SREE NARAYANA COLLEGE

PUNALUR

INSTITUTIONAL DISTINCTIVENESS

SREE NARAYANA COLLEGE

PUNALUR, KOLLAM - 691305

(Affiliated To the University of Kerala)

HEALTH AUDIT REPORT

(A Report based on Clinical, Anthropometric and Biochemical Tests)

IN COLLABORATION WITH

GOVERNMENT TALUK HOSPITAL, PUNALUR.

PRINCIPAL
SREE NARAYANA COLLEGE
PUNALUR

SREE NARAYANA COLLEGE PUNALUR

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PUNALUR

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INTRODUCTION

Background and Objectives

Non-communicable diseases have been described as the modern epidemic of the current era. A retrograde age shift is being noted in the prevalence of diseases such as diabetes mellitus, hypertension, and obesity, which is alarming. Young adults are at an increased risk of developing these diseases because of indulgence in faulty lifestyle practices. In recent years both the medical profession and the media have become increasingly concerned about the levels of obesity being reached throughout the world. Body Mass Index (BMI) is used as a useful population-level measure of overweight and obesity. It is used as the same for both sexes and for all ages of adults. The relationship between BMI and body fat percentage (BF %) has been studied in various ethnic groups to estimate the capacity of BMI to predict adiposity. Although direct measurement of body composition is becoming increasingly viable, attention has often been focused on the easier-to-measure body mass index (BMI), defined as the ratio of weight (in kilograms) to the square of height (in metres). In order to collect the data regarding the current health status of the Student Groups, admitted to the College every year, a biomarker component has been introduced. The CAB survey is specifically designed to fill the data gaps on nutritional status, life style diseases like diabetes & hypertension and anaemia, so that College level medical awareness programmes and necessary medical assistance to students can be drawn up, funded and implemented. This data can serve as the baseline, helping to assess not only the current health status of the students, but also the impact of these interventions, further enables midcourse corrections by identifying the factors responsible for the poor health performance of the students. Thus, in making available various Department wise student - health data of the College, the CAB survey aims to contribute immensely to rapid improvement in health and nutritional indices of the students, by demonstrating good quality assessment of health and nutritional status among students, enabling them therefore to bridge the gap between poor and good health status. The Clinical, Anthropometric and Biochemical (CAB) survey has been conducted for three years from 2019 onwards, with the Collaboration of Government Taluk Hospital, Punalur.Doctors and Nursing staffs from the Hospital assisted and helped the health volunteers of our college to

conduct the health survey very precisely and accurately. First health survey for the 2019 batch students were conducted on August- 2019, followed by two other surveys on January – 2021 (for 2020 batch students) and October -2021 (for 2021 batch students). Many adult health problems eg. hypertension, diabetes has their early origins in early adulthood, because this is the time when lifestyles are formed.

Indicators and instruments used for data collection

Stunting (low height-for-age), **Wasting** (low weight-for-height), **Underweight** (low weightfor-age) and **undernourished** (low Body Mass Index, BMI) are the four major indicators available for measuring malnutrition level in students. For students, undernourishment and BMI indicators are provided separately for male and female.

Stunting is the effect of an insufficient intake of vital nutrients over a long period of time and frequent infections, leading to a failure to reach a linear growth potential. Stunting, which is also termed as low height-for-age, is associated with poor socio-economic conditions, inappropriate feeding habits and an amplified risk of exposure to adverse conditions such as illness. On the other hand, a reduction in the stunting prevalence is usually indicative of enhanced health and socio-economic conditions.

Wasting is also termed as low weight-for height or thinness. Acute starvation and/or severe diseases are its key indicators as it is often associated with a severe process of weight loss. It may also be a consequenceof chronic unfavourable condition.

Underweight is a condition reflecting a low level of body mass relative to the corresponding age. Weight-for-age is determined by both the height of the child (height-for-age) and weight (weight-for-height).

Under-nutrition can be termed as a deficiency of calories or several vital nutrients essential for growth and survival. Undernutrition develops largely when people fail to obtain or prepare food, suffer from a disorder that makes eating or absorbing food difficult, or have a greatly increased need for calories.

Over-nutrition is a form of malnutrition marked by an excessive intake of nutrients. The amount of nutrients consumed exceeds the amount required for normal growth, development and metabolism.Overnutrition can develop into obesity, which increases the risk of serious health conditions, including cardiovascular disease, hypertension, cancer, and type-2 diabetes.

BMI: Body Mass Index (BMI) is an index of weight-for-height that is commonly used to classify underweight, overweight and obesity. It is determined by the weight in kilograms divided by the square of the height in meters (kg/m^2). For example, an adult who weighs 70kg and whose height is 1.75m will have a BMI of 22.9.[5,6].

Anaemia is a disorder in which the number of red blood cells or their oxygencarrying capacity is insufficient for physiological needs, which vary by age, sex, altitude, smoking and pregnancy status. One of the most important causes for anaemia is iron deficiency, although other conditions like deficiencies in folate, vitamin B12 and vitamin A, chronic inflammation, parasitic infections and inherited disorders can all cause anaemia. It often leads to fatigue, weakness, dizziness and drowsiness. Anaemia, measured by haemoglobin level, is available for children (sex-wise), women and men.

Anaemia, measured by Hemoglobin level, is available sex wise for all students. Adult anemia is categorized for age 18and above.

Blood sugar concentration or blood glucose level is the amount of glucose (sugar) present in the human body. The body tends to regulate blood glucose levels naturally as a part of metabolic homeostasis. Glucose levels are usually the lowest in the morning, before the first meal of the day (termed the fasting introduction by a few millimolars after meals.Blood sugar levels outside the normal range may be indicative of a medical condition. A persistently high level is referred to as hyperglycemia while low levels are referred to as hypoglycemia.Blood sugar has beenprovided in the ranges of: mg/dL.

