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Introduction

In this report, I will examine the normal and abnormal elements of physiology from a selected patient that shall be referred to as Patient A. In the report, I will analyze the connections between the findings of the Health and lifestyle questionnaire, body functioning, and other relevant detailed anatomy and physiology. Obesity has been chosen as a topic to explore in this report because of patient A lifestyle. According to (ScienceDirect, 2019), It is a complex multifactorial disease, research in physiology helps to understand how the body works, how it responds and adapts to the challenges of everyday life; it also helps us to determine what goes wrong in disease, facilitating the development of new treatments and guidelines. According to the Physiological Society (2020) when the normal physiology of the body is disrupted by a health condition such as obesity, the body will start to have physiological dysfunctions which then can lead to a serious health condition such as obesity, type 2 diabetes, coronary heart disease, stroke, and even cancers.

Obesity can affect your mental health with conditions like depression and low self-esteem according to (Obesity - Causes, 2020).

I will evaluate against the collected data from the questionnaire to current health recommendations to see if it will work with patient A. Suggestions and recommendations will be made to improve the individual's condition based on the answers to the questionnaire. A holistic approach will be made with recommendations and a proposal of solutions to blend in with patient A's lifestyle, the changes will play an effective role.

Causes of Obesity

According to (Obesity - Causes, 2020) the most common issue that causes obesity is a poor diet, unhealthy eating habits can be learned through families/friends, certain foods or meals become habits that are from your parents/cares when you were young and continue them into adulthood. Consuming large amounts of processed and fast-food, drinking too much alcohol, eating out or eating larger portions than one needs, and drinking too many sugary drinks are all actions that lead to obesity. Comfort eating also plays a part in obesity, some individuals may have low self-esteem or feel depressed, which makes them want to eat more.

A lack of physical activity is an extremely important factor related to obesity; many people have jobs involving sitting at a desk for long hours, rely on cars or other transport methods rather than walking or cycling. Some people are less active and tend to watch TV/Netflix, browse the internet, or play computer games, and are inactive in exercise. Not exercising will lead to food being stored as fat and not energy. Other factors such as genetic conditions can cause obesity, such as Prader-Willi syndrome, but saying that there is no reason why most people cannot lose weight. It may be true that certain genetic traits are inherited from your parents, such as having a large appetite that makes it difficult in losing weight, however it certainly does not make it impossible. My patients' maternal side of the family does have a history of High Cholesterol and stroke which indicates risk factors according to (What to Do When High Cholesterol Runs in Your Family, 2020) this condition is called familial hypercholesterolemia (FH). Cholesterol builds up along the walls of your arteries and veins, narrowing the passageways and increasing the risk of heart attack and stroke. Patient A does not have cholesterol which is a positive sign.

Underlying medical conditions can contribute to obesity, these include an underactive thyroid gland (hypothyroidism) which is when your thyroid gland does not produce enough hormones, However, this can be treated once diagnosed. According to (When Your Weight Gain Is Caused by Medicine - Health Encyclopaedia - University of Rochester Medical Centre, 2020) certain medications can contribute to gaining weight such as insulin, thiazolidinediones, and sulfonylureas for diabetes, birth control pills, and Blood pressure-reducing medicines.

Case Study

Patient A is an individual who has a high-stress life due to work and religious commitments, she comes from a Black African ethnicity background and as a Christian fast three times a week. Although this is a good action to help lose weight, she is not seeing any results. According to (Body Mass Index (BMI) In Adults, 2020) BMI stands for body mass index this is a numerical value of your weight about your height.

Patient A's BMI results say she is Obese see (appendix 1) according to the NHS BMI calculator. There are many factors as to why this may have accrued, such as eating patterns, not enough exercise throughout the week. The patient ethnicity indicates cultural food containing ingredients that are not beneficial to her at this moment due to her weight. She is religiously and socially active which makes it difficult to avoid certain food or commit to a diet plan. The patient has mentioned that their metabolism is of low functioning and has had a hysterectomy.

Assessment Report

The healthy lifestyle questionnaire shows that various health care issues are contributing to Patient A's obesity (see appendix 2).

The following are:

Patient A does not have an exercise routine due to a busy schedule nor does she have high blood pressure, which is a good sign as High blood pressure can significantly increase the risk of coronary heart disease, stroke, and kidney disease according to the British heart foundation (2010).

Although Patient A does not have Cholesterol it is a hereditary factor from the maternal side according to (What is familial hypercholesterolemia (FH), 2020) "Genes play a role in your cholesterol levels as they affect the way your cells take cholesterol out of your blood, once you have been diagnosed it can be treated with medicines and a healthy lifestyle."

Additionally, the questionnaire states that patient A is Prediabetic Meaning they are not diabetic, but their blood sugar levels are higher than normal, therefore they need to be cautious of their diet and sugar intakes. Her BMI result shows that she is obese, this was calculated with information such as height, weight, sex, and ethnicity (see appendix 1).

I have also found out that Patient A does not have regular meals and tends to snack often due to work and religious commitments, she socializes therefore it makes it difficult to stick to a diet plan.

