

HSc – Physiology

UWTSD

Introduction of Physiology

Case Study Guidance

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Student Name: Miller Do Espirito Santo Avelino

Student Number: 2025206

Lecture's Name: Rachael Rivers

Contents

<i>Introduction</i>	<i>3</i>
<i>Diet</i>	<i>5</i>
<i>TIP.....</i>	<i>8</i>
<i>Lifestyles choice</i>	<i>11</i>
<i>Conclusion</i>	<i>13</i>
<i>Reference:.....</i>	<i>14</i>
<i>Appendices</i>	<i>16</i>

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Introduction

The main objective of this assignment is to develop a report on Bob's health status, as this is a situation that concerns us in terms of future health care and difficulty sleeping every night.

First, this report will broaden o the case study, bringing together the ideas and preventions delegated by the National Health Service, NHS, and other institutions that can assist Bob in regaining control of his health and becoming healthier.

Following that, I will provide some examples and recommendations to aid in the investigation of this case.

Finally, I will provide a detailed summary to complete the work.

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Case Analyses

According to the case study, various causes or reasons contributed to Bob's chaotic state of health. There is the loneliness of living alone in a house when he used to live with his entire family. Also, it is known that parental support is the best medicine for health.

A based questionnaire, it appears that he is not in good health, he has signs such as overweight, he does not control his diet, he is not a passive smoker, he has a history of more than 30 years of smoking, and he uses a lot of whiskeys to sleep.

Also, he has difficulty sleeping at night because he is constantly on the road driving. People must sleep at least 8 hours per day, and Bob does not meet these requirements.

Analysing his situation reveals several topics related to his cause, such as diet, quality of life, lack of physical activities, and malnutrition, as he does not eat and drink well daily.

One of the primary influences on his health is that he is a truck driver, and we know that truck drivers spend long hours on the road and expend more energy due to the current shortage of heavy vehicle drivers in the UK. So, it is discovered that Bob works a lot and is trapped inside his vehicle all day, which is harmful to his body and mind.

Driver Require, (2022), said that it is critical for truck drivers to stay in good health at work. As it is a physically demanding job, drivers must ensure that their general health is in good working order so that they can drive safely. That is why they must always drive safely and follow industry protocol.

As a result, they introduce some tips to help Bob take care of himself, such as eating a healthy diet, staying hydrated, engaging in physical activity, and getting enough sleep. (Driver Require, 2022).

According to Greenfield (2016), there is a workplace health, disease prevention, and health plan that can improve health outcomes and productivity while also lowering costs, so I would advise Bob to follow this programme to stay and get healthy.

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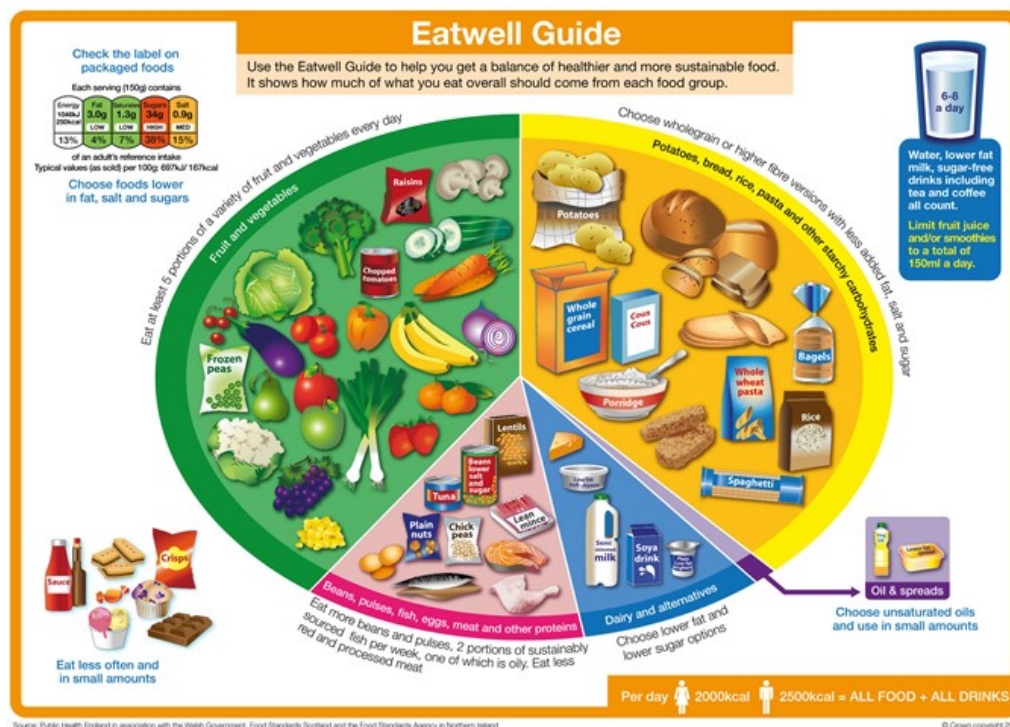
Diet

