SLEEP, HEALTH & LIFESTYLE DATA

Prepared by:- Suvrat Singh

Tools used:- MS-Excel (Pivot tables, Charts, Slicers), MS-Word

SUMMARY

This report analyzes the sleep duration, sleep quality, stress level, lifestyle activity, occupation, age group & BMI using an interactive EXCEL DASHBOARD.

OBJECTIVE

To identify key behavioral & factors influencing sleep quality & stress levels.

The analysis also reveals that **highly active individual report better average sleep duration** while **higher stress levels welcomes sleep disorders.** Occupation & age factor also influences the sleeping patterns.

These insights can support targeted wellness programs & lifestyle improvement strategies.

KEY BUSINESS QUESTION

1) Does longer sleep duration means better sleep quality?

2) Lifestyle of various gender & their average sleep duration.

3) BMI related to various lifestyle.

4) Which stress levels are associated with sleep disorders?

5) Do occupation and age impact sleep quality?

DATASET OVERVIEW

Source – Survey based sleep & lifestyle dataset

Key attributes

i) Gender

ii) Age group

iii) Occupation

iv) Sleep Duration

v) Quality of sleep

vi) Physical activity level

vii) Stress level

viii) Blood pressure

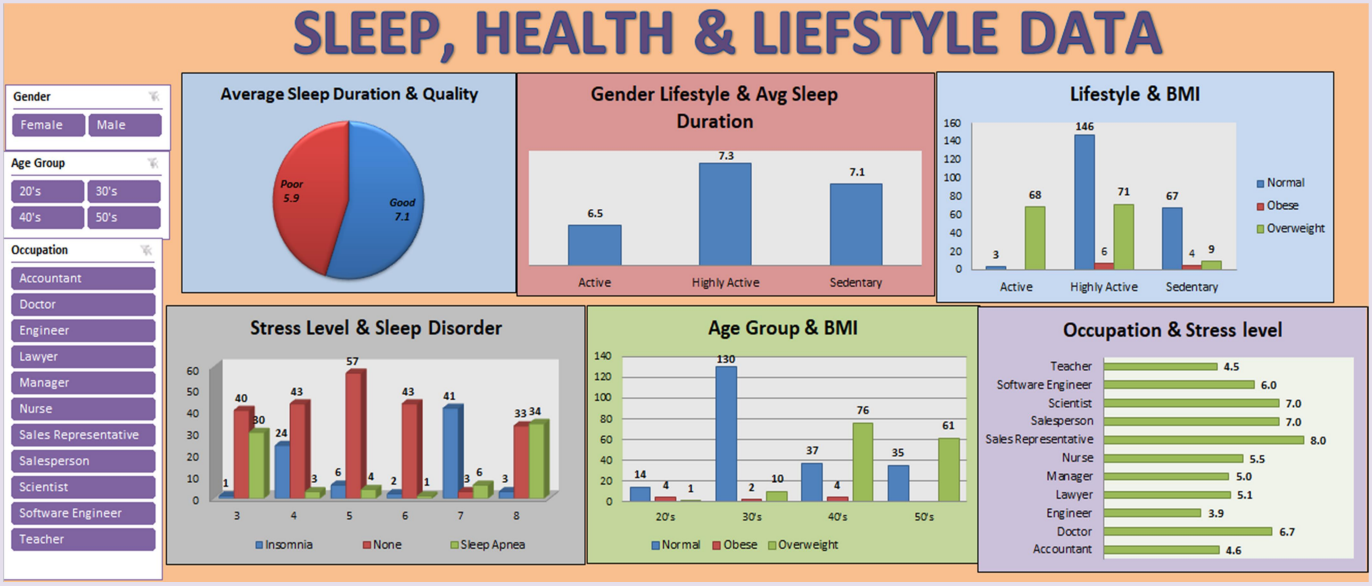
ix) Heart rate

x) Daily steps

xi) Sleep disorder

Used **EXCEL** to transform data and creating related columns like ***age group, Sleep duration group, Quality group, PAL Range, Lifestyle, Steps group***.

DASHBOARD OVERVIEW



Dashboard allows to filter insights by ***gender, age group & occupation*** and helps in ***comparing & analyzing*** the impact of different criteria on sleeping pattern, sleep disorder and quality of sleep.