Hypertension or high blood pressure is a medical condition whereinblood flows through the blood vessels with a force greater than normal. Blood pressure is expressed by two measurements systolic and diastolic, which are the maximum and minimum pressures respectively in the arterial system. Whilesystolic pressure occurs when the left ventricle is most contracted, diastolic pressure occurs when the left ventricle is most relaxed prior to the next contraction. Data for hypertension levelsis provided for persons aged 18 and above only. Hypertension in three separate categories of Systolic & Diastolic measurements viz. above normal (>140/90 mm of Hg), moderately high (>160/100 mm of Hg), and very high (>180/110 mm of Hg) have beenprovided.

Blood sugar and Hypertension level are provided for all students. Separate categories of Systolic & Diastolic measurements viz. above normal (>140/90 mm of Hg), moderately high(>160/100 mm of Hg), and very high(>180/110 mm of Hg) is provided.

EQUIPMENTS

Various equipments are used to take measurements and to collect data. Height is measured using **Wall Mounted Statute Meter**. Weight is recorded with the help of a **Digital Weighing**

Scale.Automated Digital BP monitor is used to take blood pressure and **Hb pipette** for blood samples. Hb level is measured with the help of **Haemoglobinometer**in designated labs. The survey collected data directly from the student participants on the clinical components like BP measurements, anthropometric parameters like measurement of weight and length/height and collected biochemical samples like blood for Hb and fasting glucose. Annual Health Survey Report basedon the spot information on health status is provided to the participants during the survey in the form a student health Card.

RESULTS

The Survey has taken into consideration all students per Department of College. The fasting blood sugar prevalence level has been taken as the decisive indicator for student diabetic condition.

Undernutrition is identified as both a health outcome and a risk-factor. It initiates a vicious cycle wherein it causes several other infectious diseases (including respiratory diseases) and further deteriorates nutritional health and is identified as a major cause of lack of concentration, absenteeism and poor performance in the academic and other extracurricular activities in the students. Undernutrition persists as a major public health challenge for the country also. The CAB survey finds that among the students who had undergone the health survey, stunting prevalence among students is highest in 2019 batch students, while the highest prevalence of underweight and wasting is found in 2021 batch students (16.8 per cent). Among the total students surveyed, 2020 batch students have lowest level of stunting and wasting prevalence (06.1 per cent). They also display lowest prevalence of underweight (02.0 per cent). It is observed that a positive correlation occurred between batch wise prevalence of underweight and

stunting, thus the students with low stunting prevalence, also report a low prevalence of underweight as in the case of 2020 batch students(Table 1).

Table 1: Representation of the range of the criteria analyzed among the students of 2019,2020,2021

Criteria analysed	2019	2020	2021
Undernutrition	High	Low	High
Nutritional status	Highly undernourished	Low	Lowest
Over nourishment	Low	Low	High
Anaemic	Highest	Low	Lowest
Blood Sugar level	Highest	Lowest	High
Blood Pressure	Moderate	Highest	Lowest
BMI	Lowest	High	Highest

Table 2 .Representation of the percentage incidence of the criteria analyzed

Criteria analysed	2019(%)	2020(%)	2021(%)
Undernutrition	15	6.1	16.8
Nutritional status- Undernourished	5	2.3	3.2
Over nourishment	1	1	1.4
Anaemic	24.3	11.7	18.6
Blood Sugar level	4.8	1.1	2.5
Blood Pressure	8.6	18.2	11.3
BMI	3.3	4.3	4.8

