Topic

OPINION OF THE STUDENTS, RESIDENT AT MOHAMMAD HABIB HALL, AMU, ALIGARH, INDIA, ON HABITS RELATED TO HEALTH.

SUBMITTED BY

MOHD DANISH	(2015 STB 023)
MOHAMMAD HASSAN	(2016 STB 035)
ABDUL RAHMAN TALHA	(2016 STB 036)
MOHD MURSALEEN	(2016 STB 047)
MOHAMMAD FARHAN	(2016 STB 053)
MOHAMMAD OWAIS	(2016 STB 054)
LOVEKESH KUMAR SINGH	(2016 STB 105)
AALISHAN AHMAD	(2016 STB 115)

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HEALTH & HYGIENE

- **Health**, is defined by the World Health Organization (WHO), as a state of complete physical, mental and social well-being.

- According to the (WHO), the main determinants of health include the social and economic environment, the physical environment and the person's individual characteristics and behaviours.

- **Hygiene** is a set of practices performed to preserve health.

- According to the (WHO), Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases.

- Hygiene refers to the practices that prevent spread of disease-causing organisms.

PARAMETERS OF HEALTH

- BMI(BODY MASS INDEX)
- SLEEP
- EXERCISE
- ENVIRONMENT

BODY MASS INDEX

▶ The **BMI** was invented by Belgian polymath Adolphe Quetelet in the 1800s, and consequently is sometimes known as the **Quetelet Index.**

▶ The Body Mass Index(BMI) is a physical measurement used to assess an individual's total amount of body fat.

▶ The BMI is calculated by dividing your weight in kilograms (kg) by your height in metres squared (m^2). It is expressed as kg/m^2.

$$BMI = \frac{Weight}{height}$$

THE FOLLOWING TABLE GIVE US CUT-OFF VALUES

BMI	Classification
< 18.5	Underweight
18.5–24.9	Healthy weight
25.0–29.9	Overweight
30.0–34.9	Obese Class 1
35.0–39.9	Obese Class 2
> 40.0	Obese Class 3

SLEEP

- The natural, easily reversible periodic state of many living things that is marked by the absence of wakefulness.

- Doctors recommend to take sleep 6-8 hours in a day to keep your body and mind healthy.

- (WHO) gave report last year that in USA, most of the people are suffering from lack of sleep which leads to Hypertension, Insomnia, depression and migraine problem.

RECOMMENDED SLEEP DURATIONS

Age and condition	Sleep Needs
Newborns (0–3 months)	14 to 17 hours
Infants (4–11 months)	12 to 15 hours
Toddlers (1–2 years)	11 to 14 hours
Preschoolers (3–4 years)	10 to 13 hours
School-age children (5–12 years)	9 to 11 hours
Teenagers (13–17 years)	8 to 10 hours
Adults (18–64 years)	7 to 9 hours
Older Adults (65 years and over)	7 to 8 hours

EXERCISE

- Exercise is an bodily activity that enhances or maintains physical fitness and overall health and wellness.

- It is performed for various reasons, including increasing growth and development, preventing aging strengthning muscles and the cardiovascular system.

- Some studies indicate that exercise may increase life expectancy and the overall quality of life.

ENVIRONMENT

▶ Humans interact with the environment constantly.

▶ These interactions affect quality of life, years of healthy life lived, and health disparities.

▶ The World Health Organization (WHO) defines environment, as it relates to health, as "all the physical, chemical, and biological factors external to a person, and all the related behaviours."

SURVEY METHODOLOGY STRATIFIED RANDOM SAMPLING

ADVANTAGES OF STRATIFIED SAMPLING

➢ Reduces cost as compared to census and also reduces time.

➢ Administrative convenience as compared to census.

➢ Greater accuracy of results.

➢ Greater scope of results

POPULATION

In **survey the population comprises of the UG, PG and Research scholar of Mohammad Habib Hall which is situated in Aligarh Muslim University, Aligarh (India).**

In Mohammad Habib Hall (M.H. Hall) there are 3 hostels named:

- **Chakravarty hostel**
- **Umaruddin hostel**
- **Haider khan**

SAMPLING FRAME

- List of the students of all the hostels of M.H. Hall under study was used as sampling frame for the sample selection.

- The list was updated by visiting the individual hostels.

- Finally corrected list of all the students under study was used as workable sampling frame for the sample selection.

SAMPLING TECHNIQUE

Stratified sampling was used with the following strata :-

➤ **Undergraduate Students (such as BSc/BCA).**

➤ **Post-graduate & Professional course students (such as M.Sc./ MCA/MFC).**

➤ **Research scholars (students of Ph.D).**

Sample Size

➢ Due to constraint time we used ad-hoc sample

i.e. 19.78% ≈ 20% of the population, was used.

