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Executive Summary

Physiology has been one of the vital stream under the consideration where the issues of the human body reflected thoroughly. The report has been developed to highlight the consequences that a person can have due to obesity. There are many aspects and consequences that have been started by the researcher. Basic information about obesity and the process of prevention is also mentioned in the report. Major and minor risks of obesity are also highlighted in this report.

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Introduction

Introductory Human Physiology refers to the course where learners get to learn the identification and application of the basic concept of the intact organism. This concept governed integrated functions of the body included in the nine organ systems of the human body. Physiology stands for the case study of the human body's characteristics and mechanisms. This assignment has been developed by the researcher for highlighting the aspects of human physiology and the consequences of obesity in the human body. The entire part of the research is depending on the above-mentioned factors to highlight the risk factors of the disease and way of prevention.

Basic knowledge of the disease

Definition

A human body condition is characterized by excessive and abnormal accumulation of fat.

A condition characterized by abnormal or fat accumulation.

Classification

Obesity can be classified in multiple variants based on fat deposition area. The main three variants of obesity are central obesity, peripheral obesity, the combination of both of them.

Causes

A sedentary lifestyle, as well as a high intake of calory, is the main reason for diabetes. However, the other common reasons are genetic issues, physiological influences, weight history. The major and risky reasons are unhealthy diet, hereditary, sedentary lifestyle, consumption of drugs included steroid hormones, Pregnancy, unhealthy sleeping cycle, medications to treat psychiatric conditions, and Quitting smoking (Fraserand Edwards, 2021, p.258).

Symptoms

- i) Manin symptoms of obesity are having bodyweight over average BMI
- ii) Becoming insomniac

iii) Sleep apnea- a condition

iv) Skin problems due to accumulation of moisturizer in the skin folds.

v) Varicose veins

vi) Gallstones

vii) Osteoarthritis can be observed in Weight-bearing joints mostly for knees.

Complications

A person can suffer from many complications from being overweight. Lacking treatment can lead to diseases such as Type 2 diabetes, High blood pressure, Heart disease, Certain cancers in the colon, breast, and endometrial, Infertility, Arthritis, Gallbladder disease, Stroke, High cholesterol, Fatty liver disease, Osteoarthritis especially in knees, Chronic lower back pain, Sleep apnea, and others.

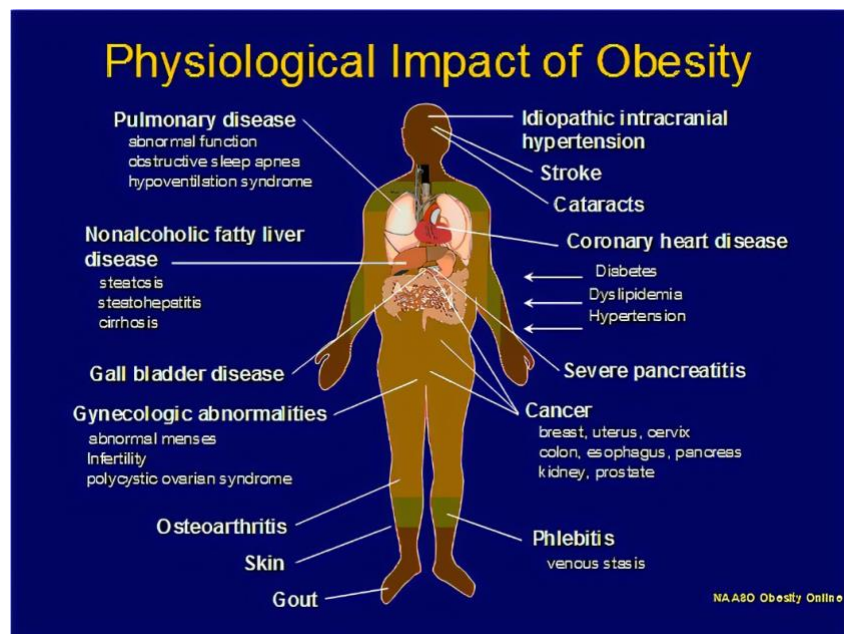


Figure 1: Philosophical impact of Obesity

(Source: Peters *et al.* 2021, p.258)

Diagnosis

Obesity can be diagnosed by the evaluation of the following factors:

Body mass index (BMI)

This provides calculation required body weight suitable for a person depending on their age, weight, and height ratio.