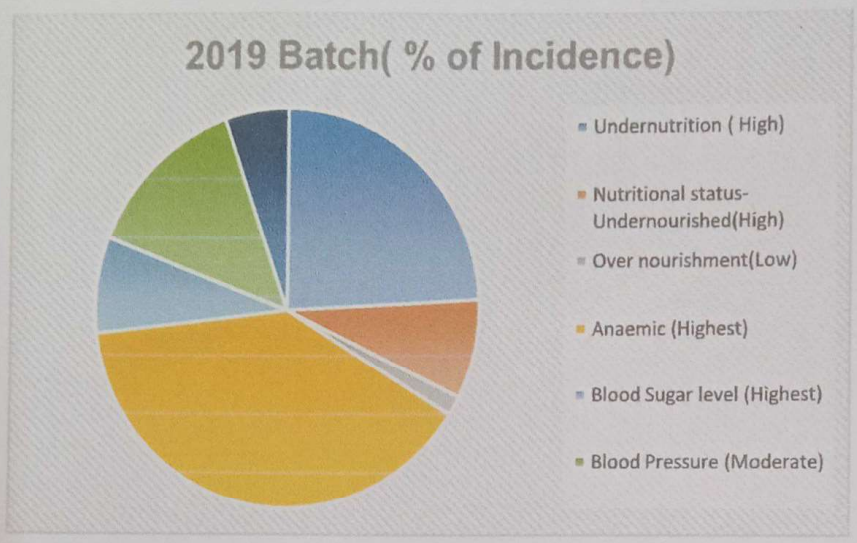


Fig1: Graph showing the % prevalence of the criteria analyzed in 2019 batch

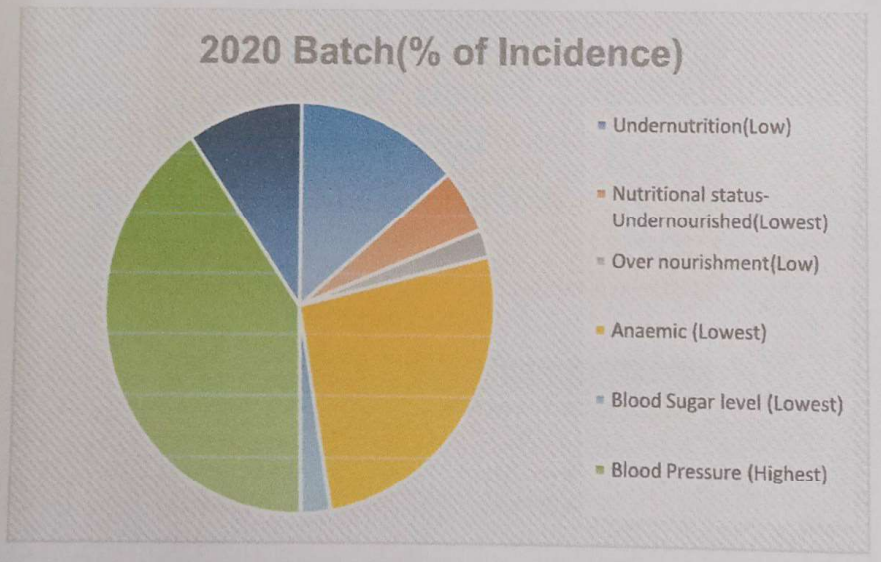


Fig2: Graph showing the % prevalence of the criteria analyzed in 2020 batch

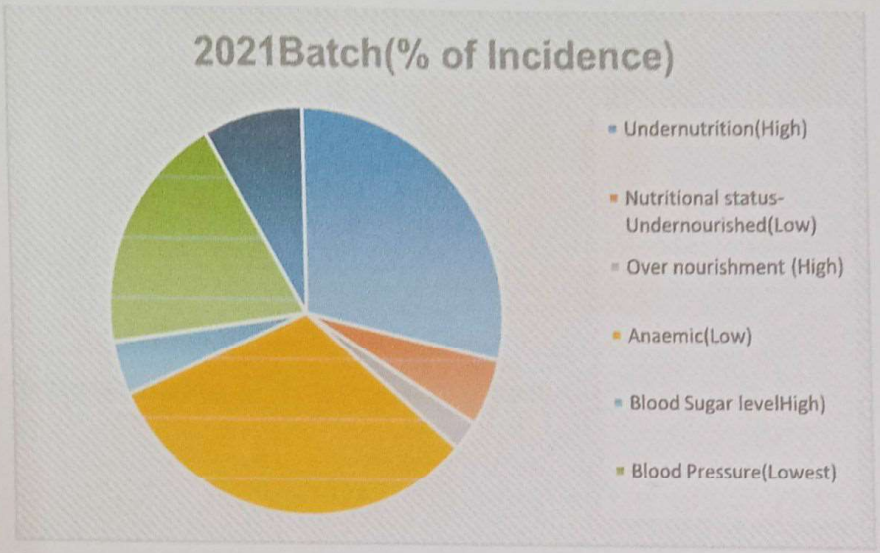
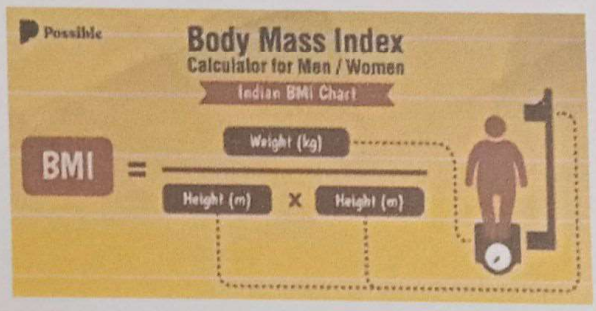


Fig3: Graph showing the % prevalence of the criteria analyzed in 2021 batch



WHO CLASSIFICATION OF WEIGHT STATUS	
WEIGHT STATUS	**BODY MASS INDEX (BMI), kg/m^2**
Underweight	<18.5
Normal range	18.5 – 24.9
Overweight	25.0 – 29.9
Obese	≥ 30
Obese class I	30.0 – 34.9
Obese class II	35.0 – 39.9
Obese class III	≥ 40

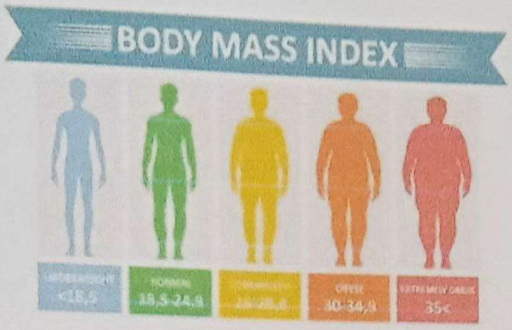


Table 3: Representation of fat %,BMI range of 2019 batch

BMI Range	2019(% of Prevalence)	Fat %
BMI<18.5	3.2	10.14
BMI≥25	3.3	17.94
BMI≥30	0.5	24.3

