

22894551 - Question 5 - An Apple a Day: Hack your Health

Charisa Amorie Geyer^a

^a*Stellenbosch University, Cape Town, South Africa*

1. Slide 1: Intro

Taking care of one's health is crucial because it impacts overall well-being, including physical, mental, and emotional health, which in turn affects daily life, productivity, and longevity. Good health allows individuals to function optimally, cope with stress, and enjoy a higher quality of life.

2. Slide 2: What is BMR?

Basal metabolic rate is the speed at which your body performs basic metabolic functions. It is the rate at which your body burns calories while at rest, performing essential functions like breathing and circulation. It represents the minimum number of calories needed to keep your body functioning at a basic level. Essentially, it's the energy your body uses just to stay alive when you're not actively doing anything.

3. Slide 3: BMR threshold

This threshold is calculated (differently for males and female). It consists of a metric similar to BMI, where you take a transformed value of your height, weight and activity levels to come to a factor. It is sometimes calculated to see how many calories one should consume to maintain your current weight.

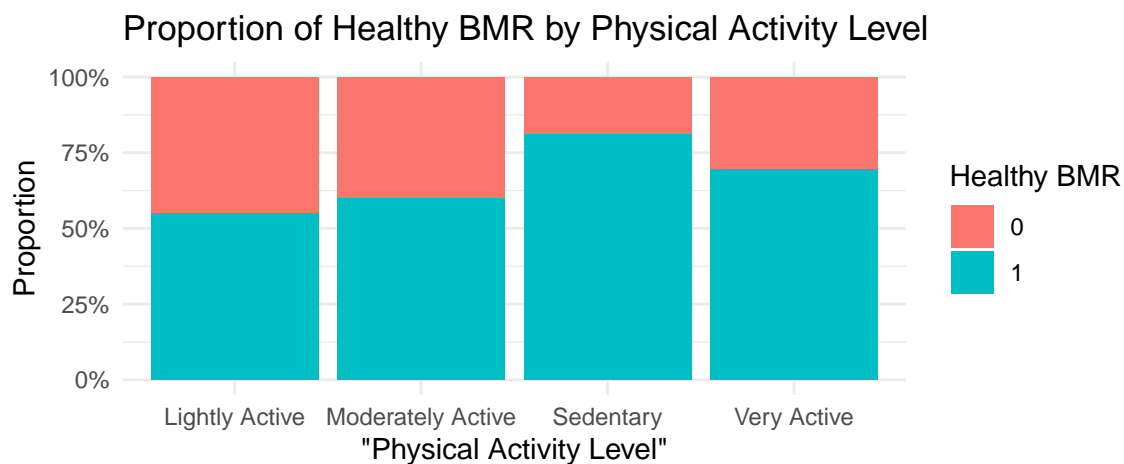
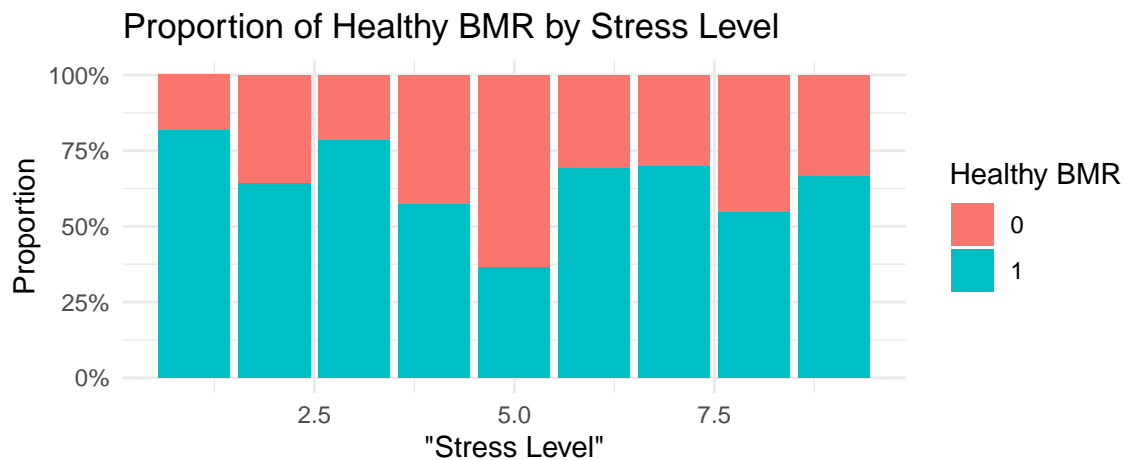
4. Slide 4: Determinants of Health

- Age -> older people have slower metabolisms

- Muscle mass -> muscles burn calories
- Body size -> having bigger organs requires more energy to keep you alive
- Gender -> Men and Women have different bodily functions and hormone levels
- Physical Activity -> strenuous activity requires energy
- Diet -> macronutrient intake makes a difference, more than just calories

