



INTRODUCTION TO PHYSIOLOGY BMHP5003

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Introductions

Health assessment is the means of collecting, validating, evaluating, and sharing information about a patient (Weilitz & Potter 2007). Hence, this is where thorough information including physiological, socioeconomic, psychological, social determinants of health, and lifestyle information is gathered, which are used to develop care plans that intend to improve health outcomes. Therefore, this health assessment report will be based on lifestyle questionnaire of patient A, who is at high risk of obesity. This assessment aimed to help identify any risk factors exhibited patient A which consequences of excess adiposity on a patient's body functional physical, and mental health, and offer recommendations on management of obesity based on patient's biodata, key health indicators and family history.

Case study

According to the health lifestyle questionnaire (see appendix), Patient A is 48 years old female with weight of 86kg, height of 165cm and 31.5 body mass index. She smokes 10 to 19 sticks of cigarettes per day. She has history of heart attack and high cholesterol in her family, whereby her father had heart attack at the age of sixty-eight (68) and her sister has a high cholesterol, though she has not either heart attack or high cholesterol, but her blood pressure is reading 180/90 (see appendix). Moreover, she regularly eats meat, chips and fries, and drinks between 3 to 6 units of alcohol a day, and she do not exercise at all.

Therefore, this questionnaire indicated that patient A is obese because she consumes high amounts of energy which contains a lot of calories without nutritional benefits, but she does not burn off this energy by exercising, and those extra energy will be stored as body fat then obese (NHS, 2019). Also, she is weighing more than her age and height needed and even her body mass (31.5) is bigger than health BMI, as the World Health Organization suggested that an adult considered obese if a BMI is equal or greater to 30 (WHO, 2021).

According to National Institute for Health and Care Excellence (NICE), obesity can be influenced by genetic factor, whereby there are 25 to 70% of the variation of genetic defects inherited from the parents that can influence an individuals' body ability turns food into energy and behaviour that predispose to obesity, as patient A indicated that she comes from a family with a history of heart attack and high cholesterol which can increased risk of her to become obese (National Institute for Health and Care Excellence, 2017).

Heath Assessment

Obesity has been recognized as serious public health challenges in the United Kingdom (UK), it is expected to impact 50% of adult women by 2050 (Barnett, 2015). Therefore, obese people have high risks of developing a variety of serious medical problems which impact almost all part of the body including the heart, blood vessels, joints, brain, bones, gallbladder, and bones, which can lead to heart disease, diabetes, liver disease, arthritis, depression, and other metabolic diseases, and putting to health and social care at risk (Sethi, 2020).

Because the patient A is having extra fat tissue in her body which will needs more nutrients and oxygen cause the blood to stop flowing to her brain and make her heart to work harder pumping blood around her body. Thus, the increase in intensity of the quantity of blood circulation lays more tension on the walls of her arteries, so which leads to having high blood pressure which is reading 180/90 (see appendix). Due to high blood pressure, the blood vessels that transmit blood to her heart become hard and narrow which can raise the risk of heart attack and blood clots result in a stroke that can cause the disabilities, such as speech and language impairment, changes to thinking and reasoning skills, and weakened muscles (Sethi, 2020).

Being obese, the body cell of patient A can be resistant to insulin. Thus, insulin is a hormone supplied by the pancreas which carry sugar from blood to cells and utilized for energy. Therefore, if her body is resistant to insulin, then the sugar cannot be carried by the cells, which result in high blood sugar. Thus, this can increase her chance to have type 2 diabetes because her blood sugar will be too high which may cause blindness, heart disease, stroke, kidney disease, and amputation (Mandal, 2019).

Because patient A is eating fats food with low in fibre can affect the function of bile (a green fluid formed by liver assisting absorb nutrients and digest fat) which may lead the leakage of acid into the throats that cause bile to build up and hardens and developing gallbladders which rising the risk of gastroesophageal reflux disease (Corleone, 2019).