➢ Total populaton size, = 644

20% of ≈ 128

➢ Strata-wise sample size :

Strata		=*
UG	294	59
PG	207	41
Ph.D	141	28
Total	644	128

It consists of 27 questions seeking the views of respondents on the topic Opinion of the students about Habits related to health.

Q.1 Where do you take your meal?

Q.2.What extra diet do you take?

Q.3.How many liter in 24 hours you drink water?

Q.4.Water you drink.

Q.5.How many times do you smoke?

Q.6. Your Height (in cm) is.

Q.7.State your Weight in kg is_____.

Q.8. Number of hours spent on sleep in 24 hours.

Q.9. Time to go bed in the night

Q.10. Is there any genetic sleep problems?

Q.11. Do you Consume Tea & Coffee?

Q.12.Are you suffering from Sleep apnea/Snoring/problem in breathing?

Q.13. People who suffer from inconsistency in sleep is due to.

Q.14.Your time spent on study in 24 hours is.

Q.15. Best time of study is.

Q.16. Number of hours spent on electronic gadgets(Mobile, I-pad, Computer)

Q.17. Do you suffer from headache?

Q.18. Have you ever had any of the following?

Q.19. How frequently you took a treatment for an infection in the last one year?

Q.20. Your residential hall has good health & hygiene condition.

Q.21 Proper treatment facilities are available in the University for the students.

Q.22How you will categorize the Sanitation & Hygiene level of your hall?

Q.23. Are you sensitive to dust?

Q.24. Environment of surrounding of your room falls in the following category.

Q.25. Do you participate in sports?

Q.26. Do you exercise (Gym, Running & yoga) on a regular basis?

Q.27.How much time you spend on physical activities(e.g., sports, gym, exercise etc)

# Analysis

In the analysis of data we have used :

- Bar chart
- Pie chart
- Doughnut
- Z- Test
- Chi-Squre Test

And got some good conclusion from them.

Age And BMI

Conclusion:-

From the scatter plot between
age & BMI we came to know
that in the case of PG &Ph.D
as the age increases, BMI of
the individual also increases.
But in the case of UG there is
an inverse relationship between age &
BMI i.e., as age increase,
 BMI will decrease at a certain threshold.
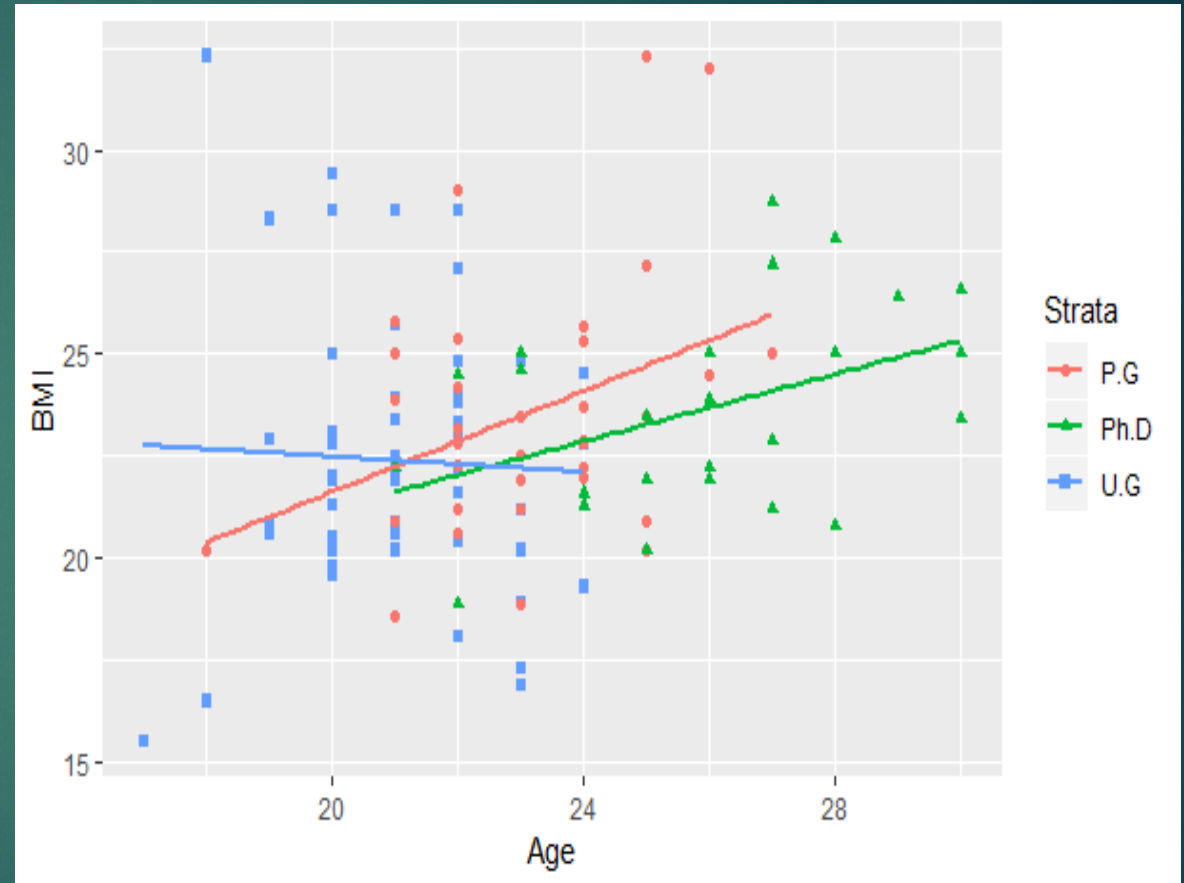
Where do you take your meal?