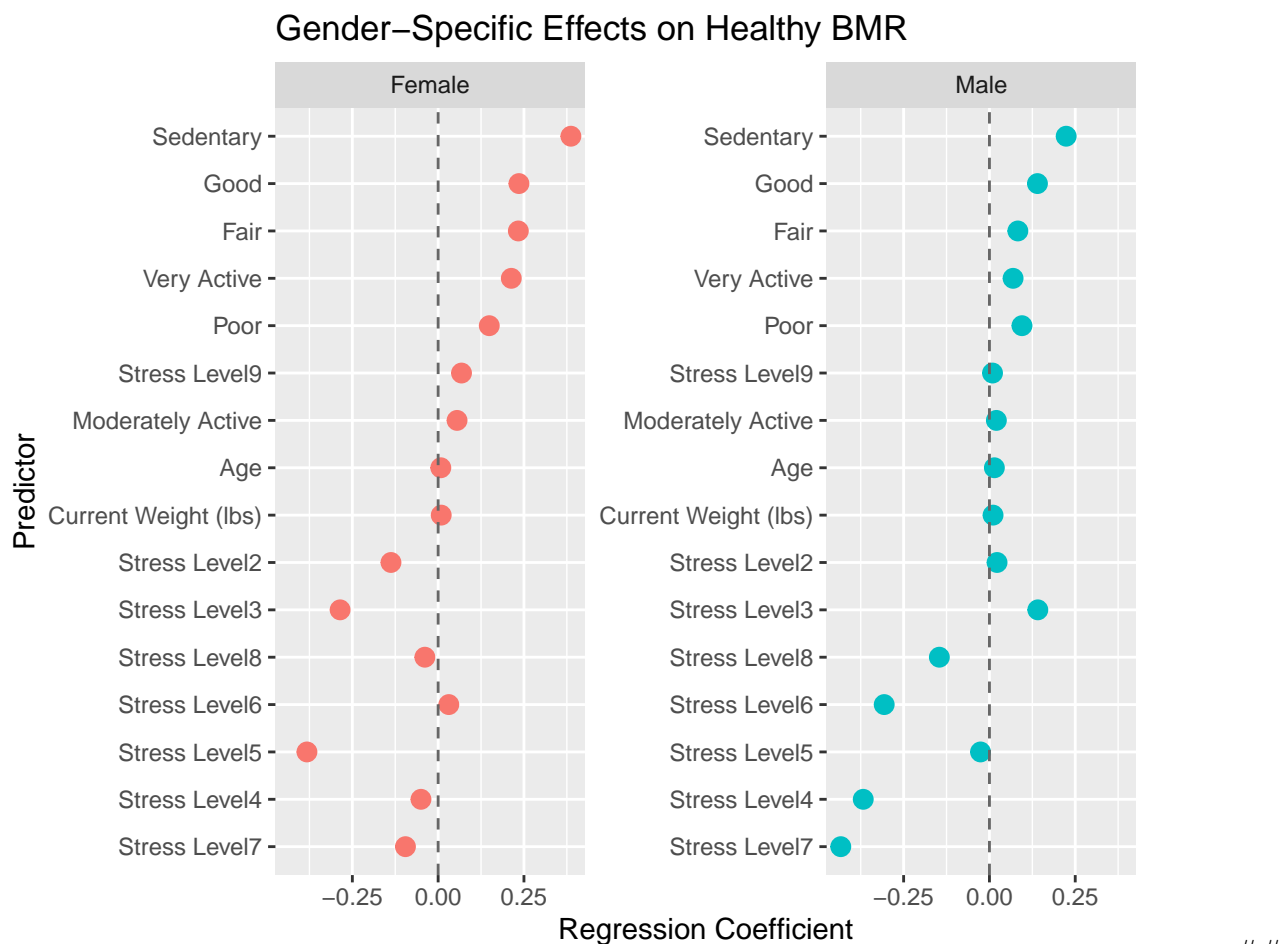
5. Silde 5: Who is healthy

We can see here, that in this dataset of persons between 20 and 60, the activity levels indicate an unexpected result. Further, stress levels are also not following a clear trend. This is indicative of another underlying factor determining the health.



6. Slide 6: LPM results

Men and women experience different effects. Remember that an LPM measures effects relative to a baseline category, which in this case is low stress levels with excellent sleep and no activity. We can see clearly (as clearly as LPM results can be), that excellent sleep is always better, more moderate activity is acceptable and stress levels have varying effects.



What's next? * sleep more * exercise less * stop stressing about your stress levels! This is of course a joke, and data can always be wrangled in a way to fit a narrative. So the lesson to learn is: DON'T BELIEVE EVERYTHING THAT YOU SEE! Especially not if it comes from an amateur analyst!

6.1. Greetings

Thanks for listening and see you next time.