

GOVERNMENT DEGREE COLLEGE, SHADNAGAR

BEST PRACTICE

CREATION OF FOOD GARDEN

Food garden is a diverse planting of edible plants that attempts to mimic the ecosystems and patterns found in nature. Food garden is all about growing different edible plants which include different types i.e. the trees, shrubs, herbs, edible roots, climbers and also twines.

Aims and Objectives:

- ❖ The main aim is to grow your own food without any use of chemical fertilizers and pesticides.
- ❖ To set an example of sustainable food production. To create awareness on methods of converting organic wastes into compost fertilizers
- ❖ Paving the way for environmentally friendly sustainable development
- ❖ To let them aware of the fact that it is necessary to live in harmony with nature with minimum care, less maintenance through sustainable agroforestry
- ❖ To produce nutritious food, provide habitat for the other wildlife and also build an healthy soil too.

Context: The college has an area of 5 acres of land, In the rainy season many weeds and bushes rise up and make the campus dirty. This has become a recurrent problem, the cleaning and dumping of solid waste has become a challenge to the college management. To get rid of the bio waste, the life sciences departments have come up with an innovative idea of conversion of solid waste into compost and at the same time making good use of it.

The Practice: After the topography of the land we collectively resolved our land should be categorized into a playground, vegetable garden, flower garden, fruit garden and wild forest zone. To implement this we created a nursery and compost pit.

Firstly the solid waste is collected and segregated into bio and non-bio degradable wastes, and this work is done by the NSS volunteers, remaining girls and boys also take up this work when required. After segregating the biodegradable waste, it is dumped into the vermi compost pit which is meant for creating compost. Some rotten vegetables are kept in the pit layer by layer and a layer of soil is covered. Finally earthworms are spread on it and covered with soil. Everyday students sprinkle the water to retain moisture. After a month the compost is ready to use. The compost, so obtained, is used for the vegetable plants which are grown in the garden inside. This is a low cost practice except pit digging and purchase

of earthworms. Solid waste dumping, covering with soil, and sprinkling the water are the works regularly done by the students. The earthworms lay eggs and the eggs are turned into new earthworms, the process continues. The college is known for this best practice as it has set a model of ecological balance. The college is privileged to have this campus.

Problems encountered and resources required:

The campus has the growth of large number of weeds and so , the students of NSS found it difficult to cut the weeds from time to time. The removal of weeds was a challenge for us. Despite that here the soil is alkaline in nature which is not more supportive to the growth of plants, hence the acquisition of soil was another task. Raising nursery, purchase of earthworms, some digging works are linked with funds, the removal of weeds in the wide campus and beautification of the campus with a variety of plants is a bigger challenge.

Evidence of Success

We grew a lot of vegetables within a short time. We have grown vegetables like tomato, brinjal, bitter gourd, ridged gourd, sword beans, cluster beans, green chillies and also some green veggies like spinach, Amaranthus, Hibiscus cannabinus, coriandrum , Mentha, pudina. We have also grown tubers like potatoes, sweet potatoes corms like colocasia, rhizomes like ginger, bulbs like onions, garlic. In addition to these we have grown some medicinal plants like Nalleru, tulsi, turmeric, ginger, garlic, aloe vera, beetle leaf.

And the news of this practice has spread out and we got appreciation from the local people for implementing such an innovative method in college premises. The practice is given more publicity, so that the programme becomes a model and can be practiced by the local people.



Ridge gourd



Spinach

GPS Map Camera

Farooqnagar, TG, India

Farooqnagar, Farooqnagar, 509216, TG,
India

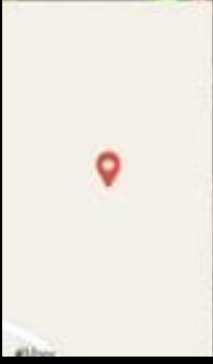
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Apple Maps