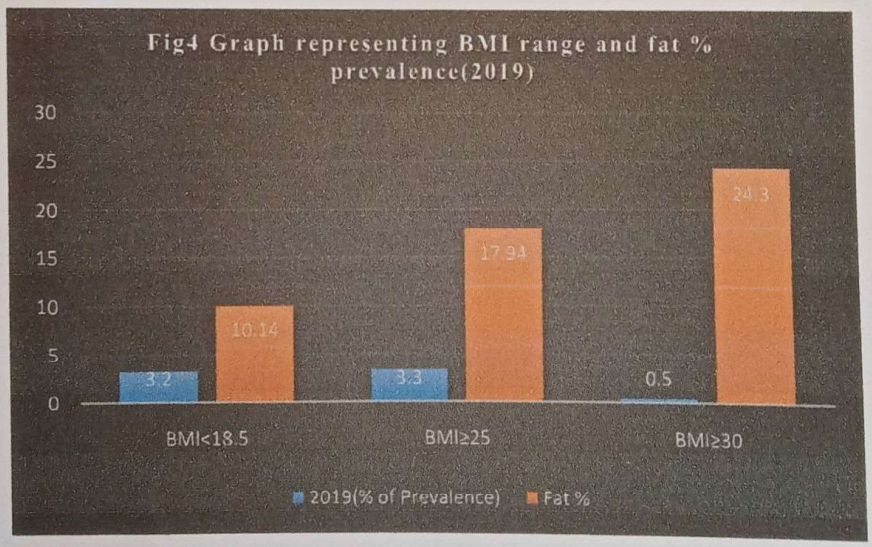


Table 4:Representation of fat %,BMI range of 2020 batch

BMI Range	2020(% of Prevalence)	Fat %
BMI<18.5	4	10.14
BMI≥25	4.8	17.94
BMI≥30	1.2	24.3

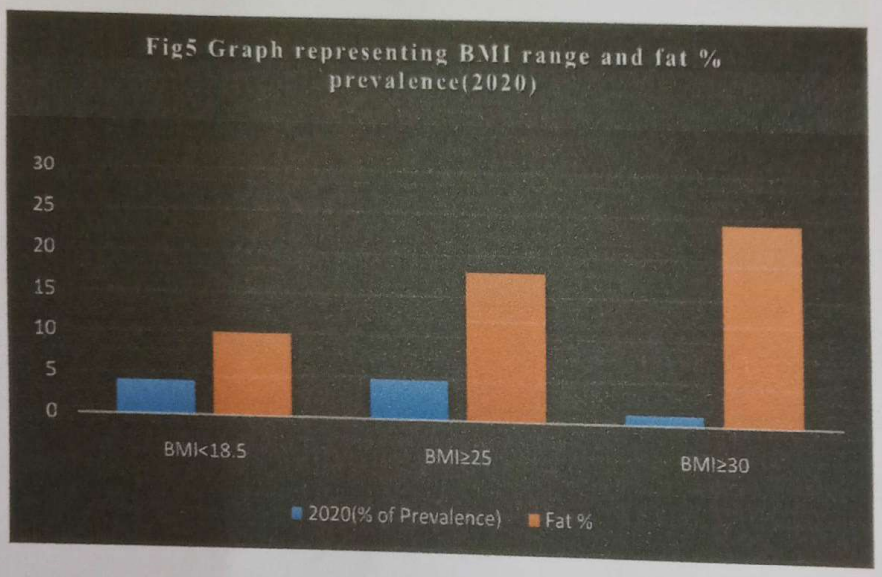
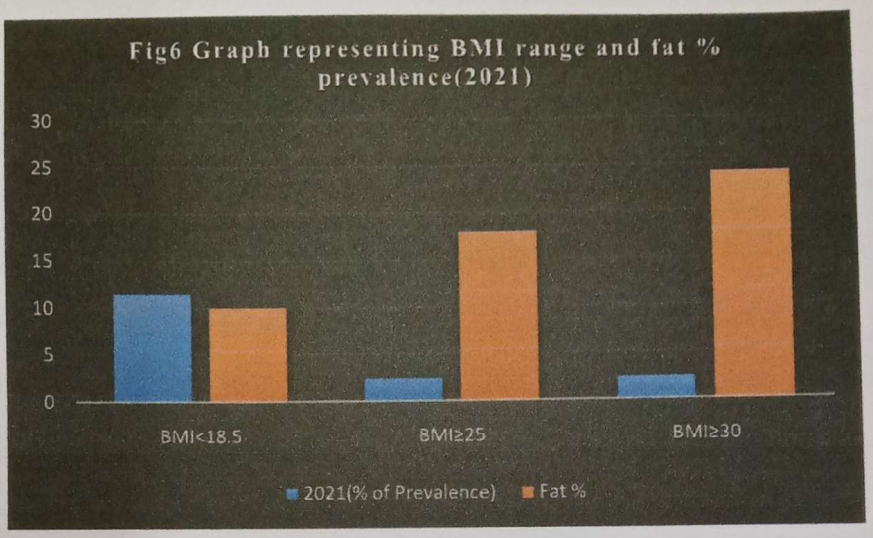


Table 5: Representation of fat %,BMI range of 2021 batch

BMI Range	2020(% of Prevalence)	Fat %
BMI<18.5	11.5	10.14
BMI≥25	2.5	17.94
BMI≥30	2.3	24.3



Nutritional status of Students

The CAB survey provides vital insights regarding nutritional status ofstudents. 2019 batch students recorded the highest prevalence of undernourishment (5.0 per cent) and severe undernourishment (1.5 per cent).2020 batch and 2021 batch students recorded the lowest prevalence of 2.3 per cent and 3.2 per cent, respectively. Prevalence of over nourishment is comparatively low in all the three batches of students approximately at 1 per cent and the highest in 2021 batch at 1.4 per cent. Male-female differential is considerably high among students, denoting that more girls tend to be under-nourished especially among 2019 batch students. (Table 2,Fig 1,2.3)

Percentage of underweight population with BMI less than 18.5 among student is highest in 2021 batch students (11. 2 per cent). **Percentage of overweight population with BMI greater than or equal to 25**among the whole student groups is found highest in 2020 batch (4.8 per cent) and lowest in 2019 batch (3.3 per cent). Also, **percentage of obese students with BMI greater**

than or equal to 30 is found highest in 2021 batch students (2.3 per cent) and lowest in 2019 batch students (0.5 per cent).