| Choices->	Dinning Hall only	Dinning Hall and extra diet	Tiffin service	Self cooked diet/food	NA	Total
Undergraduate	19	38	1	1	0	59
Graduate	13	26	2	0	0	41
Ph.D	5	20	1	2	0	28
Total	37	84	4	3	0	128

Way of taking food
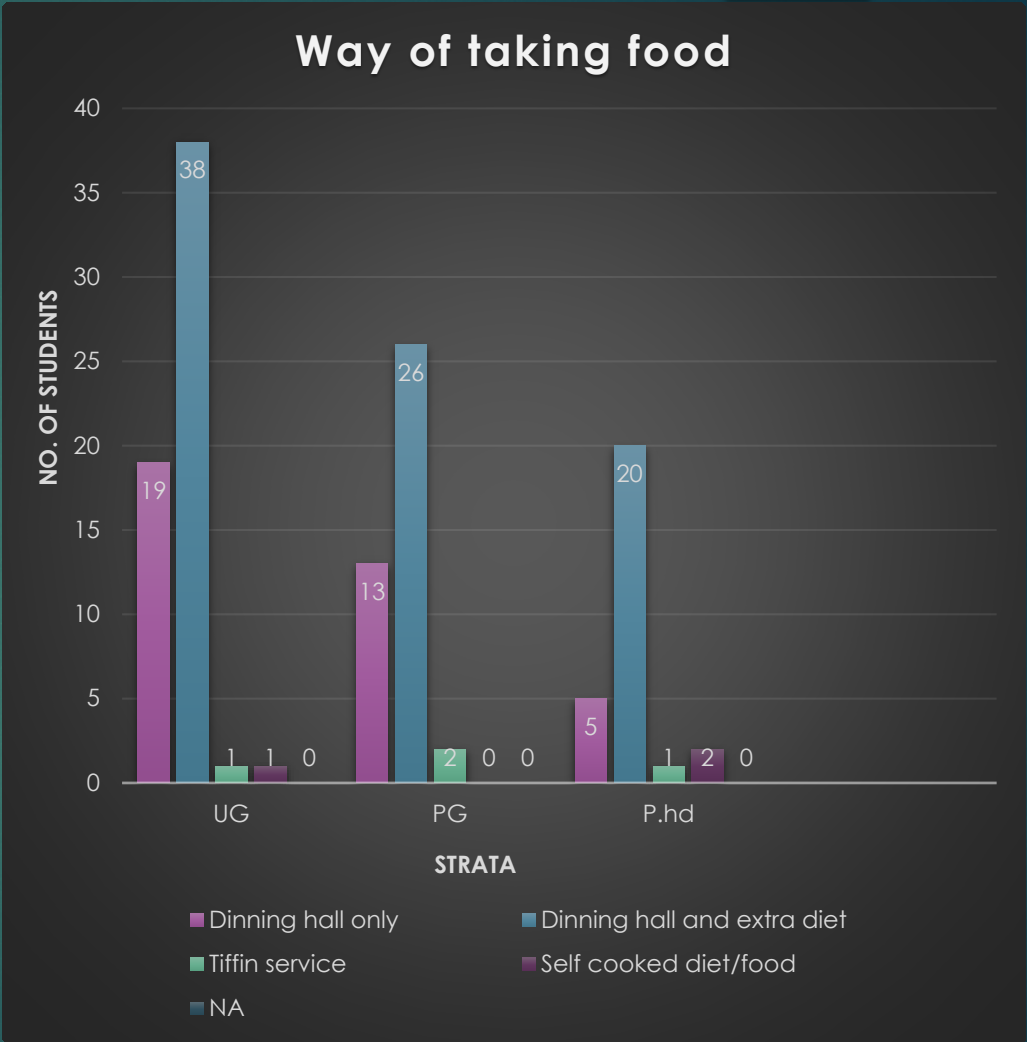
Conclusion:-The above graph shows that most of the students, 65% in total and also in each stratum, take their food in Dining Hall & have extra diet. Students who take food in Dining Hall only are much more than those who take Tiffin service & self cooked food combined,