In relation to Bob's diet, as I mentioned above, it may be due to the loss of something; in this case, the cause of this can be seen as the separation of the family; this will all be harmful to his health; it makes him think and spend more time at work as a way of overcoming, making it difficult to cooking or control diet.

In other words, he may be suffering from malnutrition, which, according to the NHS (2020), is a serious condition that occurs when the diet lacks the necessary nutrients because he only eats and goes and does not always have time to have control over what he eats. Also, do not forget that he consumes a lot of Coca-Cola, which contains gas and is not good for his health, so he should avoid it and instead drink water or other soft drinks like juices.

NHS (2020) said that eating healthy is well-balanced for the body. Anyone can improve their diet based on food groups and get the most out of them. To avoid the worst-case scenario, Bob can hire someone to do his shopping and cook for him, as he is always busy with work. It'll also allow him to eat better and greater control his health. Another way to stick to nutrition is to print the page with the food groups that should be consumed so that they have them on hand.

However, I recommend that Bob follow the Eatwell Guide to maintain a healthy and balanced diet. The guide can help him find the different types of foods and drinks he should consume, as well as the number of food proportions he can eat every day or over the course of a week (NHS Inform, 2017).



(NHS Inform, 2017)

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The 5 main groups of food and drinks could be applied to the Bod

- ✓ According to NHS Inform (2017), Bob's diet should be controlled if he consumes the following foods:
- ✓ Vegetables and fruits
- ✓ Bread, potatoes, pasta, rice, and other carbohydrate sources
- ✓ Vegetables, beans, eggs, meat, fish, and other proteins
- ✓ Dairy
- ✓ Choose aromatic hydrocarbon oils and pastes and consume them in moderation
- ✓ Drink 6-8 glasses of water per day

He could choose a variety of foods from each group to help him get the nutrients he needs to stay healthy. Also, regardless of weight, dietary restrictions, or ethnicity, these recommendations apply to most people (NHS health, 2022).

In addition, if Bob has special dietary or medical needs, he could wish to discuss with a registered dietitian how to greatest adapt this guide to his needs. Also, NHS health (2022) recommends to Bod to utilises the Eatwell Guide to assist him in making healthier choices such as:

- Make a meal plan.
- Meal preparation of fresh food
- Shopping for food
- Dining out or on the run

As a result, it is observed that many of the meals we consume are combinations of food groups. So, when planning meals, he can calculate the main ingredients and consider whether these foods fit the 5 major food groups strategy (NHS health 2022).

Related to fat, (NHS health, 2022) emphasizes the necessity of including some in the diet. As a result, it is extremely beneficial to eliminate foods high in fat, such as salt and sugar, because these types of foods are not required for the diet, this small text refers to Bob, since he eats and goes, sometimes these foods have a lot of fats, so it is recommended to cut them to achieve a healthy balance. But, as a heavy vehicle truck driver, with long hours on the road and sleepless nights, it is advisable to consume some fat because it is high in energy.



*It's recommended that we
eat at least 5 portions of
fruit and vegetables a
day.*

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Hydration

Whiskey is a very strong drink in terms of percentage, so drinking a whole bottle at home is also considered harmful to health and a risk to society because you may engage in antisocial behaviour. Knowing that he doesn't eat well and that he could have a heart attack and be in a coma (NHS, 2018)

As we have seen, he consumes a lot of coca cola, which should be reduced as much as possible, because for him to be well hydrated, considering that a lot of energy is lost, according to NHS Inform (2017) Bob should drink 6 to 8 glasses of liquid per day. Water, low-fat milk, and unsweetened beverages, such as tea and coffee, are recommended as examples. Could he also drink fruit juice, it also contains free sugars and should be consumed in moderation, with no more than 150ml consumed per day?