Among malestudents, the prevalence of underweight is the highest in in 2019 batch students. Obesity prevalence among male students is found highest in 2021 batch students (3.2 per cent). Among females, 2019 batch students shows the highest underweight prevalence at 12.3 per cent. Similarly highest prevalence of obesity is recorded in 2021 batch girl students (4.3 per cent) and lowest in 2020 batch students(1.6 per cent). A positive association is observed between batch wise prevalence of underweight among females. [1].It suggests importance of improving nutritional status as it can be a significant determinant in securing further improvements in the general health status of females.

Anaemia prevalence

Among the whole students participated in the health audit, highest prevalence is reported from 2019 batch at 24.3 per cent, and the least from 2020 batch students at 11.7 per cent. Cases of anaemia were higher in femalestudents'of 2019batch, while in the 2021 batch student group, the highest prevalence of anaemia among males and females is found at 18.6 per cent.

Blood sugar levels

Estimation of blood Glucose level.: The prevalence of blood sugar among the student population has been considered as 8.6 per cent across the whole college while estimating the samplesize.The permissible level of error has been taken as 10 percentage relative standard error (PRSE) at the College level. A total 948 students have been surveyed.

It is observed that more number 4.8 percent of students from 2019 batch has blood sugar levels higher than 150mg/dl, followed by 2.5 per cent in 2021 batch with high blood sugar levels and the lowest level of 1.1 per cent in 2020 batch students.In all the students studied, individuals coming from rural areas are found to have lower levels of blood sugar than those coming from urban areas.

Students from 2019 batch score the highest percentage of men (13.2 per cent) and women (9.9 per cent) blood glucose level, in the greater than 110mg/dl category. In the greater than 130 mg/dl section too, 2019 batch students showed the highest prevalence, but in case of women with blood sugar levels higher than 130 mg/dl, 2021 batch students has the highest percentage of 4.8, followed by 2020 batch students at 2.6 per cent. However, the patterns were different at the above 150 mg/dl levels as 2019 batch (1.6 per cent) had the highest level closely followed by 2021 batch (2.2 per cent). It is clearly evident from the health survey of 2019 batch studentsthat, there is a clear association between high blood sugar levels and high levels of BMI (greater than 30), as the percentage of students having blood sugar levels higher than 150 mg/dl is more or less similar to the percentage of students with BMI higher than 30, implying higher risk of diabetes.(Table 4,Fig 4,5,6). The most commonly used indicator of % body fat is BMI, although it is well known that it has an imperfect association. Muscle mass can vary considerably between individuals of the same height, and it contributes substantially to the variability in BMI, especially in leaner individuals.

High blood pressure levels

Prevalence of blood pressure levels above normal range (for all the three batches of students combined) is found to be the highest in 2020 batch students(18.2 per cent) and lowest in 2021

batch students(11.3 per cent). Moderately high hypertension is also the highest in 2020 batch (8.6 per cent) and lowest in 2021batch(4.5 per cent). Prevalence of very high blood pressure is again observed to be highest in 2020 batch students(2.8 per cent) and lowest in 2021(2.1per cent).Above normal range blood pressure among both males and females is highest in 2020 batch (22.4 and 16.3 per cent respectively) and lowest in 2021 batch students(14.3 and 11.6 per cent respectively). Considerable batch wise variations are observed in case of above normal range hypertension. A higher prevalence of above normal blood pressure levels in total student population, when compared with rural student population indicates that hypertension is a greater concern among students residing in urban areas.

CONCLUSION

An elaborate quality control mechanism was put in place to ensure the emergence of the best possible data. Intensive training, supply of detailed instruction manual explaining each step of data collection, and accuracy testing of measurements are some of the methods that were adopted for quality control. Other measures taken include immediate replacement of faulty equipments, selection of the most suitable and experienced persons like lab technicians for field work in the Health Camp site. Protocols were prescribed for the usage of equipments and consumables in the field.Appointment of a doctor as health consultant for every health Audit session was another important step to ensure data quality by supervising field activities, checking the accuracy of equipments and undertaking duplicate assessments. In order to maintainthe quality of the survey, constant monitoring and supervision of the field activities were undertaken by the members and Convener of the Health Audit.Intensive training has also been provided to the student members of Health Audit team, The field investigators were trained for skill upgradation and taught about quality control measures to ensure accuracy of measurements. The medical consultants were

alsospecifically trained by senior doctors of the Government Taluk Hospital,Punalur, for the purpose. Overall, the health audit conducted annually,clearly highlights the need for effective interventions to handle the situation by helping those students who are in need of clinical support or immediate medical attention. As per the report of Health survey, some students are in high need of immediate medical advice from an eminent Physician and Dietician to control their depreciating levels of nutrition. Such students are referred to Government Taluk Hospital, Punalur, by the team of medical experts, participated in the health survey. Our College took all the efforts to offer all financial and other support to those students to overcome their current health issues. To conclude with, we hope that more awareness should be raised among the target population. This will result in a drastic improvement of their quality of life, and shift their focus to a better lifestyle in the near future.Efforts should be directed towards educating the college students about hypertension to change their lifestyles and reduce the incidence of hypertension in later life.Creating awareness is the major step in prevention of obesity. Other strategies included educational interventions for the public regarding consuming a healthy diet, following strict physical exercise regimen, maintaining normal body weight, and avoiding use of tobacco, alcohol, junk foods and beverages drinks. Stress reduction measures also should be included. The preventive strategies involve counseling for healthy eating, psychological interventions for over eating people, nutritionists can plan and give diet schedule. Baseline knowledge of the students regarding preventive measures of hypertension like avoiding junk food/ healthy diet, exercise and meditation should be given among the student communities regardless of their disciplines.

Suggestions and Recommendations

A healthy lifestyle

To ensure a healthy lifestyle, WHO recommends eating lots of fruits and vegetables, reducing fat, sugar and salt intake and exercising. Based on height and weight, people can check their body mass index (BMI) to see if they are overweight.