Anthropometric evaluation

This refers to circumference tape measurements of hips and waist, skin fold callipers.

Treatments

Changing an unhealthy lifestyle such as doing regular exercise or alteration of diet are the key elements of treatment. In rare and major cases, the professional refers to surgery. The general procedure of bariatric surgery is sleeve gastrectomy, biliopancreatic diversion, and sleeve gastrectomy through the duodenal switch (Yates *et al.* 2021, p.58).

Prevention

Obesity can be prevented by following the below-mentioned points:

- i) Regular physical activities
- ii) Following a healthy diet
- iii) Maintaining average body weight is recommended by the body mass index.
- iv) Control in calory consumption
- v) Maintaining a proper routine of sleeping

Examine the body structure

The structure of the human body is established through a complicated systematic structure that takes action altogether. There are multiple organizational levels of this structure that becomes complicated than the previous cells, makeup tissue, and general building of human body blocks. This specialization structure of the human body is known as organs.

Excessive fat in these structural cells causes the issue of overweight. This can happen due to many reasons. The issues of obesity also create negative impacts in several parts of the human body including blood vessels, the heart, liver, bones, joints of the body, brain, gallbladder, and others.

UK healthcare maintains a structure of healthy body structure depending on the measurements of the Body Mass Index. According to NHS, BMI can be classified into four variants that are underweight, healthy weight, overweight and obese.

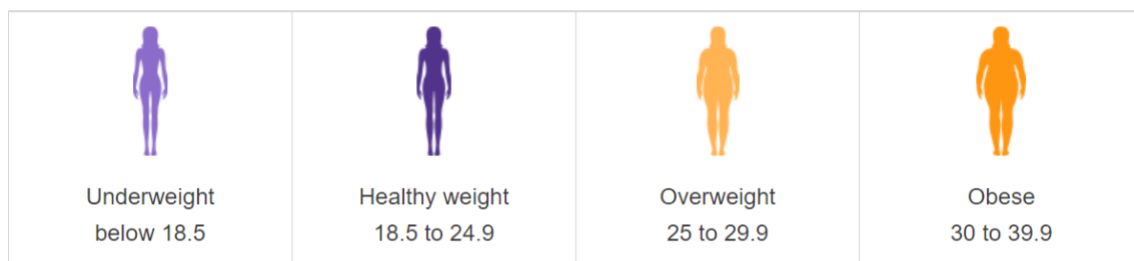


Figure 2: Healthy and Unhealthy BMI structure

(Source: healthexpress.co.uk, 2022)

Classification of Weight in the UK

Healthcare professionals in the UK classify the weight of a person depending on the person's body mass index. However multiple flaws can be visible in this system. As an example, bodybuilders have a high BMI due to their muscle structure however, it does not create a fair reflection for their health. This is referred to as a healthy indication of body weight associated with the height of the person.

Analysis

In the current scenario, the entire world is having a huge problem with obesity. This increasing issue is prevalent in the UK and holds the highest rank in entire Europe. However, the UK government and NHS are taking effective decisions to mitigate this hindering issue.

Obesity can be visible in both adults' children of the UK. Approximate rates of obesity among adults are more than 39% women and 32% men are included. From the previous survey, it can be observed among 4 people in the UK falls under this category(Miller *et al.* 2021, p. e13113).

The health of a person can have potential risks and consequences for overlooking the symptoms of the disease. In this context, NHS commented that men with obesity are 5 times more similar to cause type 2 diabetes. In the same context, women are 13 times more likely to tend to type 2 diabetes. This type of diabetes can often be diagnosed. With high obesity, a person can also face issues of blood pressure.