KEY INSIGHT AND ANALYSIS

INSIGHT 1: Sleep duration and quality

i) Individual sleeping for **minimum 6 hours** get ***good quality*** of sleep.

ii) Same has been observed in all ***age groups*** & for **both *male & female***.

INSIGHT 2: Lifestyle & Average sleep duration

i) Relation of sleeping hours & lifestyle is **always flexible** as it depends upon person to person, however **increase of physical activity *may* increase sleep duration**.

ii) People who are ***HIGHLY ACTIVE*** *(exercising for minimum 2 hours/day)* have *avg. sleep of* ***7.3 hours***

iii) People who are ***ACTIVE*** *(exercising for minimum1.7 hours/day)* have *avg. sleep of* ***6.5 hours***

iv) People who have ***SEDENTARY LIFESTYLE*** *(exercising for maximum 1.7 hours/day)* have *avg. sleep of* ***7.1 hours***

INSIGHT 3: Lifestyle & BMI

- **BMI** (Body Mass Index) is **impacted by lifestyle** as observed from the dashboard.

Male

i) Majority of ***HIGHLY ACTIVE*** *men (age group 20's & 30's)* were found to have ***normal BMI***

ii) However for men in ***age group of 40's,*** both ***overweight & normal*** *BMI were approx.* ***same in number****.*

Female

i) BMI was **majorly** ***normal*** for age group of **20's & 30's**.

ii) **Majority** of women (*age group* ***40's & 50's****)* falled in category of ***overweight***.

INSIGHT 4: Stress level & Sleep disorder

Male

i) **Majority** of men in age group **20's & 30's** found to have **no sleep disorder**, irrespective of stress level.

ii) Men in **age group 40's**, ***high stress level*** *brings* ***more sleep disorder****.*

Female

i) For age group 20's & 30's **no major sleep disorder** found even with increase of stress level.

ii) Women in age group **40's & 50's** suffered from **sleep disorder** *even with* ***minor stress level****.*

INSIGHT 5: Age Group & BMI

Male

i) Overweight men **majorly** found in **40's age group**. **Lower age group** have **no complexity** regarding BMI as mostly fall in the category of *normal* and **few in *obese* category**.

Female

i) Overweight women **majorly** found **in 40's & 50's age group**. Concluding that **with increase in age, more women face BMI related issues such as *obese & overweight***.

ii) Possibly due to the ***hormonal changes*** that occur in **female's body** after certain age, hence women are found to face ***health issues*** after certain age ***despite*** having ***healthy & sedentary lifestyle***.

INSIGHT 6: Occupation & Stress Level

i) *Highest* stress level found in **men** involved in occupation of ***sales representative*** & for **women** *highest* in ***scientist*** occupation.

ii) *Lowest* stress level for **men** in occupation of ***Engineer*** & for **women** in occupation of ***Engineer & Doctor***.

CONCLUSION & POSSIBLE REASONS

i) Sleep duration & quality is not a guaranteed result of *ACTIVE LIFESTYLE* as *other factors* also influence it.

Example:- A person with *sedentary lifestyle* works a hectic schedule throughout the day, hence sleeps for longer duration and gets a good sleep quality.

ii) *Food Habits* influences a person's BMI, so a person might be *HIGHLY ACTIVE* but eats *junk food* due to his *OCCUPATION.*

Example:- Sales Representative & other field jobs

iii) Stress level is *directly proportional* to sleep quality, hence resulting in sleep disorders & it is not found in *young age group* as they are more involved in various activities (*Big friend circle, vacations, parties etc.)* hence less impact of stress level is seen in them

iv) As an individual gets older, his/her body functions in a different way (*slow digestion, diseases etc.)* hence impacting a person's BMI and overall health. Since health gets impacted it raises *cortisol level* (STRESS HORMONE) hence increasing *stress* & impacting *sleep & it's quality.*

POSSIBLE SOLUTIONS

i) *Small, Achievable & Practical* work targets should be set by companies in orders to let the employee balance his/her work & health.

ii) More *Healthy Food Options* should be offered in the *workspace.*

iii) More *Health Workers* should be hire by the government & *home drives* should be carried out by them, inspecting and giving appropriate *free/low cost medicines* to the beneficiaries.

iv) Special focus & awareness drive be done for the *women* who are reaching *old age*.

v) *Consultation facility* should be provided to the employees.