Nutritional status

BMI	Nutritional status
Below 18.5	Underweight
18.5–24.9	Normal weight
25.0–29.9	Pre-obesity
30.0–34.9	Obesity class I
35.0–39.9	Obesity class II
Above 40	Obesity class III

"Overweight" is defined as a body mass index (BMI) value of 27.3 percent or more for women and 27.8 percent or more for men. These definitions of overweight are based on an analysis of BMI relative to the risks of disease and death[2].

"Obesity" is defined as a BMI of 30 and above. A BMI of 30 is about 30 pounds overweight. (Notably, some very muscular people may have a high BMI without health risks)[3,4].

According to the NIH guidelines, the most successful strategies for weight loss include calorie reduction, increased physical activity, and behaviour therapy designed to improve eating and exercise habits.

The following are some of the factors that may contribute to overweight adolescents:

- Easy availability of food, especially high-calorie snack food
- Parents' attitudes toward food
- Eating more fast foods
- Using food as a reward or punishment to change behaviours

- Lack of exercise
- TV watching and snacking
- Not knowing how to eat healthy
- Heredity (parents' and family members' weight)

Recommendations include:

- Engaging in moderate physical activity, progressing to 30 minutes or more on most or preferably all days of the week.
- Cutting back on dietary fat can help reduce calories and is heart-healthy. But reducing dietary fat alone- without reducing calories-will not produce weight loss.
- The initial goal of treatment should be to reduce body weight by about 10 percent from baseline (starting weight), an amount that reduces obesity-related risk factors.
- A reasonable time line for a 10 percent reduction in body weight is 6 months of treatment, with a weight loss of 1 to 2 pounds per week.
- Weight maintenance should be a priority after the first 6 months of weight-loss therapy.
- Patients should utilize lifestyle therapy for at least 6 months before considering drug therapy.
- In carefully selected patients (BMI >30 without additional risk factors or BMI >27 with two or more risk factors) who have been unable to lose weight or maintain weight loss with conventional nondrug therapies, weight- loss drugs approved by the FDA for long-term use may be tried as part of a comprehensive weight loss program that includes dietary therapy and physical activity.
- During the weight maintenance phase of treatment, drug therapy may also be used. However, drug safety and effectiveness beyond one year of total treatment have not been established.
- Weight-loss surgery is an option for carefully selected patients with clinically very severe obesity-BMI of > 40 or BMI of >35 with coexisting conditions when less invasive

methods have failed and the patient is at high risk for obesity-associated illness. Lifelong medical surveillance after surgery is a necessity.

- Overweight and obese patients who do not wish to lose weight, or are otherwise not candidates for weight loss treatment, should be counselled on strategies to avoid further weight gain.[9,10]

Benefits of regular physical activity

Regular physical activity – such as walking, cycling, or dancing – has significant benefits for health. For instance, it can reduce the risk of cardiovascular disease, diabetes and osteoporosis, help control weight, and promote mental well-being.

Taking part in physical activity increases opportunities for socialization, networking and cultural identity. Physical activity has a positive influence on the community and society by promoting social interaction and cohesion.

Especially among children and young people, sports and other physical activities contribute to empowerment and self-confidence. Physical activity furthermore helps to prevent and control risk behaviour, such as the use of tobacco, alcohol and other substances, unhealthy diet and violence. Regular physical activity may also benefit communities and economies through increased productivity in the workplace; lower worker absenteeism and turnover; and better performance in schools. In many countries a significant proportion of health spending is due to the costs of managing common noncommunicable diseases that are associated with inadequate physical activity. Promoting physical activity can be a highly cost-effective and sustainable public health intervention.[7,8]

Active living benefits health at all ages. It is especially important to the healthy development of children and young people, and active ageing can make a dramatic difference to the well-being of older people. Having the opportunity to enjoy quality recreation is vital to the health and personal development of all individuals, regardless of gender, functional ability, cultural background, age or socioeconomic status.

Underweight

Doctors define a person as being underweight if they have a body mass index, or BMI, that is less than 18.5. Having a high metabolism, taking certain medications,

psychological problems, illness and being very physically active can lead to being underweight. Being underweight can increase your risk for osteoporosis, anemia, hair loss and fertility problems. It can stunt the growth of children and interfere with the functioning of your immune system.

12 steps to healthy eating

1. Eat a nutritious diet based on a variety of foods originating mainly from plants, rather than animals.
2. Eat bread, whole grains, pasta, rice or potatoes several times per day.
3. Eat a variety of vegetables and fruits, preferably fresh and local, several times per day (at least 400g per day).
4. Maintain body weight between the recommended limits (a BMI of 18.5–25) by taking moderate to vigorous levels of physical activity, preferably daily.
5. Control fat intake (not more than 30% of daily energy) and replace most saturated fats with unsaturated fats.
6. Replace fatty meat and meat products with beans, legumes, lentils, fish, poultry or lean meat.
7. Use milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt.
8. Select foods that are low in sugar, and eat free sugars sparingly, limiting the frequency of sugary drinks and sweets.
9. Choose a low-salt diet. Total salt intake should not be more than one teaspoon (5g) per day, including the salt in bread and processed, cured and preserved foods. (Salt iodization should be universal where iodine deficiency is a problem)
10. WHO does not set particular limits for alcohol consumption because the evidence shows that the ideal solution for health is not to drink at all, therefore less is better.
11. Prepare food in a safe and hygienic way. Steam, bake, boil or microwave to help reduce the amount of added fat.
12. Promote exclusive breastfeeding up to 6 months, and the introduction of safe and adequate complementary foods from the age of about 6 months. Promote the continuation of breastfeeding during the first 2 years of life.