What extra diet do you take?

| Choices->	Junk food	Fruits and energy drink	Dry fruits	None of the above	NA	Total
Undergraduate	17	33	4	4	1	59
Graduate	7	23	6	5	0	41
Ph.D	6	15	2	4	1	28
Total	30	71	12	13	2	128

Conclusion:-Most of the students in each strata and overall prefers **Fruits and energy drink** in the form of extra diet. Although some of the students also like to have **Junk food** and **Dry fruits**.

Extra diet chart
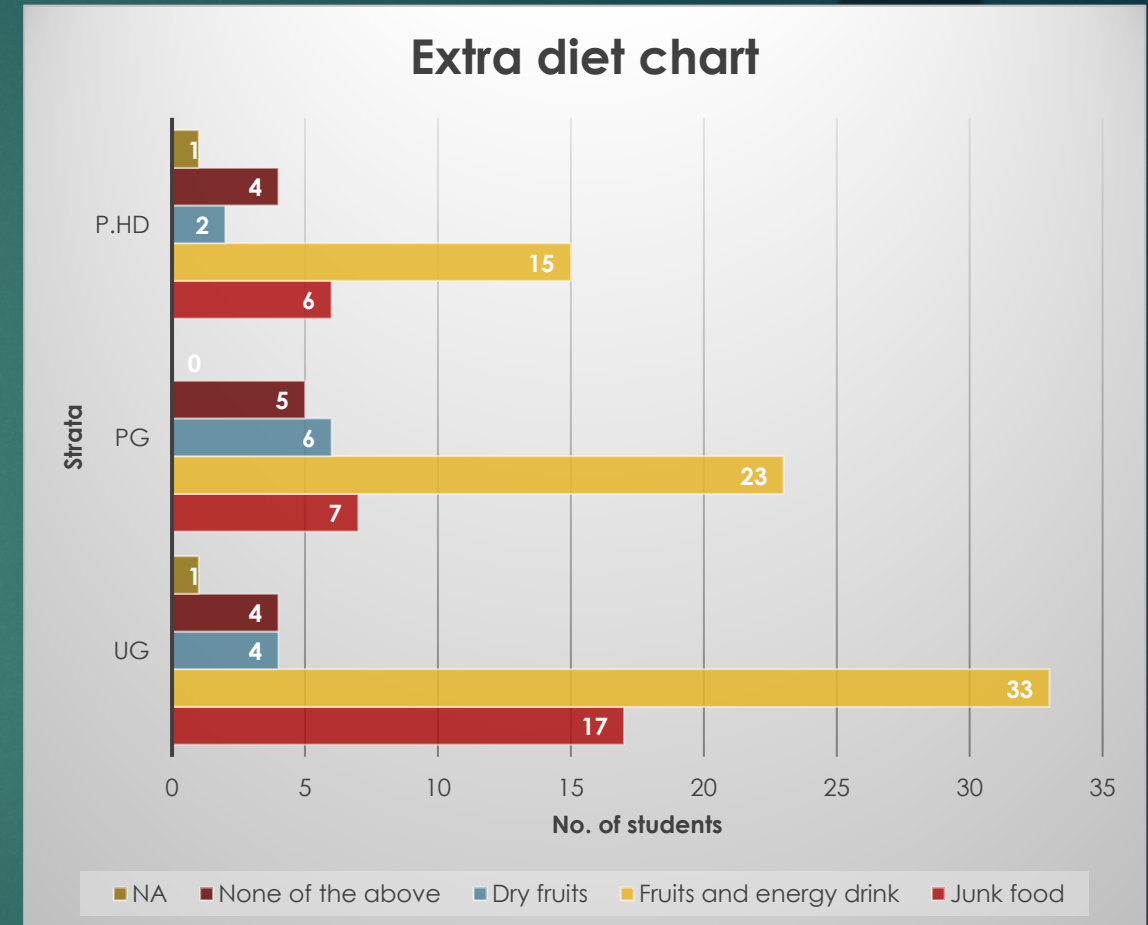
How many times do you smoke?