How much food does Bob need to eat

Based on the image below, Bob, an adult 5'9 overweight, who needs to be controlled, must consume 2500 kcal (Calories), which equals 10,460 KJ (kilojoules) (NHS inform, 2017).

Age	Daily energy requirements			
	Males		Females	
	kcal	kJ	kcal	kJ
1	765	3201	717	3000
2	1004	4201	932	3899
3	1171	4899	1076	4502
4	1386	5799	1291	5402
5	1482	6201	1362	5699
6	1577	6598	1482	6201
7	1649	6899	1530	6402
8	1745	7301	1625	6799
9	1840	7699	1721	7201
10	2032	8502	1936	8100
11 and over	2500	10,460	2000	8368

Try to:

- eat only as much food as you need. Improve the balance of your diet by looking at the Eatwell Guide
- get more active! If you're eating a good balance of the different food groups, and you're a healthy weight, you're probably eating about the right amount

(NHS health, 2022)

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TIP

I personally believe that the current guidelines and health promotion strategies provided by Public Health England and other organisations are clear to the entire population; this will apply well in Bob's case because there are many advertisements and means these organisations offer to support any citizen, one example is the number of GP that exist in the country to attend to the problems of everyone.

Know that Public Health England works 24/7 to protect and provide better health for all (Public Health England 2022).

PHE (2022) said that they guided into four steps with several aims:

To keep people safe, they can respond to emergencies by protecting people from threats of environmental hazards and infectious diseases staying great at home and outside.

To prevent poor health, they want people to live longer in good health, using the NHS and social assistance less and less as they get older, staying at work longer and, when sick, staying in their own homes longer. If Bob needs help, he will be directed to the nearest NHS.

To narrow the health gap, it aims to reduce unfair and avoidable health disparities in minority communities.

To support a strong economy, they focus on ensuring each citizen's health because it is an asset to the UK economy, so they do everything they can to ensure people live long and productive working lives.

HEALTHIER	1	Smoke-free society Take steps towards creating a smoke-free society by 2030
	2	Healthier diets, healthier weight Help make the healthy choice the easy choice to improve diets and reduce rates of childhood obesity
	3	Creating cleaner air Develop and share advice on how best to reduce air pollution levels and people's exposure to polluted air
	4	Better mental health Promote good mental health and contribute to the prevention of mental illness
FAIRER	5	Best start in life Work to improve the health of babies, children and their families to enable a happy healthy childhood and provide the foundations of good health into adult life
SAFER	6	Effective responses to major incidents Enhance our ability to respond to major incidents (including pandemic influenza) by strengthening our health protection system
	7	Reduced risk from antimicrobial resistance Work to help contain, control and mitigate the risk of antimicrobial resistance
STRONGER	8	Predictive prevention Utilise technology to develop targeted advice and interventions and support personalised public health and care at scale
	9	Enhanced data and surveillance capabilities Improve our data capability and strengthen our approach to disease surveillance using new tools and techniques
	10	New national science campus Transition to a new national science campus with state-of-the-art facilities at PHE Harlow

(PHE 2022)

We will promote a healthier nation

1 Smoke-free society



Despite significant progress in recent decades, smoking remains the leading risk factor for premature death and poor health in England. It accounts for around half of the difference in healthy life expectancy between the most and least deprived communities in the country and is estimated to cost society around £12.6 billion each year through lost productivity and demand on health and care services.

Ambition

To make smoking obsolete by 2030 by reducing the overall number of people who smoke, preventing young people from smoking in the first place and targeting vulnerable population groups and areas where people smoke at higher rates.

Aims

This will contribute to the Government's aims in the Tobacco Control Plan to reduce the smoking prevalence among adults to 12%, the percentage of pregnant women smoking at the time of delivery to 6% and the rate of regular smoking age at 15 to 3% by 2022.