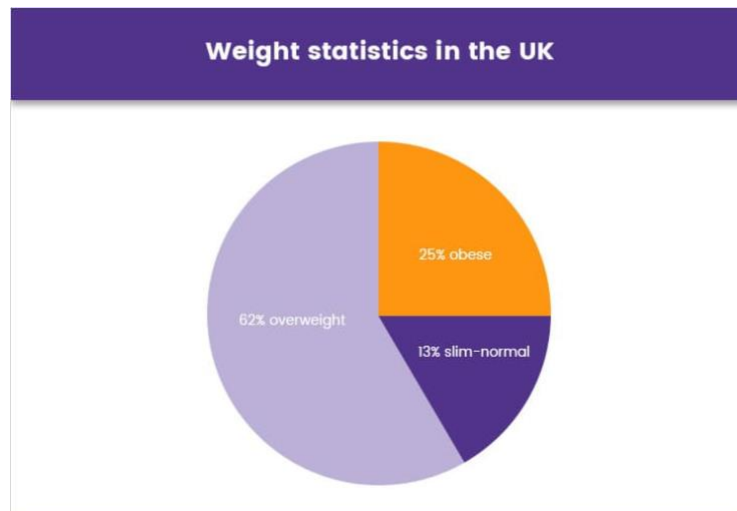


Figure 3: Overweighted Person Ratio in the UK

(Source: healthexpress.co.uk, 2022)

Discussion

Facts and figures of obesity in the UK

In the UK obesity is increasing day by mainly in the last 30 years. Along with the increase in obesity other related issues. Issues associated with obesity have become the major strains on the NHS. This is essential for highlighting the factors of lifestyle and setting targets for losing weight.

Obesity and High Blood Pressure

According to the report of the UK, around 40% of obese men and more than 35% of obese women are having severe blood pressure in comparison to men and women of normal body weight.

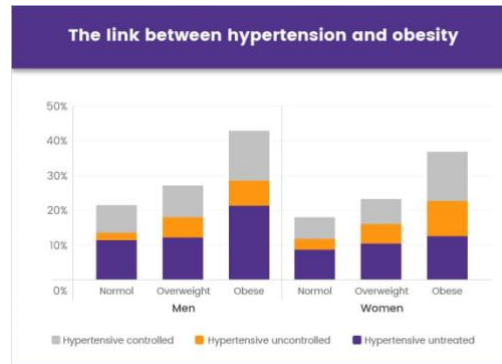


Figure 4: Rate of High Blood Pressure due to Obesity

(Source: healthexpress.co.uk, 2022)

Obesity and Children

The UK government has been declared a report that is highlighting that 1 child among 5 in the reception year of 4 to 5 years has been facing the issues of obesity. With the increase of age obesity also increase for children. Children's over 6 years old mainly 10-11 years are classified under excess weight and obesity. The figures for obesity can be observed at approximately 20%.

Image and Confidence Issue due to obesity in the UK

According to the report of the UK, government obesity is causing the issues of lack of confidence among children and adults. Parent of obese children also goes through depression to see their children getting over weighted. An unhealthy diet and lifecycle are the major reason for getting overweight. This issue of maintaining a proper body structure has taken a major concern of UK health professionals mostly in the case of children. According to one survey, only 7% of children or teenager thinks that they are having a perfect body size and weight. More than 34% of the teenagers replied in the survey questionnaire that they are having overweight. They think they are too fat in comparison to children of their age and this is why they are having confidence issues(Zembic *et al.* 2021, p. e218505).

Adults are also facing the same issue due to excessive weight gaining. However, in order to prevent obesity media can play a significant role. Media contributes the factors that help teens and adults to maintain proper body weight and healthy social lives. This also helps them to avoid a sedentary lifestyle.

Obesity and NHS

The bigger strain on the NHS is classifying obesity. It is associated with bariatric surgery or metabolic surgery. According to the report people around 40 to 50 years olds are getting admitted for doing the weight loss surgery.