Bitter gourd



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


Bitter gourd



Sword beans



 GPS Map Camera



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Cucumis



Cucumis

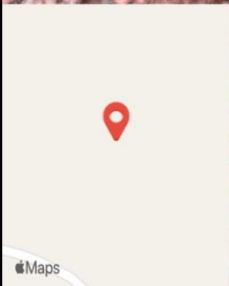


Tomato



Tomato

GPS Map Camera



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Colocasia



Amaranthus

GPS Map Camera



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Sweet Potato



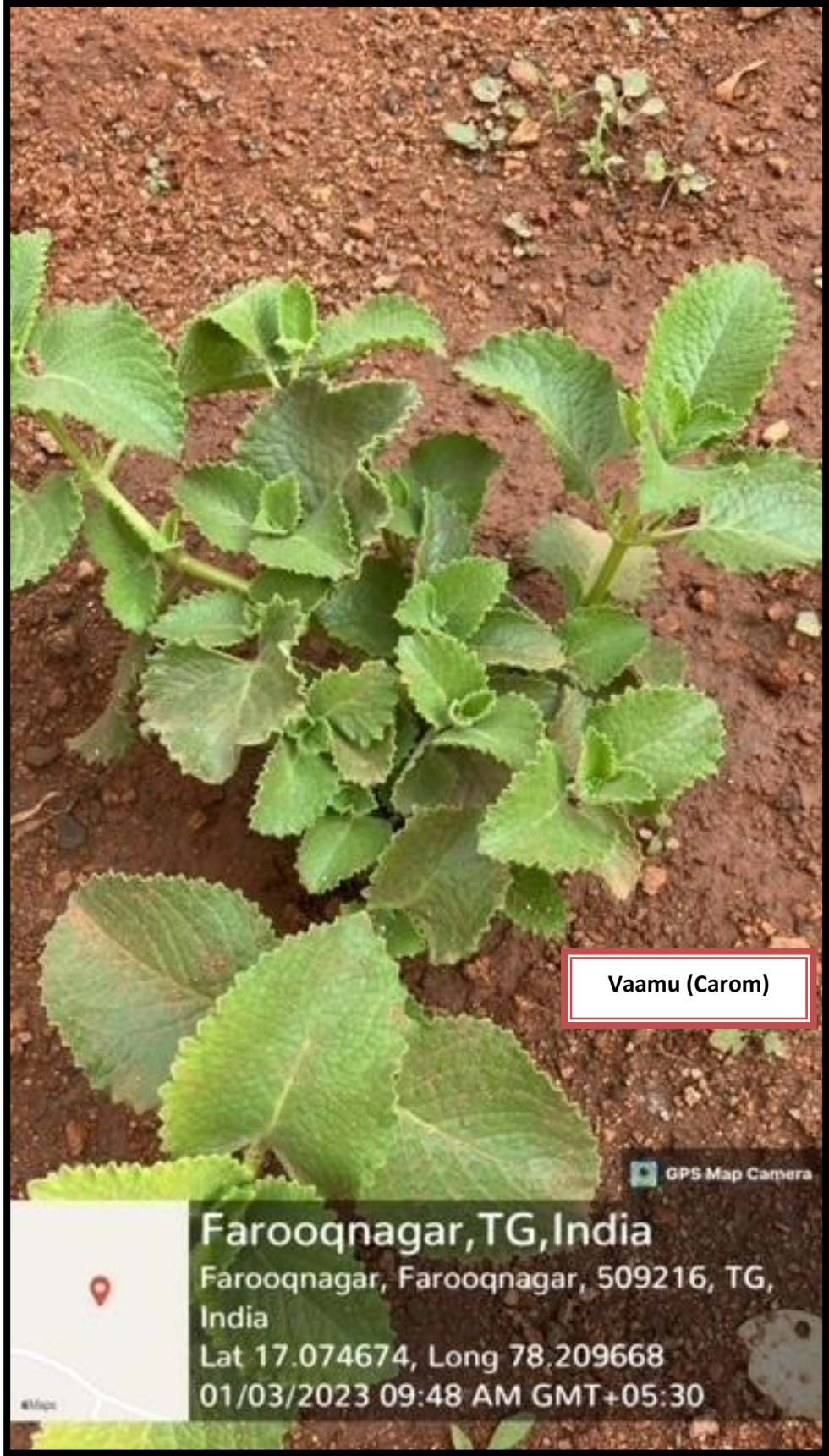
Potato



Nalleru



Lemon grass



Vaamu (Carom)

GPS Map Camera



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Pudina



Sabja

GPS Map Camera

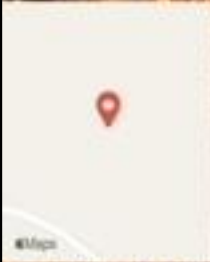


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Turmeric

GPS Map Camera



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Mega



Onion

Government Degree College, Shadnagar, Ranga Reddy

Department of Zoology

Best Practice-II

“Monitoring of Lifestyle Patterns of stakeholders from GDC, Shadnagar for a Healthy Society”

Objectives:

1. To assess the risks (blood pressure, random blood sugar level and lipid profile) associated with lifestyle based Non-Communicable Diseases viz., Hypertension, Diabetes mellitus, Obesity, Stroke and Myocardial infarction etc.
2. To evaluate certain general health parameters, such as Temperature, Pulse, Haemoglobin percentage, Weight, Height, Body Mass Index and Blood group typing.
3. To make suggestions and recommendations to reduce the risks of lifestyle patterns that lead to Noncommunicable diseases and premature deaths.

Context:

Noncommunicable diseases such as cardiovascular diseases, stroke, diabetes, overweight and obesity are collectively responsible for 74% of deaths worldwide. More than 75% of premature deaths occur in low-income and mid-income countries. The major risk factors for NCDs include lifestyle patterns like physical inactivity, unhealthy diets, tobacco use and harmful use of alcohol. The socioeconomic costs associated with NCDs make the prevention and control of these diseases a major development imperative for the 21st century.

As most of the chronic noncommunicable diseases can be prevented and modified to reduce the devastating health consequences for individuals, families and communities, an urgent action is needed for surveillance, control and prevention of NCDs to meet the global targets for a healthy society. In the present modern times, the lifestyle has become mechanical, stressful

with lot of hustle and bustle and passing each day like a rat race without reviewing and paying attention to our health. Often, public in general resort to modern way of lifestyle with changing times like resorting to fastfood, bakery items, icecreams, cooldrinks, physical inactivity, smoking, boozing, drug use, irregular sleeping habits, feeding habits etc. The urban population suffer from overweight and obesity while rural population suffer from underweight and deficiency diseases etc. In order to monitor and evaluate the risk factors associated with noncommunicable diseases, this practice of health check-ups and assessment of lifestyle pattern was initiated to reduce the premature and untimely deaths that we are witnessing very often in the present times.

The Practice: The stakeholders of this Higher Educational Institute that constituted the sample group included about 46 undergraduate students and 15 Teaching and Non-Teaching Staff who volunteered to participate in this monitoring and evaluation programme. This programme included certain physical and physiological tests associated with the risks of noncommunicable diseases like body weight, height, calculation of BMI (Body Mass Index), random blood glucose, blood pressure, temperature, pulse, blood group, lipid profile covering total cholesterol, triglycerides, HDL-C(High Density Lipoprotein Cholesterol), LDL-C(Low Density Lipoprotein Cholesterol), VLDL-C(Very Low Density Lipoprotein Cholesterol) etc. The aforesaid parameters were tested with suitable scientific methods in collaboration with local diagnostic centre, Shadnagar. The empirical data was collected and the results were analysed and the findings were interpreted in the light of normal reference values and graphically represented using pie charts. The students and staff participated with lot of excitement and enthusiasm.