- reduced death and disease attributable to smoking, including from cardiovascular disease
- reduced variation in smoking prevalence rates between socio-economic groups

Approach

We will maintain our leading role in this area and advocate for local and national action across the health and care system to reduce the health impact and inequalities of smoking in England. We will:

- advise and influence government on effective national and local tobacco control policy, including on harm reduction and effective treatment, that works to reduce overall rates of smoking and inequalities affecting lower socio-economic groups and vulnerable communities
- partner with the NHS to advise on, evaluate and provide implementation support for new models for identifying and supporting smokers to quit across NHS services nationwide, including a specific model for pregnant women
- influence and advise local authorities on the provision of evidence-based tobacco control action and local stop smoking services, including increasing targeting towards groups and local areas with the highest need
- deliver national marketing campaigns to stimulate effective quit attempts tailored to lower socio-economic groups
- commission, manage and promote reviews of evidence on e-cigarettes and emerging nicotine products and provide advice on their toxicological impact
- advise on national regulation activities for smoking and tobacco-related products following the UK's exit from the EU

2 Healthier diets, healthier weight



Across the population, we consume too much sugar, salt and saturated fat and not enough fruit, vegetables, fibre and oily fish. According to latest estimates, poor diets and excess body weight deprive people in England of more than 2.4 million life years through premature mortality, illness and disability each year. Rates of obesity continue to cause a disproportionate impact on families from poorer areas as the gap between the most and least deprived widens.

Ambition

To enable current and future generations to live in local environments that promote a healthier weight as the norm and make it easier for everyone, regardless of background, circumstance or where they live, to access healthier food, enjoy healthier diets and live active lifestyles.

Aims

This will contribute to the Government's aims in the Childhood Obesity Plan to halve childhood obesity and reduce the gap in obesity rates between children from the most and least deprived areas by 2030.

- 20% reduction in levels of sugar in a range of everyday foods consumed by children
- 20% reduction in numbers of calories in a range of everyday foods consumed by children
- increased consumption of healthy food groups among children
- reduced levels of salt in average diets across the population

Approach

We will further strengthen our national leadership in this area emphasising interventions that can deliver the biggest impact for children in the most deprived areas. We will:

- advise national government partners on policies to improve diets and lower obesity rates across the population and among disadvantaged groups
- lead the reduction and reformulation programme to reduce sugar and calories in everyday foods, including advising government on the reformulation of infant foods
- provide expert advice and monitoring of the nation's diet to support the salt reformulation programme, including work to lower levels of salt in those everyday foods which are the greatest contributors to average population salt intakes
- develop and roll out a national learning and development programme for the broader health and care workforce on nutrition and action to tackle obesity
- partner with local government, the NHS, voluntary organisations and communities to support local models of care to promote a healthier weight, focussing on areas where there is greatest need
- work with local government and other partners, to support the implementation of a 'whole systems' approach that considers how all elements of local places, communities and services can help to address obesity and the variation in obesity between the most and least deprived areas

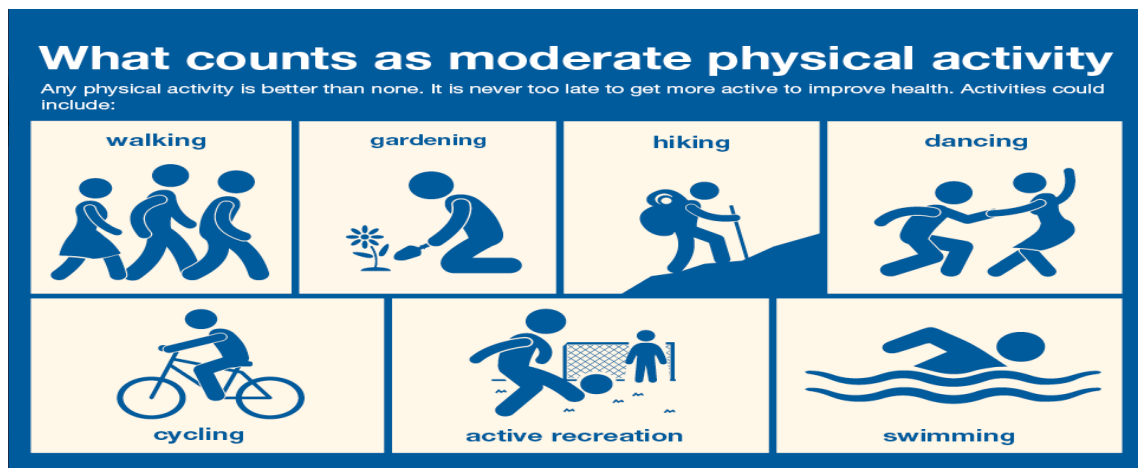
Activity

It's worth noting that Bob's situation is questionable, as he weighs 15 stone, has serious health problems, isn't on a diet, has poor sleep drinking too much coca cola. It is advised that he can do regular exercise when he spends time at home.