Normal and Abnormal Factors of Obesity

Campaigners of body positivity argue for looking at the drawbacks of the issues. According to them, obesity is the new 'normal' weight and currently, healthy BMI is representing the factors of being underweight.

However, the abnormal fact is associated with major health issues linked to it such as several cancers, type 2 diabetes, and heart disease. Research UK recently explains that more than 40% of cancer cases can be found due to being overweight.

Individual care planning and Diabetic

Making an individual care plan is associated with structured education. This helps empower the people with obesity to make a healthy chart to manage their activities of daily life. Care planning is considered as the process that guides people to actively participate in making effective decisions(Wright, 2021, p.212). It also helps them to understand the techniques for mitigating the issues with obesity. It offers people obesity achieve optimum health care plan with the help of an approach of partnership with the health professionals. This helps them to learn more about the disease and its consequences, ways of managing it in the future, and coping up with their regular lives.

Care Planning Model

The national obesity care planning working groups have been established as a model for making effective care plans depending on the targeted vision in the obesity NSF. Matrix report for good care planning is also associated with it along with long-term conditions implemented

by the NHS Modernisation Agency. The model highlighted in the research has been developed depending on the case study of clinical practice, psychology. It also depends on the education process that is applied for negotiations as well shared participation in decision-making between the obese patients and healthcare professionals. Family members, relatives, or career planning also get included in this process(Peters *et al.* 2021, p.258).