Benefits of a balanced diet

- Opting for a balanced, adequate and varied diet is an important step towards a happy and healthy lifestyle.
- Vitamins and minerals in the diet are vital to boost immunity and healthy development,
- A healthy diet can protect the human body against certain types of diseases, in particular noncommunicable diseases such as obesity, diabetes, cardiovascular diseases, some types of cancer and skeletal conditions.

- Healthy diets can also contribute to an adequate body weight.
- Healthy eating is a good opportunity to enrich life by experimenting with different foods from different cultures, origins and with different ways to prepare food.
- The benefits of eating a wide variety of foods are also emotional, as variety and colour are important ingredients of a balance diet.

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LIST OF ABBREVIATIONS

AHAR – Annual Health Audit Report

BMI - Body mass index

BP - Blood pressure

CAB - Clinical, anthropometric and bio-chemical

CV - Coefficient of variation

Hb- Haemoglobin

ICMR- Indian council of medical research

IEC- InstitutionalEthics Committee

NFI- NutritionFoundation of India

PPM - Parts Per Million

PRSE - Percentage Relative Standard Error

PSU - Primary Sample Units

SD - Standard Deviation

TAG - Technical Advisory Group

UIP - Universal Immunization Program

WHO- WorldHealth Organization

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SREE NARAYANA COLLEGE
PUNALUR

MEDICAL CAMP

Place : College Auditorium

Date : 07.11.2019 to 8.11.2019.

Doctors Attended

1. Dr. Sunil. R,
2. Dr. Sumithra,

Medical Staff attended

1. Rakhi (H.N)
2. Rimi (S.N)

PRINCIPAL
SREE NARAYANA COLLEGE
PUNALUR

Dr. SHAHIRSHA.R
Reg. No: 19897
SUPERINTENDENT &
DEPUTY DIRECTOR
OF HEALTH SERVICES
T.H.Q. HOSPITAL
PUNALUR

SREE NARAYANA COLLEGE
PUNALUR

Sl No:	Name	Sex	Class (Department)	Admission
1	Haxaleedharan	M	Supt office	
2	Haji	F	office staff	
3	Anakha. S	F	3rd yr BSc Physics	35834
4	Parvathy. S	F	3rd yr BSc Physics	35455
5	Kavya Manu	F	3rd yr BSc Physics	35797
6	Aswin. S	M	3rd yr BSc Maths	35701
7.	Arya Suresh	F	3rd yr BSc Physics	35894
8	Vaishnavi C.S	F	3rd yr BSc Physics	35852
9.	Athulya Babu	F	3rd yr BSc Physics	35832
10.	Saranya. S. Nair	F	3rd yr BSc Physics	35802
11.	Aneha. V. S	F	3rd yr BSc Physics	35893
12.	Raveena. B. Rajeev	F	3rd yr BSc Physics	36023
13.	Kunjumon. S	M	Office staff	
14.	Athulya. V	F	3rd yr BSc Physics	35469
15.	Athulya. Suban	F	3rd yr BSc Physics	35470
16.	Praveena. P.J	F	3rd yr BSc Zoology	35845
17.	Surya. R	F	4th yr BSc Zoology	36520
18.	Jagadeesan. R. S	M	4th yr BSc Physics	35477

Weight/Height S/No	BMI	Pause	BP mm/Hg	Blood group	RBS (mg/dL) / FRBS (307 mg/dL)	Hb level	Medical Remarks	Sign
H-164.5 W-68 kg	25.9 kg/m²	64	218/106			11.1		
H-156 cm W-40 kg	16.4	84	98/63	O+ve	82 mg/dL	10.8		
H-145.5 W-46.2	21.8	83	114/60	O+ve	84 mg/dL	11.7		
H-149.5 W-40.5		106	108/64	O+ve	92	9.6		
H-157 W-52	21.1	65	104/60	A+ve	87	10.3		
H-154.5 W-48	20.1	86	108/68	O+ve	90	10.7		
H-160 W-46	18	85	106/74	O+ve	80	9.5		
H-151.5 W-44.5	19	81	100/60	O+ve	86	9.9		
H-154 W-45	19	76	105/70	O+ve	90	10.1		
H-156.5 W-47	19.2	80	122/70		80	9.4		
H-156.5 W-70	28.6	85	116/64	A+ve	76	10.3		
H-153 W-48.5	18.6	85	110/68	B+ve	80	11.7		
H-158 W-74	29.6	84	132/90		83	10.6		
H-158.5 W-55	21.9	87	105 /86	A+ve	62	9.8		
H-162 W-54	20.6	84	132/82	A+ve	81	11.3		
H-165 W-42	15.4	78	100/78	O-ve	86	7.2	Anaemic	
H-159 W-36.7	14.5	86	108/70		85	10.4		
H-151 W-45	19.7		108/58	B+ve	83	9.8		

NARAYANA COLLEGE PUNALUR

MEDICAL CAMP

Place: College Auditorium

Dates: 14.01.2021 to 15.01.2021.

