

Module Code: BMHP 5003- BIRM
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Contents Page

Introduction.....	1
Case Study.....	1-3
Recommendations.....	3
Conclusion.....	3
References.....	4
Appendix.....	5-6

Introduction

Health assessment reports help health care professionals assess the health needs of their clients. By using systematic methods of identifying these healthcare needs, changes can be made to someone's lifestyle, to make sure the condition does not get worse (Mooney G, 1994). Health assessments create a plan of care that helps identify and spot the certain needs of a person, evaluating the health status of the individual through taking a health history and performing physical exams (imedpub, 2020).

Case Study

The case study presents the problems of an individual who suffers from cardiovascular disease. This is a disease of the heart and a general term for conditions that affect blood vessels (NHS, 2018), including hypertension, coronary artery disease (CAD), cerebrovascular disease, peripheral vascular disease, congenital cardiac abnormalities and more (Davidson, 1994). These conditions all usually include the narrowing of blood vessels, sometimes leading to strokes, angina or heart attacks. There are many symptoms included in coronary heart diseases, such as fatigue, chest pain, feeling dizzy, and swollen limbs. However, there are many ways these symptoms can be reduced, which is seen through the many risk factors of the disease. These include smoking, alcohol, being overweight, high blood pressure, high blood cholesterol and diabetes (bhf, 2019).

Smoking is a major risk factor for coronary heart disease, with both the nicotine that is inhaled and the carbon monoxide from the smoke, putting a massive strain on the heart. It does this by making the heart work quicker, therefore increasing the likelihood of blood clots (Stallones, 2015). As evident from the questionnaire, the individual being studied stated to be smoking approximately 10 to 19 cigarettes per day, which clearly puts the individual at high risk, as it has been made clear from research that people who smoke even a minimum amount of 5 cigarettes per day, still put themselves at risk. Smoking is seen to be one of the biggest risk factors, as it has even affected those who do not partake, as 33,000 non-smokers in the US die every year from exposure to second hand smoke (www.cdc.gov, 2018). There are many negative side effects the person will go through, due to their addiction to smoking. First it is quite clear from research and many studies, that smoking has a high chance of making the heart work harder. It does this by increasing the heart rate of the individual, tightening their major arteries, as well as causing irregular patterns in the rhythm of the heart (Benowitz, 2003). Smoking is also seen to lead to a high increase in blood pressure, which can lead to an increased risk of a stroke. There are many ways smoking can affect the cardiovascular system, one being atherosclerosis. This is when arteries become less flexible, and fat, cholesterol and other substances in the blood form plaque, that builds up in the walls of the arteries. Blood eventually

cannot flow to various parts of the body, as the plaque builds up in the artery, showing how smoking can harm the blood vessels, and lead to further complicated health issues.

A second health problem the individual suffers from is high blood pressure. High blood pressure, also known as hypertension, is a condition that describes how the pressure in an individual's arteries is a lot higher than it should be (American Heart Association, 2017). Hypertension is seen to be one of the biggest risk factors for all the different types of cardiovascular diseases, with 30-45% of the population in various European countries acquiring high blood pressure throughout their lives (Kjeldsen, 2018). There are two types of hypertension: primary hypertension and secondary hypertension. The individual has stated to be experiencing primary hypertension, which is a condition developed over time from a combination of genetics, the environment, and physical changes to the body (healthline, 2020). There are many life style choices, that can affect the level of somebody's blood pressure, these being smoking, unhealthy eating, being overweight and not exercising. There are many different limitations high blood pressure has had on the individual's heart, firstly how it can cause damage to the arteries. Heart disease can come about because of high blood pressure, as the arteries become less elastic and flexible, leading to a decreased flow of oxygen and blood to the heart. The main problem with this is that decreased blood to the heart can cause further implications, for example heart failure, heart attacks and angina, also known as chest pain (Fuchs and Whelton, 2020). The heart attacks may come about due to the heart being made to work faster, which can cause the left ventricle of the heart to become thicker. This can lead to a high chance of a sudden cardiac death, putting the life of the individual at grave risk (mayoclinic, 2019)