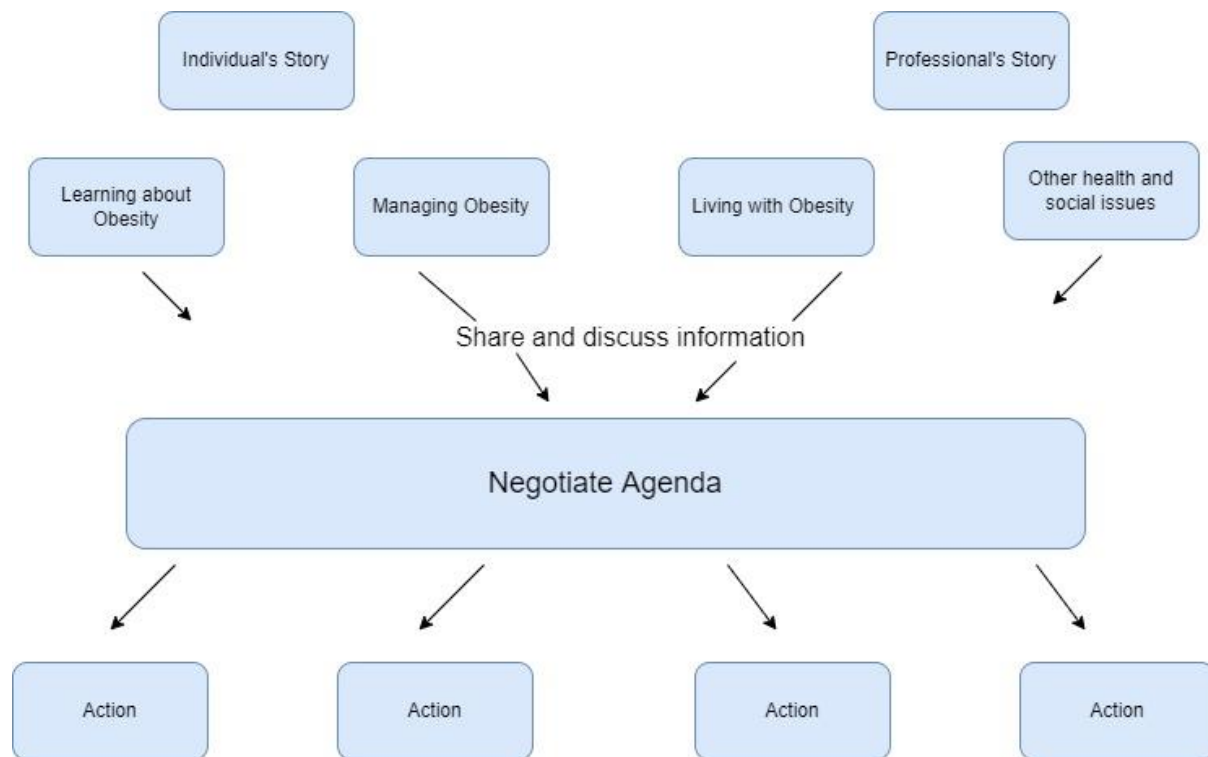


Figure 5: Care Planning Model

(Source: Self-created)

Risk during Pandemic

Obesity is a costly chronic and serious disease. The risk of affecting the covid-19 virus gets high with the people who are having serious issues of obesity. According to the report of Public Health England (PHE), people with overweight and obesity in the UK, have a high risk of severe illness as well as death from the covid-19 virus(Christensen *et al.* 2021, p.2). The international evidence is highlighting the areas that corona virus over obesity increases the chances of admitting in the hospitals, ICU and facing death as they are not having proper immunity to fight back. However, the current evidence is not showing any death risk for the

obese. Health professionals are recommending maintaining a healthy BMI as obese people highly tend to affect by the virus (gov.uk, 2022).

According to this case study, it can be observed that people with a BMI of 30-40 have a death risk of around 42%. On the other hand, people with a BMI rate over average have the maximum rate of death in comparison to the people who are having a healthy BMI(Balwan *et al.* 2021, p.43).

According to the records of UK healthcare, more than 60% of adults of age 55 to 74, in the United Kingdom are having excess weight, mainly those people living in deprived areas of the UK. However, this case study also surveyed that UK minority ethnic groups such as black, Asian, and others are severely affected due to this pandemic virus(Abbott *et al.* 2021, p.494).

Being overweight can affect the respiratory system as well as affect the immune and inflammatory functions of the human body. This influences the people to give a response to the increasing infection in the body. It also tends to increase vulnerability for the major symptoms of the Covid-19 virus. The study also highlighted that increasing awareness and supporting people can help people to maintain healthy body weight. It is effective to reduce the severe impact of the virus mainly for the vulnerable groups who are majorly affected by the covid-19 virus due to obesity (gov.uk, 2022).

Conclusion and Recommendation

Conclusion

Obesity has become a major issue among the children and adults of the UK. The report has been developed mainly to increase awareness among the people especially at the time of the pandemic. It is observed that people with obesity have a severe risk of getting highly affected by the corona virus in comparison to the person having a healthy body weight. The increase of self-awareness through media awareness among teens and adults can be increased so that they can also avoid the associated risk of other diseases. However, healthcare professionals need to make individual plans for preventing the issue.

Recommendation

To get a healthy life and issues of being over weighted people can follow below-mentioned elements–

- Being physically active and maintaining a proper diet chart
- Making a personal development plan after consulting with the health professionals
- Maintaining a healthy lifecycle
- Taking care of the safety precaution to avoid getting affected by the Covid-19 virus.

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Appendix: Survey Questionnaire

1. Who are getting depressed due to obesity?
 - a) 15 years
 - b) 18 years
 - c) 45 years
 - d) Above 50
2. What are the main causes of Obesity?
 - a) Over eating
 - b) Unhealthy diet
 - c) Unhealthy life
 - d) Wrong sleeping cycle
3. Do you know the consequences?
 - a) Yes
 - b) No
4. Are you following any care plan?
 - a) Yes
 - b) No
5. Are you following the instruction of your Health professionals?
 - a) Yes
 - b) No

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 PATIENT A.....

Date of Birth 20/12/1963

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 ..YES.....

BP 130 / 85

Height 6FT

Weight 230LBS

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 | ☐ |

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 | ☐ |

.....

Practice Use Only

- | | |
|----------------------------|-------------------------------------|
| Health Education Alcohol | ☒ |
| Alcohol Brief Intervention | ☒ |