| Choices->	Never	Occasionally	Yes, regularly	NA	Total
Undergraduate	45	7	7	0	59
Graduate	29	9	3	0	41
Ph.D	19	4	5	0	38
Total	93	20	15	0	128

Conclusion: In UG category, most students are those who never smoke and they come under healthy category of BMI. Also in PG & Ph.D, many students are those who smoke regularly and occasionally come under healthy range of BMI.
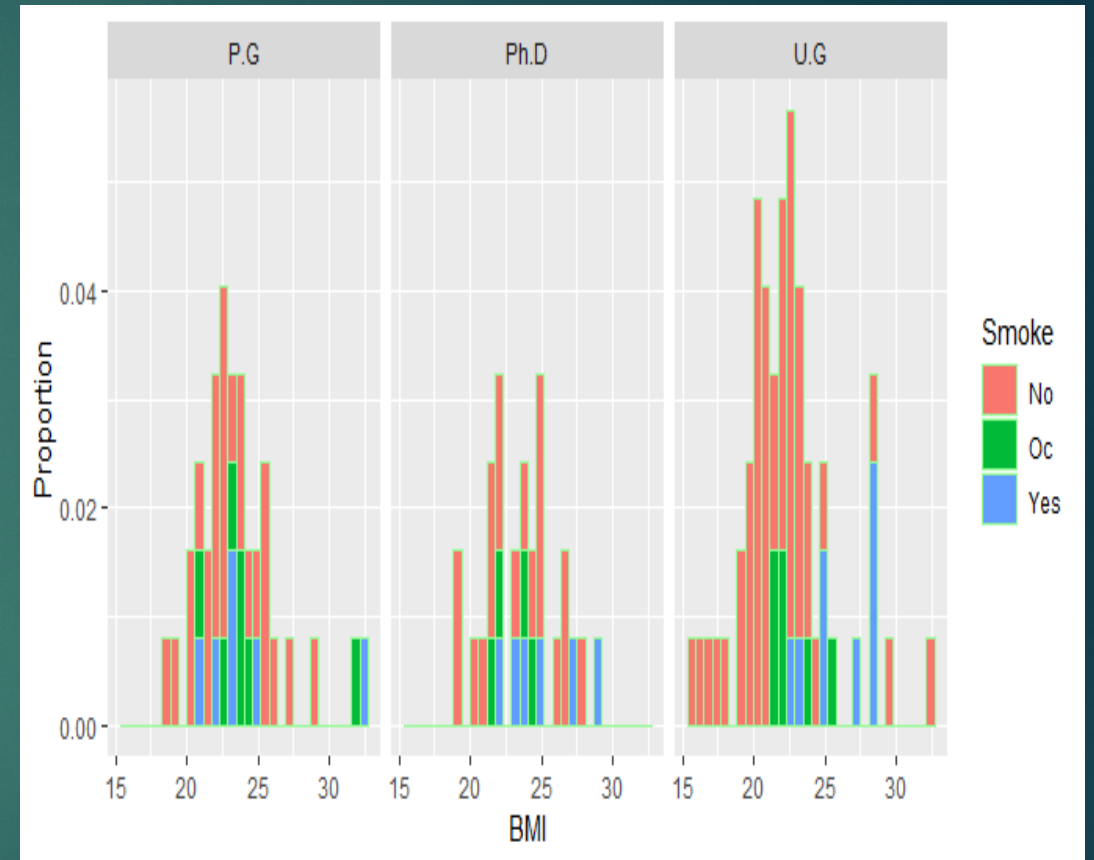
Number of hours spent on sleep in 24 hrs.

| Choices ->	4-6 hours	6-7 hours	7-8 hours	8-10 hours	NA	Total
Undergraduate	2	16	33	8	0	59
Graduate	2	18	17	3	1	41
Ph.D	3	8	14	2	1	28
Total	7	42	63	13	2	128