Problems encountered and Resources required: With the available equipment and resources, we have assessed certain parameters such as height, weight, BMI calculation, blood pressure, pulse, temperature, blood group typing at our college itself. For other physiological and hematological parameters, we have taken the help of local diagnostic centre for collecting blood samples and analysing lipid profile assays at a nominal cost. We could not extend this evaluation to all the students and staff due to lack of advanced equipment like automatic analyzer and economic reasons.

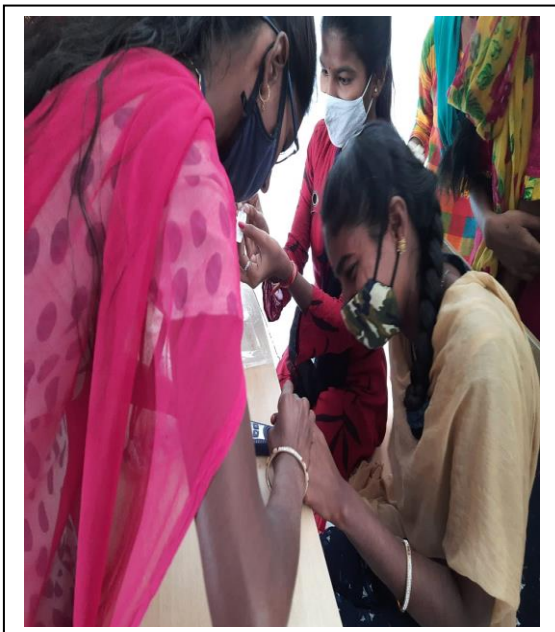
Evidence of Success: This practice has triggered a lot of enthusiasm and excitement in all the stakeholders of this Higher Educational Institution to know their current health status and created a sense of health consciousness. The findings of this monitoring program revealed several health insights and enabled them to initiate certain changes in their lifestyle patterns for a better, productive and healthy society.



Students measuring Height in cm of the Subjects under study using Measuring Tape



Student measuring Weight in Kg using Weighing Machine of the Subjects



Students measuring Random Blood Glucose using Glucometer





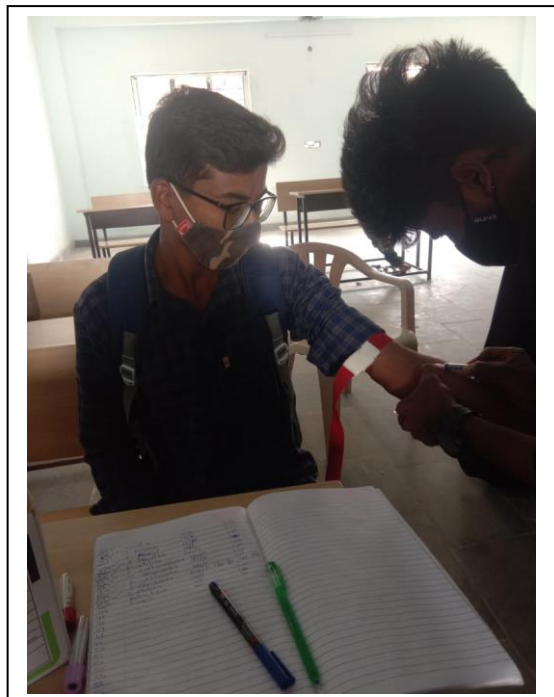
Technician from Local Diagnostic Centre drawing blood sample from students for haematological parameters



Students measuring Random Blood Glucose using Glucometer



Technician from Local Diagnostic Centre drawing blood sample for hematological parameters





Students measuring Height in cm of the Staff using Measuring Tape



Students measuring Blood Pressure & Pulse of the Staff using Automatic BP Monitoring Machine



Figure #1: Pie Chart showing BMI Findings of select UG Students in Percentage

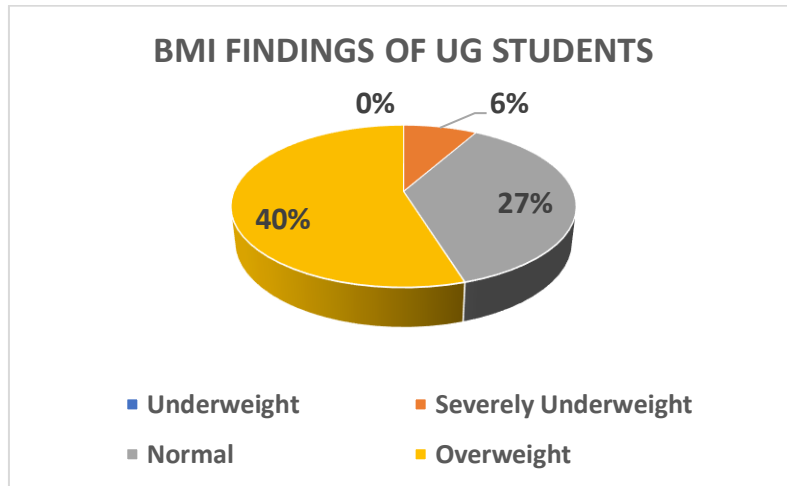


Figure #2: Pie Chart showing Blood Pressure Status of select UG Students in Percentage