Patient A has a brilliant knowledge of smoking and the consequences of it and does not smoke, she drinks less than 1 unit per day which is beneficial as the guideline from the (New alcohol advice issued, 2020) states to keep health risks from drinking alcohol you should maintain a low level you are safest by not drinking more than 14 units per week. Patient A is Christian and fasts three times a

week, according to (8 Health Benefits of Fasting, Backed by Science, 2020) fasting has many health benefits from weight loss to better brain function. Several studies show that fasting may improve blood sugar levels.

My patient is also suffering from Rheumatoid arthritis on her arm, according to (Rheumatoid arthritis, 2020) this is a condition where symptoms can become worse known as flare-ups or flares, but with treatment, it's possible to decrease the number of flares and minimize or prevent long-term damage to the joints. Some people with this condition can also experience problems in other parts of the body, or more symptoms such as tiredness, this condition can influence how much patient A can exercise. As Patient A comes from an African background, I will consider her cultural background and help improve certain diet intakes, without offending or changing her sense of belonging. My patient should be able to eat her traditional food but being more mindful of a few simple ingredients such as oil, salt. However, if she can change certain steps in her meal e.g. instead of frying your meat/chicken or fish the traditional way cook it in the oven, research has shown that when you deep fry foods in oil, the high temperature that it is cooked in causes the starch in the food to convert to carcinogens (cancer-causing substances). Exposure to high levels of these carcinogens can lead to heart diseases and cancer, whereas baking requires little or no oil, and does not cause a reaction in foods, making them healthier according to (Tarafdar, 2020).

My Recommendations with current Recommendation

As my client has a very committed lifestyle with work and the religious community it would suit her to consider having an exercise partner with an exercise routine, where they will work out together this will enable her to be motivated and the exercise partner will be socializing and fun. From there slowly she can increase sessions and try to make it a daily activity during lunch breaks even a 10-minute walk is beneficial, this may help with stress as fresh air is beneficial. I also recommend doing meditating as a form of workout like yoga, according to (What Are the Benefits & Differences of Yoga and Meditation? 2020) Yoga is a holistic and mindful practice which is done by physical movements, breathing, meditation, and relaxation this can help patient A as they have a highly stressful life. Yoga can be self-soothing, by affecting the stress response system and quieting down the nervous system. It has an impact on those who tend to feel wound up, on edge, and restless. I believe my client can enjoy her traditional food but cooking it in a healthy way e.g. less oil, salt, and in the oven is a healthier choice. All these acts will help her lose weight and can decrease the chance of being diabetic.

A routine Blood test should help patient A as she has other medical conditions such as thyroid gland issues, and is also prediabetic she needs to make sure that it is frequently checked and monitored therefore if anything changes right actions can be made e.g. prescribed medication to help the condition.

According to (Obesity - Causes, 2020) the Department of Health and Social Care recommends that adults try and do 150 minutes of moderate-intensity aerobic activity, such as cycling or fast walking, every week. This can be done in many ways it does not need to be done all in a single session, you can break it down into smaller sessions e.g. you could exercise for 30 minutes a day for 5 days a week. If you are obese you may need to do more exercise than this, it may help to start slowly and gradually increase the amount of exercise you do each week.

Conclusion

A healthy lifestyle will help Patient A lose weight, this report has led me to understand that obesity is a growing problem, it is important to have regular check-ups with your General Practitioner (GP), by doing this you can prevent obesity. The NHS (Obesity, 2020) has said that in the UK it has become a common problem, it's estimated to affect around 1 in every 4 adults and around 1 in every 5 children aged 10 to 11. Recently the NHS have come together with schools in England, and are trying to prevent and educate children/young people along with the help of teachers, parents, and carers/guardians by carrying out actions like examining their BMI and letting parents/cares know the status of their child, from there they help by educating preventative methods, e.g. letters with advice on healthy eating, what foods to eat and what to avoid, simple walks and exercise routine with a length of time and how often.

Obesity can cause Cardiac arrest this can be fatal and causes instant death according to heart.org (2020),

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Appendix 1

Your ethnicity means you will be at high risk of health issues at a BMI of 27.5 and above.

Losing and keeping off 5% of your weight can have health benefits, such as lowering your blood pressure and reducing your risk of developing type 2 diabetes.

You should work towards achieving a healthier weight over time. We suggest you visit your GP to discuss.

Aim to lose 5.2kg

Recommended daily calorie intake:
1608 - 2067 kcal

To lose 1-2lbs a week stick to the lower end of the range.

Appendix 2

To help us find out about your health and life style we would like you to fill out this questionnaire.

Name - Patient A - DOB - Early 50s

None Smoker - Good education on Smoking

No High Blood Pressure - BP = 128/100

No Heart Attack -

None Diabetic - Pre Diabetic

None cholesterol -

Height - 5'3" Weight - 103.80kg

Exercise - an hour throughout the week

Diet - Snacking, No regular meals

Drinking Alcohol - less than 1 unit a day And when socialising But not driving.

Stroke on mertertal side -

Additional Information

Ethnicity - Black African

Religion - Christian - Fast 3 days A week

High stress lifestyle - Due to work and Religious Commitments

Other Medical information -

Hysterectomy - In balance hormones/Sweating hot flushes

Low metabolism - ~~High~~

Thyroid glands issues

Rheumatoid Arthritis on Arm