Conclusion: From the above strata-wise histogram, it can be concluded that students who sleep 6-8 hours in a day come under the healthy category of BMI and but there are very less students who sleep more than 8 hours and are under healthy category.
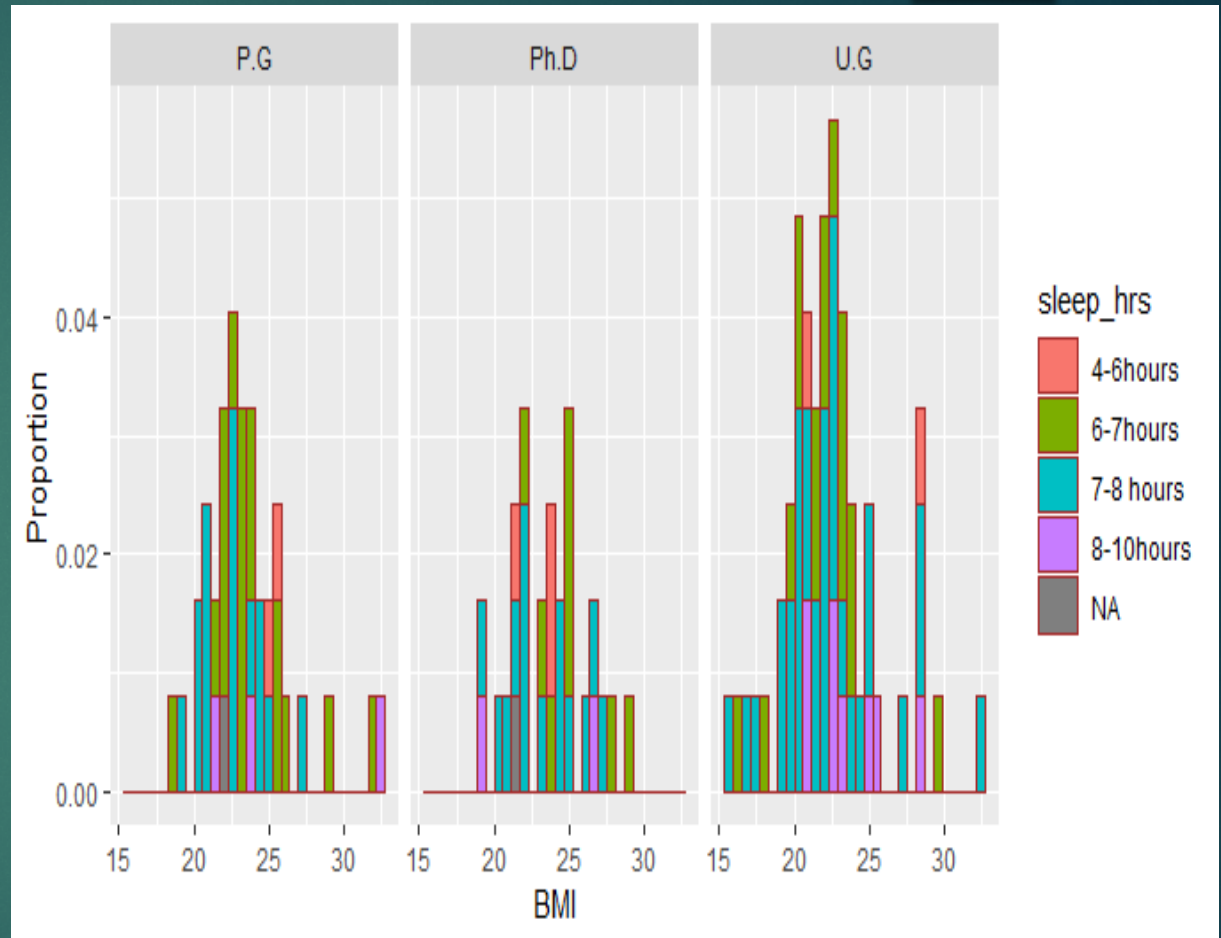
Time to go to bed in the night

| Choices ->	9.00-10.00 P.M	10.00-11.00 P.M	11.00-12.00 P.M	After 12.00 A.M	NA	Total
Undergraduate	0	3	43	12	0	59
Graduate	0	0	34	7	0	41
Ph.D	1	3	17	7	0	28
Total	1	6	94	26	0	128

Conclusion: It is obvious that most of the students who sleep between the interval 11.00 PM-12.00 AM and after 12.00 AM come under the healthy category of BMI.