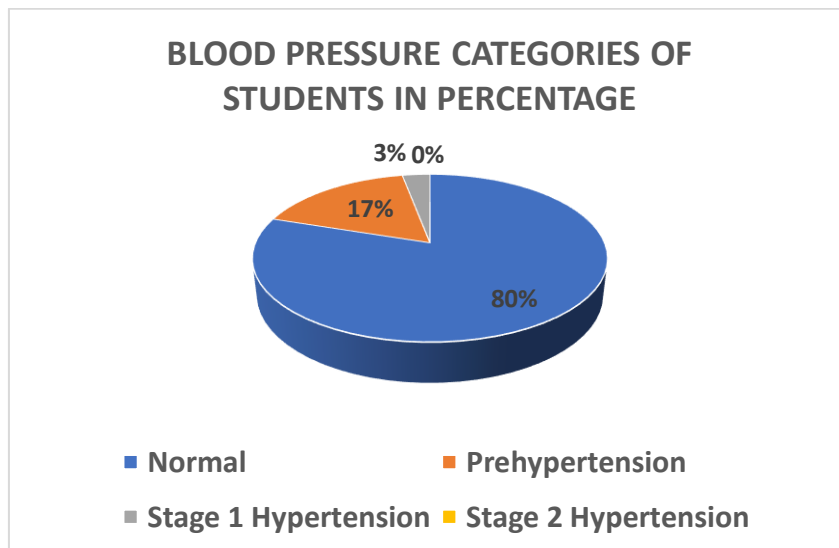


Figure #3: Pie Chart showing Pulse Categories of select UG Students in Percentage

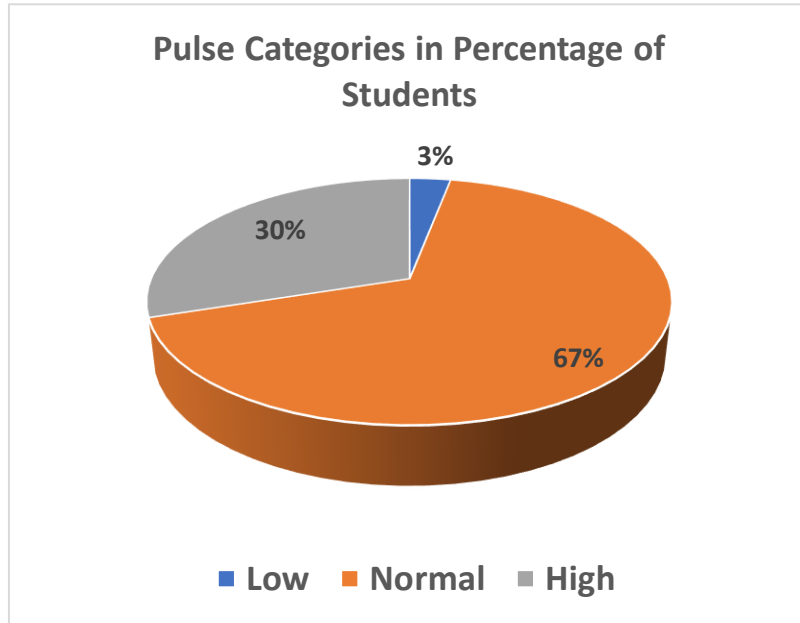


Figure # 4: Pie Chart showing Blood Group Analysis of select UG Students in Percentage