According to the NHS, adults should engage in some form of physical activity every day, as even doing exercises once or twice a week can reduce Bob's risk of heart disease or stroke. For example, because Bob has not done any activity in a long time, he should consult his doctor before beginning anything, the GP could recommend some activity to do at home or in the park.

Bob, on the other hand, is advised to establish the objective of doing the exercise twice a week to strengthen his body by working the major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

Also, (NHS, 2021 Said that he can do at least 150 minutes of moderate-intensity activity per week or 75 minutes of vigorous-intensity exercise a week to reduce the amount of time he spends on the road driving. Distribute exercise evenly over 4 to 5 days a week, or every day, with some activity to break up long periods of inactivity.



(Public Health England 2016)

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Exercise Has Many Advantages

It is regarded as a miracle cure for all. In Bob's case, exercise can help him reduce his risk of serious diseases like coronary heart disease, stroke, type 2 diabetes, and cancer, as well as his risk of dying prematurely by up to 30% (NHS, 2021).

My question to Bob is why you do not risk-taking the time to search for a personal trainer. Being healthy is to be safe also could help you gain more life and be active

Lifestyles choice

In my opinion, as we know about Bob's situation, I'd like to explain that he became this because he chose this life. Of course, that family now is separated and divorced, but the best thing Bob could do to eliminate this was to try to find another wife, and to make frequent visits to his daughter and grandsons.

However, as problems never end, he could start another life, not forgetting that it had a very close family environment, also he was the main cook at home, so why change and introduce problems to his health and focused on drinking whiskey to struggle against sleep?

Based on this, I advise Bob to make another type of life decision, because engaging in behaviour that may increase or decrease the risk of injury or illness is a personal and conscious decision.

In other words, Bob will benefit both physically and mentally, living a longer and healthier life, and at 52, he still has a lot to live and enjoy, so changing his lifestyle won't hurt.

Moreover, to conclude I advise Bob to follow these 6 types of Lifestyles factors that can promote good health (Verywell, 2019):

- ✓ Getting the right amount of sleep
- ✓ Eating Well-balance Meals
- ✓ Making time for physical activities
- ✓ Keeping a Health body weight
- ✓ Not smoking or chewing Tabaco
- ✓ Limited avoid alcohol

Working as a truck driver necessitates good health, so Bob should understand that living well entails more than just physical health; mental, social, and spiritual health are all equally important (Verywell, 2019).

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Making healthy lifestyle choices may reduce your risk of dementia.

We don't yet know for certain what, if anything, can prevent dementia, but there may be steps you can take to help reduce your risk.

 Control high blood pressure	 Sleep well	 Eat a healthy diet	 Keep physically active	 Connect with family and friends
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(National Institute on Aging, n.d.)

Conclusion

To conclude this case study, I would like to remind all that we are dealing with a situation that necessitates a great deal of care and attention from all of us Health and Social Care students and Lecturers, Public Health England has done hard and evolutionary work to fight this cause, as has Bob.

Eventually, Bob's family has problems with the separation, it's likely that he goes through this chaotic situation. As health is the basis of our life, he should do more health checks visit his doctor and eat healthy to haven't got health issues, but not he decided to focus more on work doing long hours and started to drink bottles of whiskey to help him sleep, doing the poor diet, so this gave rise to weight gain. Also, a lack of physical activity can lead to high blood pressure and cardiovascular disease.

In terms of the family issue, Bob could seek the help of a psychologist to overcome it, and who knows, maybe only then will the family be able to bring him closer. Not to mention that one of the causes of obesity and health problems is loneliness, which has affected many people in the UK.

Finally, as a Health and Social Care student, I would like to remind you to maintain a balanced diet, regular exercise, adequate sleep, and weight control. It's also critical to maintaining one's mental health because living a better lifestyle necessitates a healthy body

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Appendices

Key points of the health questionnaire	Additional information/comments
Age	10-16 16-25 25-35 35-55 <55
Occupation	Truck Driver
Smoking status	0-----10 10
Height	5.9
Blood pressure	High blood Pressure Hypertension Stage 2 Systolic Diastolic 140 mmHg ----- 90 mmHg