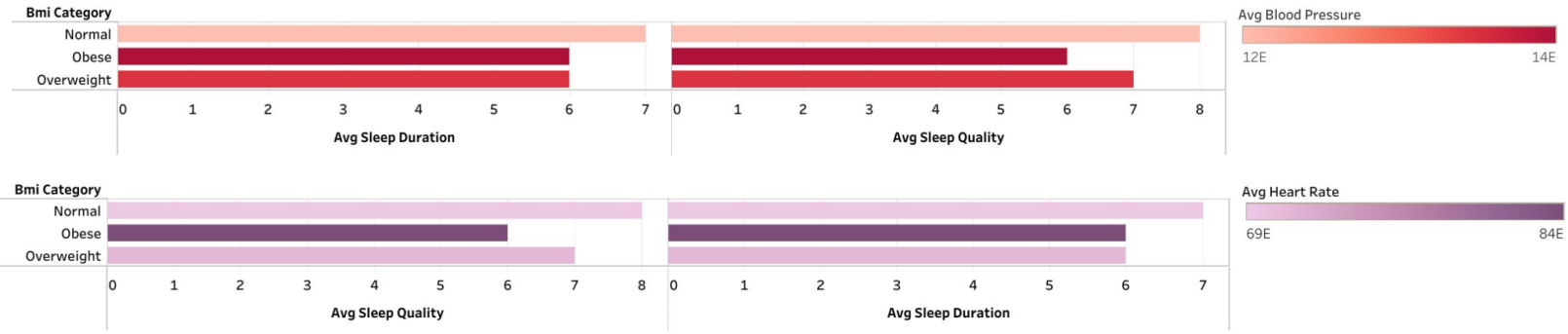
-- Dataset: Sleep Health and Lifestyle
-- Source: Kaggle

-- Compare the sleep patterns and health metrics of individuals in different BMI categories

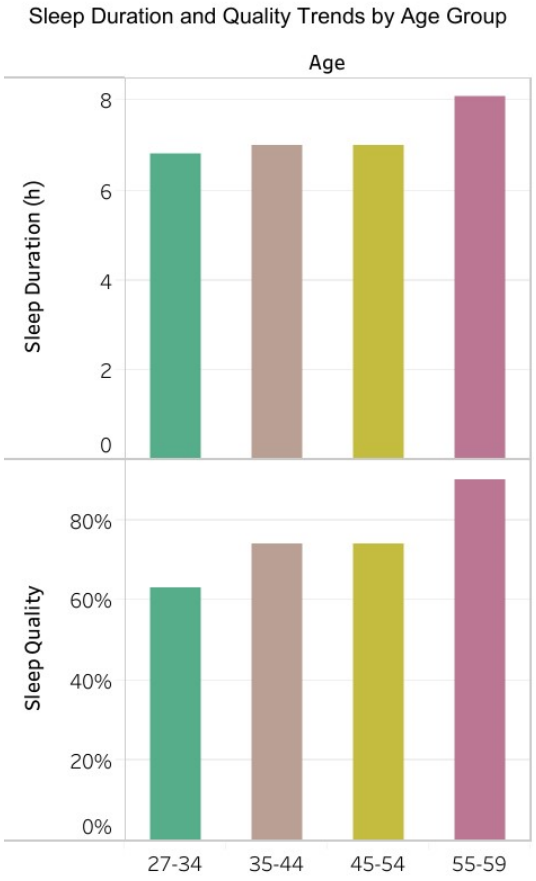
```sql
SELECT
    bmi_category,
    AVG(sleep_duration) AS avg_sleep_duration,
    AVG(quality_of_sleep) AS avg_sleep_quality,
    AVG(blood_pressure) AS avg_blood_pressure,
    AVG(heart_rate) AS avg_heart_rate,
    AVG(daily_steps) AS avg_daily_steps
FROM
    `swift-temple-392018.Sleep_health_lifestyle.Cleaned_data`
GROUP BY
    bmi_category
ORDER BY
    Bmi_category;
```