There are very less proportion who sleep between 10.00-11.00 also lie in the healthy category.
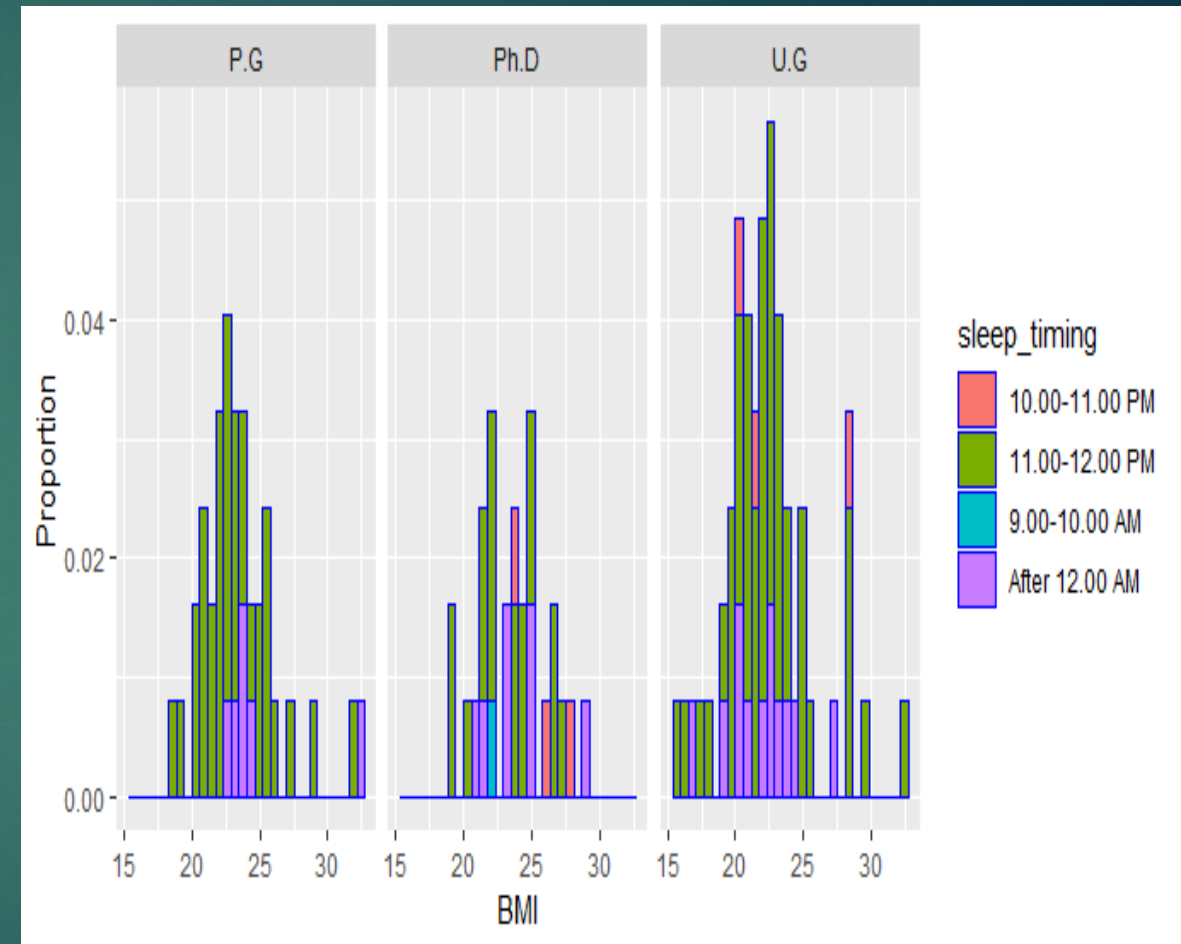
Sanitation & Hygiene level of your Hall

Choices->	Very poor	Poor	Satisfactory	Good	Excellent	NA	Total
Undergraduate	15	20	18	6	0	0	59
Graduate	12	16	7	4	0	2	41
Ph.D	7	10	9	1	0	1	28
Total	34	46	34	11	0	3	128

Conclusion: The above graph shows the 25.4%, 29.16% & 25% of UG, PG, Ph.D students respectively are stating very poor and 33.8%, 39.0%& 35.7% has chosen poor Sanitation & Hygiene level in the above stratum. No one has chosen very good, it means that the sanitation & hygiene level of Habib Hall is very vicious.