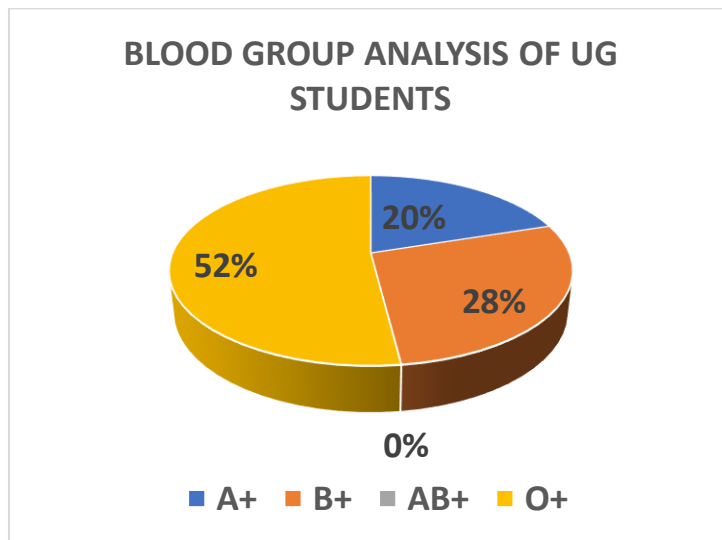


Figure # 5: Pie Chart showing BMI Findings of Staff in Percentage

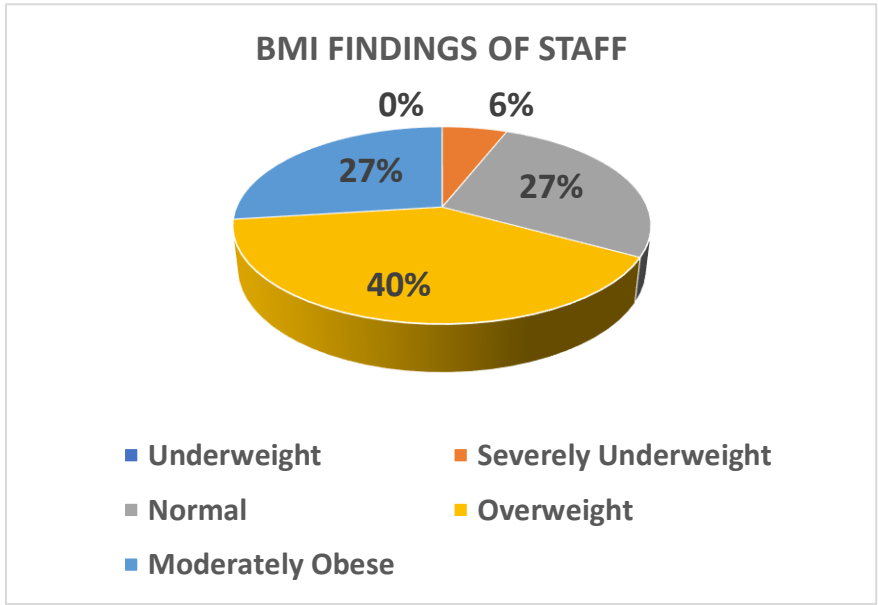


Figure # 6: Pie Chart showing Blood Pressure Status of Staff in Percentage

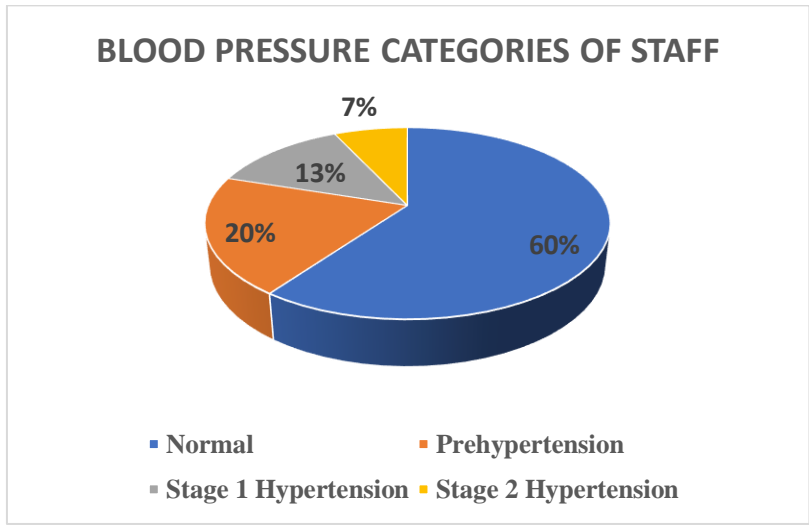


Figure # 7: Pie Chart showing Pulse Categories of Staff in Percentage

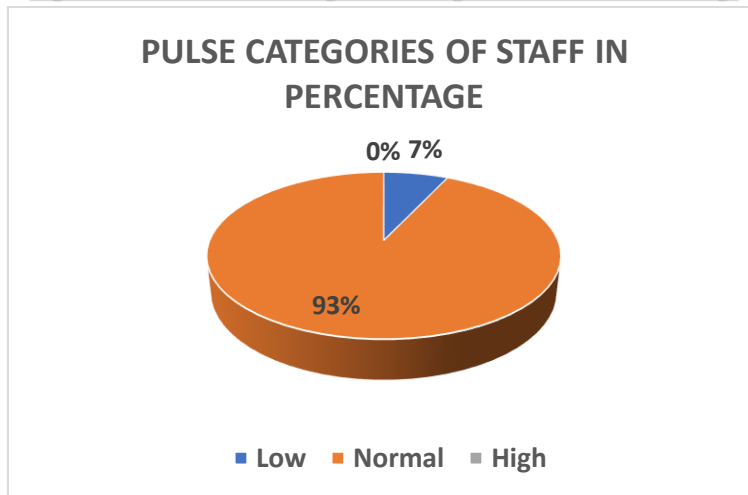


Figure # 8: Pie Chart showing Blood Group Analysis of Staff in Percentage