People with obesity like patient A, when fat accumulated around their neck can making their airway to shrink and become too small, which can make them difficult to breath at night, sometime may they even stop to breath for short periods of time, snoring and lead to sleep apnea (Sethi, 2020). Yet, the fat that patient A body restored by eating fats food and drinking excess alcohol (see appendix I) can also build up around their liver and cause scar tissue, recognized as cirrhosis, to grow which can finally lead to liver failure and liver diseases such as fatty liver disease or non-alcoholic steatohepatitis (Lee, 2021).

Obesity can make it more difficult for a woman to get pregnant because pregnant women who have obesity are at greater danger of a variation of pregnancy-related difficulties, such as gestational diabetes and pre-eclampsia as well as initiating and maintaining of breastfeeding, compared with women of normal BMI (Denison et al, 2018)

Nonetheless, obesity can have a profound effect on patient A mental health because many obese people frequently feel judged based on their body size which lead them to feel sad, depressed, lack of self-worth, or lack of self-esteem (Sethi, 2020).

Recommendations

It is important for patient A reducing her energy consumption by 600 calories a day by having food no more than 1,400 calories a day by checking calorie info for any kind of food and drink she eat to make sure she do not consume over her daily limit (NHS, 2019). This will only happen by swapping high-energy and unhealthy food options, such as fries, alcohol, and processed food, for healthier options which will help her to lose 0.5 to 1kg a week. Therefore, she must eat plenty of fruit and vegetables, wholegrain food choices such as brown rice, whole-wheat bread, and oats, and eat lean sources of protein, such as chicken, eggs, beans, soy, and seafood (Pereira-Miranda et al, 2017). However, she must avoid foods contain high quantities of salt because she has high blood pressure, which can put her at risk of getting heart diseases like stroke which she has already have history on her family (Pacheco et al, 2018). Also, patient A should reduce amount of alcohol she is consuming everyday (3-6 units) which is too much according to NHS, because alcohol has high in kilojoules, so drinking excessive amount of it can stop her body to burn fat, make her feel hungry which can lead to poor food choices. Therefore, she must consume alcohol responsible as NHS recommended not to take more than 2 unit of alcohol a day (NHS, 2019).

Therefore, cutting the number of calories in her food will help her losing weight, but she needs to be consistent and continue to maintain her healthy choice by doing physical activity (Agha and Agha, 2017). As the Chief Medical Officers suggest that weekly adults must doing a least of 150 minutes moderate to intensity workout, but because patient A is not doing exercise at all (see appendix), there is no necessity for her to make radical changes to her lifestyle. So, she can at least have 30 minutes of brisk walking a day for five days a week, and once she gets used to it and capable enough to do more, she can increase her exercise routine by involving activities like push-ups and sit-ups at least twice a week (NHS, 2019).

If patient A experiencing symptoms of depression, she must get psychological support from her General Practitioner (GP) Which may help her to change the way she thinks about her body size, food and eating. So, the GP may be able to advise and referral her to a mental

health counsellor. Sometimes, the GP can also referral her to take part in a program such as cognitive behavioural therapy (CBT) which may help her to maintain her weight loss by sticking to her healthy eating, physical activity routines, and tracking her progress (Brown, 2020).

Nonetheless, it is advised for patient A joining in Public Health England's 'One You campaign' designed for adults aged 40 to 60, which provide guidance and opinion on healthy eating together with recipes, instructions to inspire physical activity, and an alcohol checker to monitor alcohol consumption (Public Health England, 2017).

Conclusion

Therefore, the health lifestyle questionnaire indicated that patients A is obese because she is consuming high amounts of energy which contains a lot of calories without nutritional benefits without doing any exercise, so, those extra energy will be stored as body fat. However, a mixture of diet and exercise can help the individual to lose the weight, but no one size fit all because people are different, so they do not need to make drastic changes to their lifestyle, the most important thing to do they have to be consistent and continue to make healthier choices every day.