-- Are there any trends in sleep duration or quality over different age groups?

```sql
SELECT
    Age,
    AVG(sleep_duration) AS avg_sleep_duration,
    (AVG(quality_of_sleep) / 10) * 100 AS avg_sleep_quality_percentage
FROM
    (
        SELECT
            CASE
                WHEN age BETWEEN 27 AND 34 THEN '27-34'
                WHEN age BETWEEN 35 AND 44 THEN '35-44'
                WHEN age BETWEEN 45 AND 54 THEN '45-54'
                WHEN age BETWEEN 55 AND 59 THEN '55-59'
```

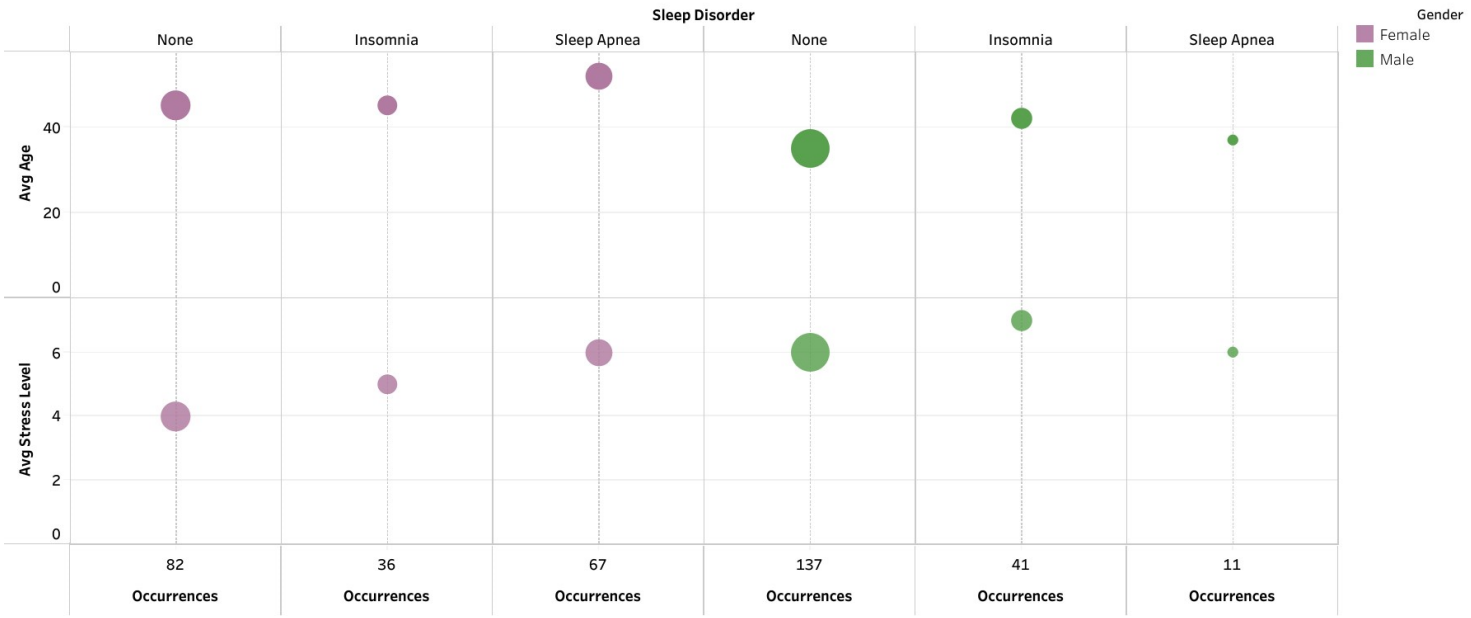
```
            ELSE '60+'
        END AS Age,
        sleep_duration,
        quality_of_sleep
    FROM
        `swift-temple-392018.Sleep_health_lifestyle.Cleaned_data`
) AS age_grouped_data
GROUP BY
    Age
ORDER BY
    Age
```



-- Are there any relationships between sleep disorders and other variables like age, gender, or stress level?