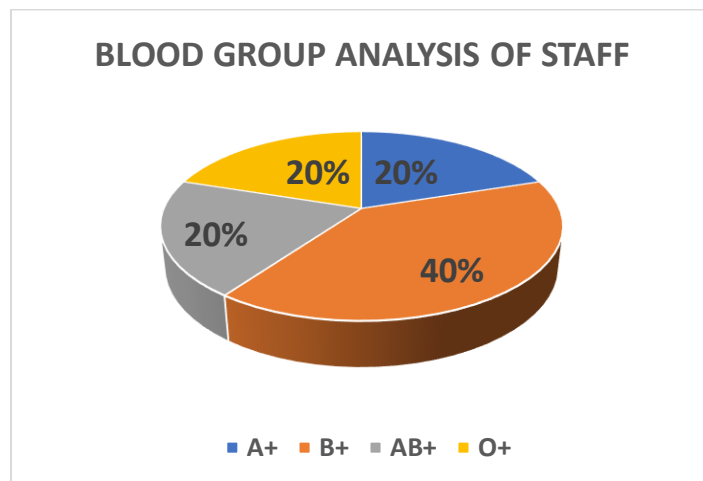


Figure # 9: Pie Chart showing Lipid Profile Status of UG Students in Percentage

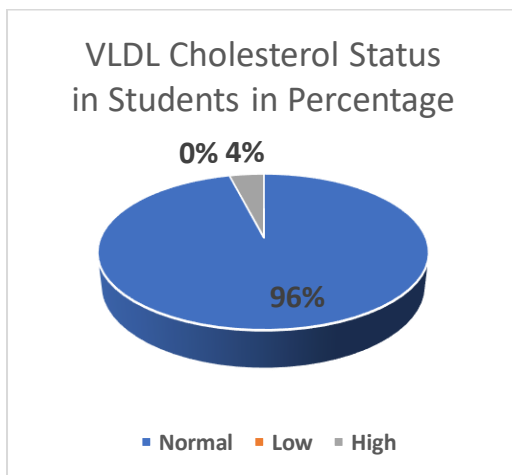
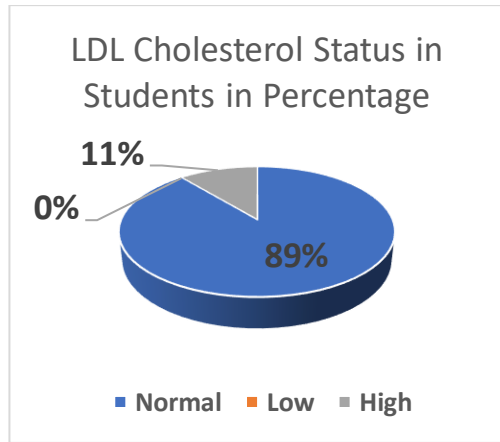
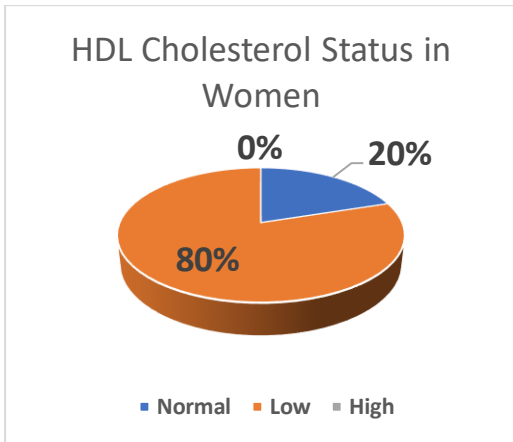
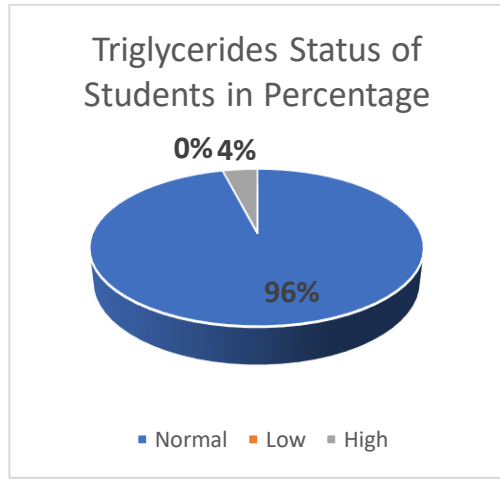
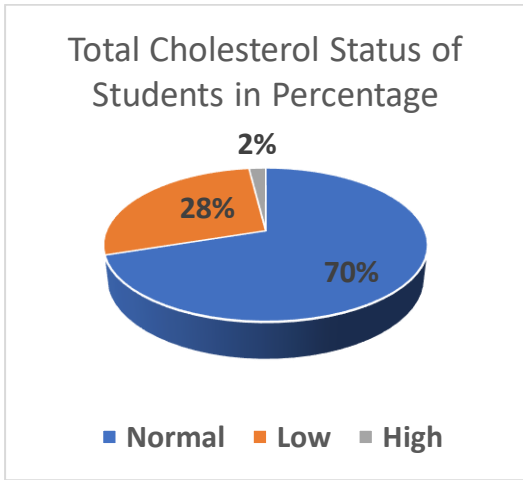


Figure #10: Pie Chart showing Haemoglobin Status of select UG Students in Percentage

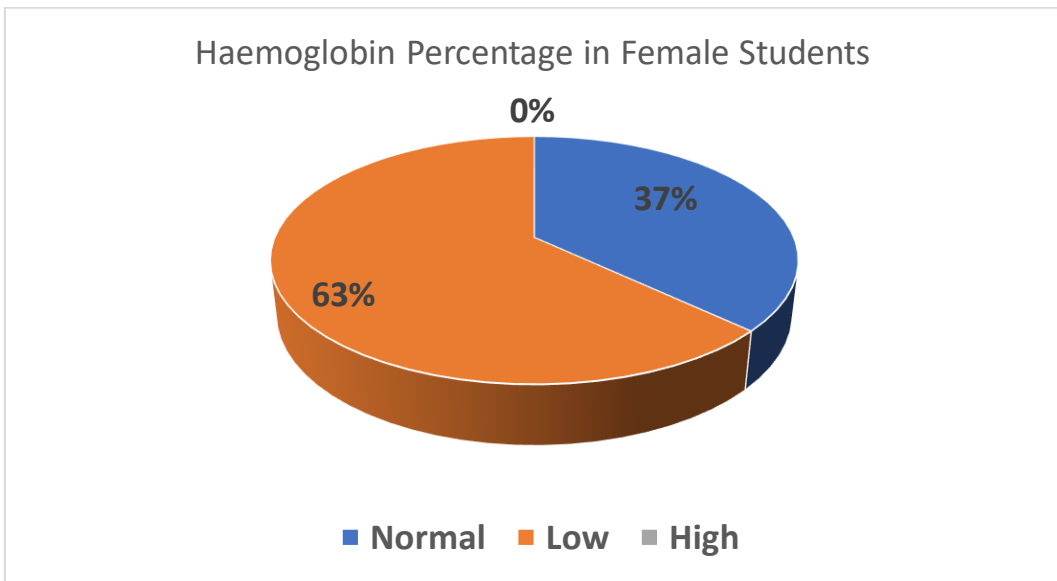
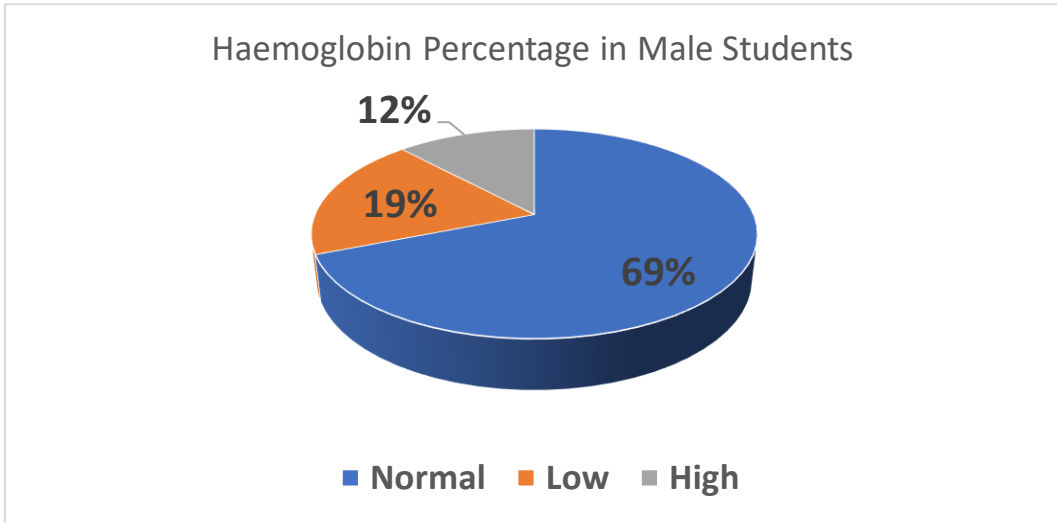