This health assessment report has shown how obesity affecting body's function of patient A, as social care worker I must have a knowledge about anatomy and physiology that provides an overview of body functioning which will help me to understand the underlying problem of the patient because patients will have a disease, such as eating disorders, phobias, or memory problems, so to help them understanding what is wrong on their body and help to overcome with that problems, first I have to understand how the effected body system and certain organ supposing to functions then I will capable explaining to patients in a comprehensive way that can make them understanding.

Nonetheless, collecting information about a patient is very important in social and care setting because every individual is unique with unique need. So, as social care workers I must do assessment to recognise different patients' needs in order to deliver safe and effective care to them because if I failed to do health assessment properly, I may result in serious outcomes. Therefore, this assessment report gives me vital information on how to do assessment.

Therefore, with the help of this learning experience, as social care worker I will be able to help and support patients, I will have technical and scientific awareness which will make easier for making accurate decisions concerning of the care of the patient, and I will have enough essential knowledge of providing care in effective and efficient way.

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Appendix

LIFESTYLE QUESTIONNAIRE

Introduction:

In order to help us focus our Health Promotion activities in the practice, we would be grateful if you could fill in this short questionnaire. If you have already completed one on a previous visit, please return this questionnaire to the receptionist.

Name M.S.A Date of Birth 1/1/73

Do you smoke? Yes ☒ No ☐

If Yes, do you –

smoke less than 1	cigarette/day	☐
1 – 9	cigarettes/day	☐
10-19	cigarettes/day	☒
20-39	cigarettes/day	☐
more than 40	cigarettes/day	☐
smoke a pipe		☐
smoke cigars		☐

If No, have you –

never ever smoked	☐
given up smoking in the last year	☐
not smoked for more than 1 year	☐

Do you have high blood pressure? Yes ☒ No ☐

Have you ever had a heart attack or suffered from angina? Yes ☐ No ☒

Have you ever had a stroke, "shock" or any weakness down one side? Yes ☐ No ☒

Have any of the following – mother, father, brothers or sisters had –

a heart attack below the age of 60	Yes ☐	No ☐
a heart attack above the age of 60	Yes ☒	No ☐
a stroke	Yes ☐	No ☐
trouble with very high cholesterol (hyperlipidaemia)	Yes ☒	No ☐

Practice Use Only

Health Education Smoking

BP 130 / 80

Height 1.65

Weight 80 kg

EXERCISE

Healthy exercise usually involves activity that lasts for at least 20 minutes, raises your pulse and produces hard breathing. In younger people this might be running, cycling or sport, or brisk walking for older people.

Do you take this type of exercise –

- | | |
|----------------|-------------------------------------|
| daily | ☐ |
| 3 times weekly | ☐ |
| once weekly | ☐ |
| once monthly | ☐ |
| seldom | ☒ |

I cannot take exercise because of disability ☐

NO Ex 1

DIET

Please tick the one category which is closest to your usual eating pattern.

- | | |
|--|-------------------------------------|
| I eat no meat, fish or dairy produce | ☐ |
| I eat no meat | ☐ |
| I eat a mixture including daily fruit and vegetables | ☒ |
| I eat a mixture including regular chips and fries | ☐ |
| I eat frozen meals (eg TV dinners) 3 or 4 times/week | ☐ |
| I eat mainly snacks | ☐ |
| I eat a special medical diet | ☐ |

Please specify

ALCOHOL

Please tick the statement which most closely describes your usual average alcohol intake. (1 unit is 1 glass wine, ½ pint beer or a single measure of spirit.)

- | | |
|--|-------------------------------------|
| I never drink alcohol | ☐ |
| I drink less than 1 unit per day | ☐ |
| I drink between 1 and 2 units a day | ☐ |
| I drink between 3 and 6 units a day | ☒ |
| I drink between 7 and 9 units a day | ☐ |
| I drink more than 9 units a day on average | ☐ |

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Practice Use Only

- | | |
|----------------------------|--------------------------|
| Health Education Alcohol | ☐ |
| Alcohol Brief Intervention | ☐ |