ready to change are you?
 - How would you like your health to be different?
8. How does this person's-built environment impact his ability to change activity?
- Well as an African American in his community he would be a role model, which would inspire others as well as motivate them to change to have a better life and live longer.
 - Also, based on the information provided from this patient, he lives in a rural area, which means there are few resources like a gym nearby.
 - Not having the resources to become more active will be one of the biggest struggles for this individual.
 - With regarding to his job, he drives truck for a living, which means they are few movements that the patient conducts every day.
9. What assumptions do you have about this person's willingness to change, reasons for health issues, etc.?
- I believe that if the patient wants to change and become more healthier, then he will, but based on similar cases, they are few people who change.
 - I believe that this person would have a really hard time trying to lose weight which may cause stress. Having stress would only make the situation worse because we are trying to make him feel and be healthy.
 - Overall, this patient has a low probability of changing his lifestyle.
10. Musculoskeletal Assessment:
- Through the screening test that was made for the patient, it demonstrates that the patient was not as healthy as it was predicted.
 - Although he did demonstrate effort in completing the activities.
 - Also, it demonstrated some weakness in hip rotation, ankle, intrinsic foot weakness, etc.
 - Although this patient has a lot of issues, there is still a way to help him overcome all this weakness and that is by improving his activity level.

Plan:

1. What recommendations would you give this person to improve/increase activity?
 - Get off the bus or subway one stop early and walk the rest of the way.
 - Replace a coffee break with a brisk 10-minute walk. Ask a friend to go with you.
 - Look into local program for physical activity.
 - Join the office softball team or walking group.
2. What corrective exercises would you prescribe to this individual for each of the concerns addressed in Assessment #10?

The following would be some of the view activities we would start with this patient.

- Dead bug
 - Hip Opener with Glute activation
 - Bird Dog
 - Lying Y with external rotation of arms and abdominal bracing
 - ½ Kneeling Hip flexor - to improve his knees.
3. What recommendations would you give to help alleviate the stress he feels from his job?
- Find help and reach out to help beat stress within your job.
 - The act of talking it out and getting support and sympathy especially face-to-face can be a highly effective way of blowing off steam and regaining your sense of calm.
 - Support your health with exercise and nutrition
 - health with good nutrition and exercise, you're stronger and more resilient to stress.
 - Don't skimp on sleep
 - skimping on sleep interferes with your daytime productivity, creativity, problem-solving skills, and ability to focus.
 - Prioritize and organize
 - When job and workplace stress threaten to overwhelm you, there are simple, practical steps you can take to regain control.
4. **Helpful Information:** Be specific in your recommendations including the amount of time, type of exercise, and days per week.
- Start by exercising 2 times a week for 30 min.
 - Reduce your caffeine by drinking at least one time per day.
 - Chew gum to destress yourself.
 - Spend time with family and friend
 - Get involved in the community at least 3 times a month. This way you can stay active.
 - Finally, go on a walk at least one time per week for 1 hour.
 - Limit your time on your phone, by at least one hour.