Figure #11: Pie Chart showing Lipid Profile Status of Staff in Percentage

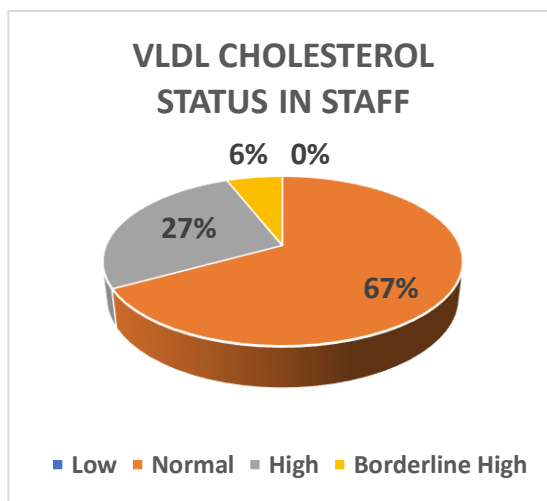
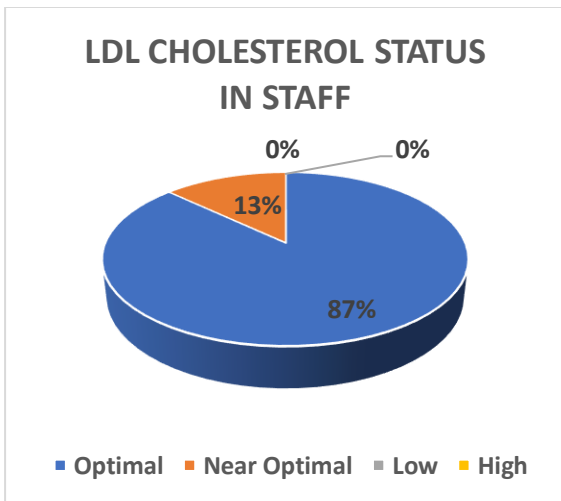
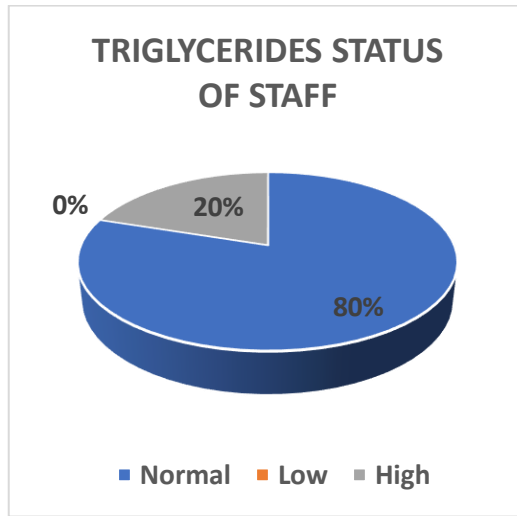
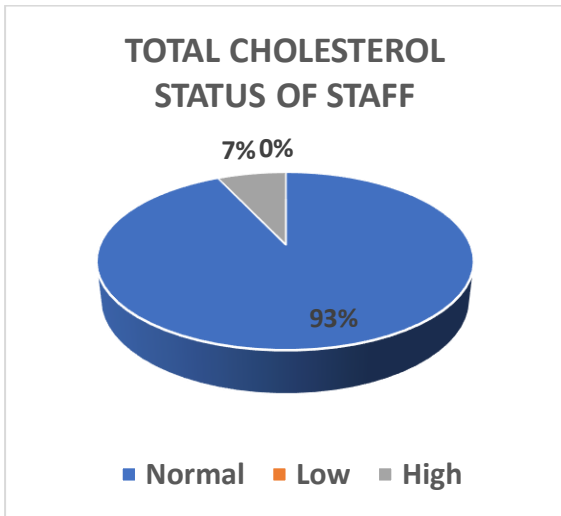
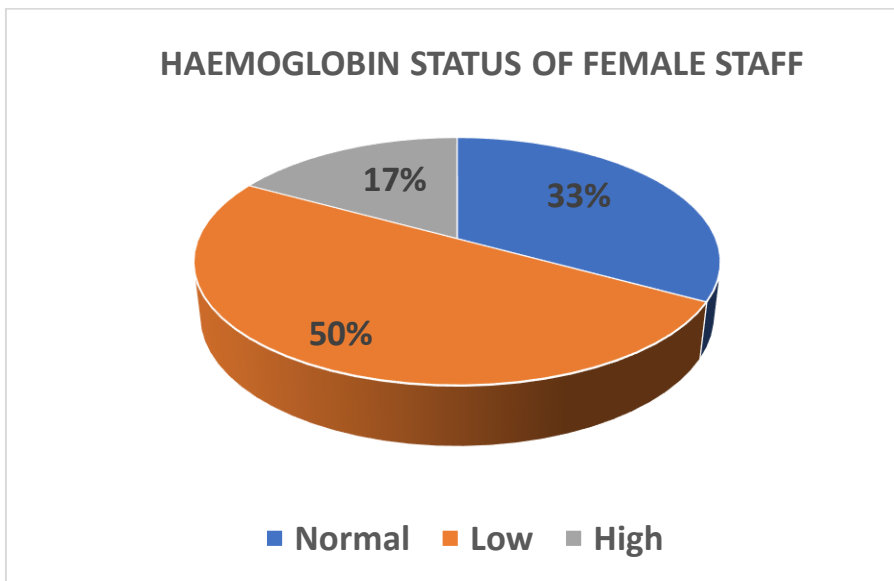
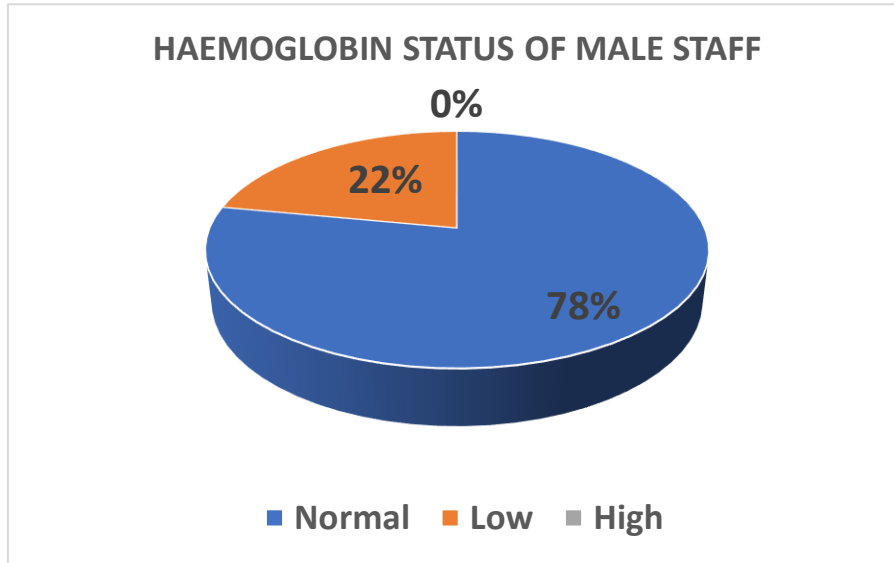