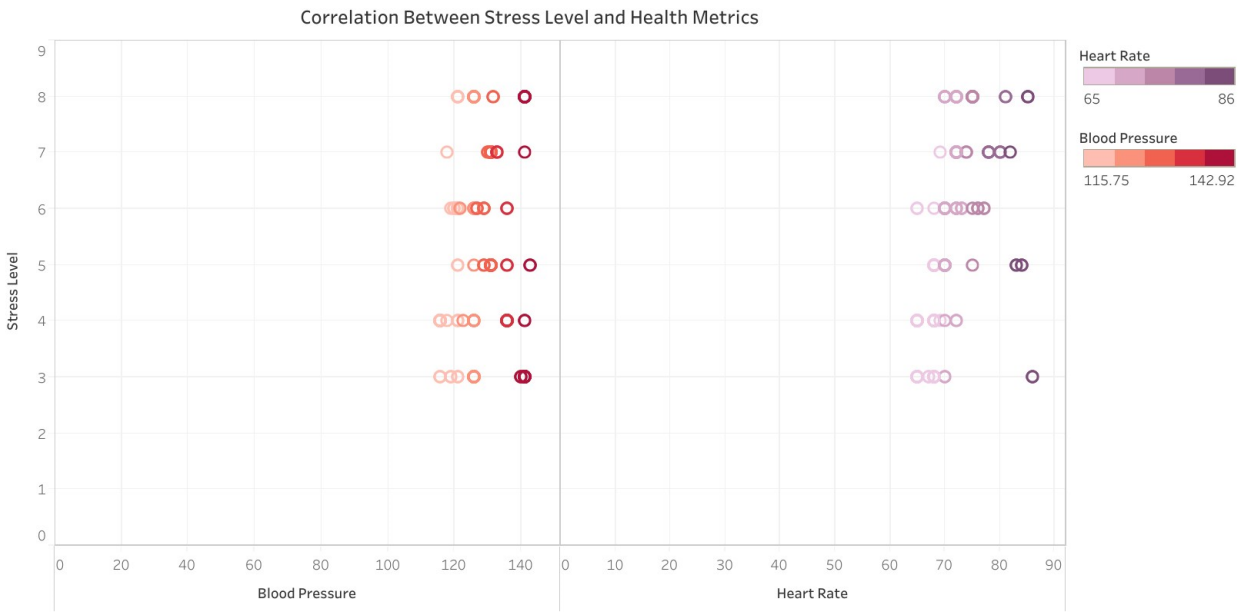
```
SELECT
    sleep_disorder,
    COUNT(*) AS count_of_occurrences,
    AVG(age) AS avg_age,
    gender,
    AVG(stress_level) AS avg_stress_level
FROM
```

```
    `swift-temple-392018.Sleep_health_lifestyle.Cleaned_data`
GROUP BY
    sleep_disorder, gender
ORDER BY
    sleep_disorder, gender;
```



-- Does stress level correlate with health metrics?

```
SELECT
    CORR(stress_level, blood_pressure)*100 AS correlation_stress_blood_pressure,
    CORR(stress_level, heart_rate)*100 AS correlation_stress_heart_rate,
    CORR(stress_level, daily_steps)*100 AS correlation_stress_daily_steps
FROM
    `swift-temple-392018.Sleep_health_lifestyle.Cleaned_data`
```


Correlation Between Stress Level and Health Metrics
Stress Level
9
8
7
6
5
4
3
2
1
0
0
20
40
60
80
100
120
140
Blood Pressure
0
10
20
30
40
50
60
70
80
90
Heart Rate
Heart Rate
65
86
Blood Pressure
115.75
142.92