A third risk factor of cardiovascular disease has come about due to the individual's lifestyle choices. As apparent from the data collected from the questionnaire, the individual is not someone who actively takes part in exercise. Since as late as the 1980s, research has repeatedly discovered that the performance of regular exercise and keeping active at a low to moderate intensity, has high correlation with improving the risk factors that are associated with cardiovascular disease (Despres and Lamarche, 1994). There have also been major findings, that have shown regular aerobic exercise, can lead to a huge reduction in high blood pressure at rest for those who are middle-ages, which can also help in preventing the side effects of cardiovascular diseases (Hagberg et al, 1989). However, contrary to the research presented, the individual has described their exercise habits as 'seldom', explaining how it is quite rare for her to take part in some form of active exercise. This can have many negative implications of the individual's cardiovascular disease, starting with how with no exercise, blood pressure cannot be controlled. This can lead to less stimulation of nitric oxide, which can lead to the blood vessels finding it hard to stay open. A second negative aspect of no exercise for those with cardiovascular disease, is how the symptoms of angina and congestive heart failure will not improve (Powell et al, 1987). This is because if an individual who suffers from angina, like the individual being currently studied, then exercise can help supply blood to the heart, and will also lead to an improvement in how much exercise the person is able to perform of a regular basis. If the individual reaches a stage where the capacity of their exercise increases, then they are able to control how severe their angina is, and maybe even a reduction in their angina all together.

A final factor that has contributed and affected the individual's cardiovascular disease is their alcohol consumption. In accordance to many observational studies, those who drink a moderate amount of alcohol have lower cardiovascular risk than non-drinkers (Glymour, 2014). However, according to the questionnaire conducted, the identified individual consumes about 7 to 9 units of alcohol per day, which puts them in a 'heavy drinkers' category. Even though the type of beverage does not seem to have an impact, those who consume their alcohol at a rate above moderate, put themselves at an

increased risk of coronary heart disease (Rimm, 2000). The consumption of alcohol has many negative side effects on the heart and the cardiovascular system, starting with the fact that it can increase an individual's heart rate and blood pressure. Studies have shown how drinking alcohol excessively, can lead to irregular heart rates and can therefore result in tachycardia, increased heart rate due to problems in the signals that produce a heartbeat. This tachycardia will lead to varied lengths and frequencies of the heartbeat, and may eventually lead to a stroke or a heart attack. The act of drinking too much alcohol can also lead to higher blood pressure. It has been stated that drinking alcohol on a regular basis, in small quantities, can lead to a temporary increase in someone's blood pressure, however once you drink above the national average, like the identified individual, then it will result in permanent damage to your blood pressure.

Recommendations

There are many lifestyle recommendations that can be given so that the identified individual can have a healthier life and future. When it comes to the first health condition, smoking there are a few ways that will make it possible for the individual to stop their smoking, or at least reduce it. One recommendation is to integrate smoking patches and gum into their life, which will help reduce the need for nicotine. Another recommendation to stop smoking is to talk to others who have stopped smoking, to help educate them on risk of smoking continuously for years to come. When it comes to the problem of high blood pressure, dietary recommendations like drinking lemon water, eating watermelon seeds and garlic, is the way to a healthy life. It is also suggesting that the individual starts to understand the importance of taking medication such as beta-blockers, ACE inhibitors and potassium replacements. Once the individual is educated on the significance of taking medication to suppress their high blood pressure, it will be more possible for them to start living a healthy life. Dehydration is also a major risk factor for high blood pressure. In order to tackle both the problems of high blood pressure and the lack of exercise, increasing the amount of water intake will help to lower the blood pressure, allowing the body to maintain its fluid balance at a correct amount of 70%. It is also highly recommended that the individual takes on regular exercise, in order to keep their body and their heart healthy, helping to reduce their blood pressure. Finally, in order for the person to start taking their daily exercise more seriously, it is important to make them focus on their diet. Adding healthier options like fruits, vegetables and 2 litres of water, will help with making the transition to a healthy life easier. In order to stop the risk of having a heart attack or stroke, it is also recommended to limit the amount of alcohol consumed, started with going from 7 to 9 units a day to 3 to 5 units, helping to lower the individual's high blood pressure, therefore decreasing the risk of a heart attack.

Conclusion

In conclusion, it is quite clear that the individual suffers from many conditions that all lead to an increasing risk of cardiovascular diseases. The key findings of this report are that through a combination of smoking, high blood pressure and the lack of healthy lifestyle choices, like no exercise, can all have major side effects for those who suffer from cardiovascular disease. As apparent from the report it is quite clear that through a combination of many recommendations provided, the identified individual will be able to overcome, or at least reduce their symptoms through actively deciding to make healthier choices for their lifestyle.

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[High blood pressure dangers: Hypertension's effects on your body - Mayo Clinic](https://www.mayoclinic.org)

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[The NHS website - NHS \(www.nhs.uk\)](https://www.nhs.uk)

Appendix

Heath Assessment Questionnaire

Name: Sughra Bibi Date of Birth: 03/04/1952

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,

Practice Use Only

Health Education Smoking: GP surgery

BP:

Height:

Weight:

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 ☐

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 ☐

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 ☐

Practice Use Only

Health Education Alcohol ☐

Alcohol Brief Intervention ☐