Figure #12: Pie Chart showing Haemoglobin Status of Staff in Percentage



CONCLUSIONS AND RECOMMENDATIONS

1. About 37% of the students were underweight, 28% were severely underweight, 31% were normal category while 4% were overweight.
2. None of the students were in diabetic range.
3. Around 80% of the students showed normal blood pressure values, 17% of the them belong to Prehypertension category while 3% of them were falling under Hypertension Stage1.
4. About 67% of the students showed normal pulse rate, 30% of them exhibited higher pulse rate while only 3% showed lower pulse rate.
5. About 52% of the students were O positive, 28% of them were B positive, while 20% of them were A positive and none of them showed AB blood group.
6. About 40% of the staff were overweight, 27% were moderately obese, 27% were normal while 6% were severely underweight.
7. None of the staff members were in diabetic range.
8. About 60% of the staff showed normal blood pressure values, 20% of the them showed Prehypertension, 13% of them showed Hypertension Stage1 while 7% exhibited Stage 2 Hypertension.
9. None of the staff members were febrile.
10. About 93% of the staff showed normal pulse rate, 7% of them exhibited lower pulse rate while none of them showed higher pulse rate.
11. The staff with B positive were 40% , while A positive, AB positive and O positive blood groups were 20% each.
12. The normal total cholesterol values were shown by 70 % of the students, 28 % displayed lower values while 2 % indicated higher values.
13. About 96 % of the students showed normal values of Triglycerides while 4 % of them showed higher values.
14. All male students showed normal values of HDL-C while 80 % of female students exhibited lower levels of HDL-C, 20 % of them were in the normal range.
15. About 89 % of the students showed normal values of LDL-C while 11 % of the students indicated higher levels of LDL-C.
16. About 96 % of the students showed normal values of VLDL-C while 4 % of the students exhibited higher levels of VLDL-C.
17. About 69 % of the male students were in normal haemoglobin range, 19 % of them were anaemic while 12 % of them were in the higher range. Similarly, 63 % of the female students were anaemic while 37 % of them were in normal range.

18. About 93 % of the staff showed normal values of Total Cholesterol while 7 % indicated higher values.
19. About 80 % of the staff showed normal values of Triglycerides while 20 % of them showed higher values.
20. All male staff showed normal values of HDL-C while all female staff exhibited lower levels of HDL-C.
21. About 87 % of the staff showed optimal values of LDL-C while 13 % of the staff exhibited near optimal levels of LDL-C.
22. Around 67 % of the staff showed normal values of VLDL-C, 27 % of the staff exhibited higher levels of VLDL-C while 6% of them showed borderline high.
23. About 78 % of the male staff were in normal range of Hb, 22 % of them were anaemic. Similarly, 50 % of the female staff were anaemic while 33 % of them were in normal range while 17% of them were in the higher range.

Recommendations:

1. Those subjects who are underweight should take balanced diet in right proportion.
2. Those subjects who are overweight or obese should do exercise regularly, control the diet according to their age, type of work and physiological condition.
3. Those subjects who are in prehypertension or in stage 1 or stage 2 of hypertension should reduce the salt intake, pickles, stress. They should take minimum eight glasses of water per day.
4. Subjects with high bad cholesterol (LDL-C, VLDL-C), Triglycerides and total cholesterol should avoid or reduce the intake of saturated fats like dalda, vanaspathi, ghee, prawns, red meat and trans-fat substances like potato chips etc. They can consume 2 or 3 garlic pieces daily to reduce the cholesterol.
5. Those subjects who are anaemic, should take more iron rich food like spinach, dates, jaggery, soyabeans etc.