Sanitation & Hygiene level at hall
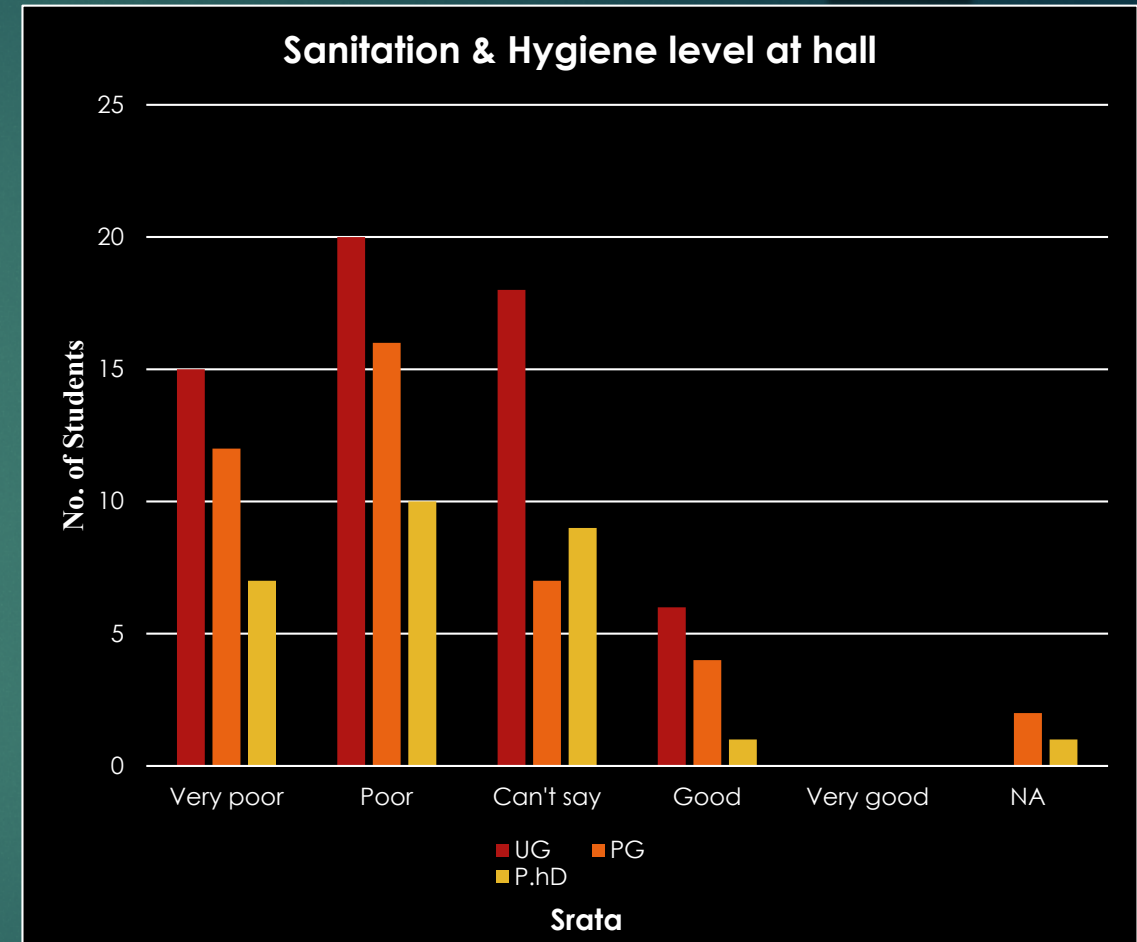
Chi-Square Testing

We applied chi-square test on Q.17 & 18 to test dependency between headache & stress depression anxiety Migraine.

Ho: There is no dependency between headache and stress, migraine Depression anxiety.

H1: There is a dependency between headache and stress, migraine Depression anxiety.

At the 5% level of significance.

Headache	Stress	Depression/Anxiety	Migraneproblem	None	Row frequency
Never	3	6	3	19	31
Occasionally	32	21	2	26	81
Frequently	7	3	2	2	14
Column frequency	42	30	7	47	126

R command for Chi-Square Test

By using R command :-

> chisq.test(M4)

X-squared = 19.357, df = 6, p-value = 0.003601

Conclusion:- Since p-value(0.003601) is less than level of significance(0.05) , we have enough evidence to reject the null hypothesis . Therefore we may conclude that there is dependency among headache , stress , migrane and depression for combined sample of UG, PG, and Ph. D. students

Z- Test

We are applied z-test to compare BMI of our sample to the population.

H0: p=0.5 (around 50% population of Habib hall lie in the healthy category of BMI)

 H1: p≠0.5 (there will be more or less students who lie in healthy category of BMI)

Conclusion: Since, the calculated value is greater than the tabulated value at 5% level of significance, therefore we reject the null hypothesis. i.e., more than half of the total students are either underweight or overweight.

RECOMMENDATIONS

- There should be a proper regular health inspection at the Hall as well as University level so as to maintain the health of students.

- There should be promotion of physical activities at the Hall level and try to spread awareness among the students about the importance of physical activities in building a better personality.

- We should try to clean our surroundings to keep ourselves neat and clean.

- Students should take healthy sleep which is 6-8 hours in a day to keep themselves healthy.

The End