Doctors Attended

1. Dr. Sunil.R.

2. Dr. Siny.

Medical staff Attended

1 Suhara Navas (SN)

2. Sreevidya (SN)

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Dr. SHAHIRSHA.R
Reg. No: 19897
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DEPUTY DIRECTOR
OF HEALTH SERVICES
T.H. HOSPITAL
PUNALUR

Sl No.	Name	Sex	Class (Department)	Adm. No.
1	Akash. S	M	II nd year Zoology	36166
2	Anakha. P.S	F	"	36623
3	Anaswara Ramesh	F	"	36346
4	Devika Mohan	F	"	36408
5	Devu Brahmajan	F	"	36154
6	Ganesh. T.R	M	"	36523
7	Keerthana. S.S	F	"	36528
8	Ullas Babu	M	"	36163
9	Abhiram G Udayan	M	"	36111
10	Akash B.A	M	"	36610
11	Ashna Muhammed	F	II BSc Physics	36558
12	Abhishek Biju	M	"	36660
13	Adarsh. B.S	M	"	36289
14	Saran R	M	"	36361
15	Sruthy. S	F	"	36274
16	Hari Govind. S.M	M	"	36106
17	Rajalekshmi R	F	"	36453
18	Varsha Sujan	F	"	36633

ght/ ight	Pulse	BP mm/Hg	Blood Group	RBS	BMI	Hb level	Remark	Sign
173 70	62	116/64	A+ve	102	23.4	10.6		
161 48.5	80	128/52	B+ve	92	18.7	11.4		
165 57	88	130/62	B+ve	100	20.9	12.1		
164 85	86	100/60	B+ve	96	31.6	8.7		
153 67	82	98/62	B+ve	93	24.3	7.9		
158 50	90	118/84	O+ve	95	20.0	9.4		
157 57	93	100/64	A+ve	100	23.1	9.7		
156 65	100	136/94	B+ve	106	26.7	10.1		
150 48.6	96	100/69	B+ve	98	21.6	11.3		
153 54	88	120/70	O+ve	93	22.8	10.8		
173 66.8	84	130/70	AB+ve	101	22.3	10.7		
157 55	62	110/63	A+ve	97	23.3	9.9		
154 50	81	118/72	A+ve	96	21.2	9.4		
174 63.5	83	120/76	B+ve	98	21	8.9		
152.5 42	90	109/68	B+ve	92	18.1	8.6		
170 56.8	78	110/70	A+ve	94	19.7	8.1		
171 68.7	84	104/68	A+ve	100	19.4	8.8		
146 39	98	118/66	B+ve	97	18.3	8.3		

MEDICAL CAMP

Place: College Auditorium

Dates: 6.01.2022 to 7.01.2022.

Doctors Attended

1. Dr. Sreekanth.

2. Dr. Sanjay.

Medical staff attended

1. Athira (SN)

2. Remya (SN)

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PUNALUR

SREE NARAYANA COLLEGE
PUNALUR

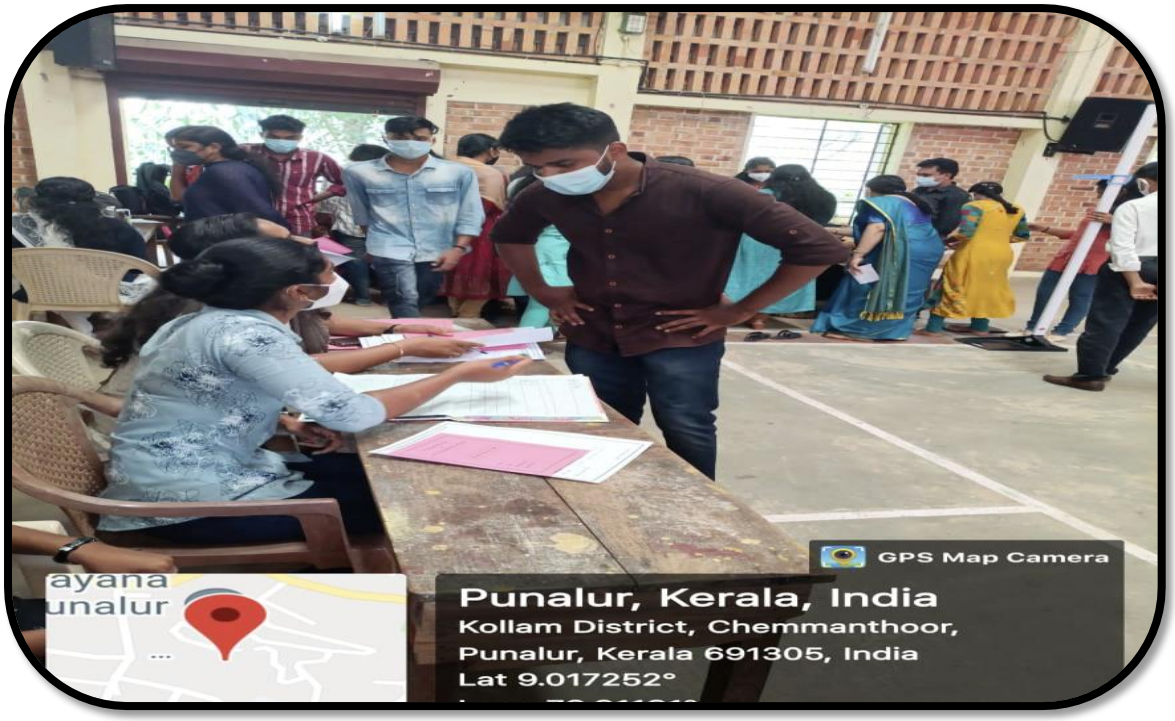
I Year 202

57

Sl No	Name	Sex	class & Department	Admission No
1	Akhila · S	female	I st year MA History	37281
2	Ameena · S	F	"	37354
3	Sreelekshmi Babu	F	"	37377
4	Vinitha · R-S	F	"	37288
5	Sharon · K · Mathew	F	"	37231
6	Keerthi · A	f	"	37312
7	Lekshmy priya · K	f	"	37268
8	Silpa Raj	f	"	37264
9	Thasna · B	f	"	37266
10	Joemol · B	f	"	37378
11	Aparna · AP	F	"	37371
12	Athira · T	f	"	37370
13	Naufal · N	M	"	37350
14	Abin Johnson	M	"	37340
15	Rajesh · R	M	"	37274
16	Aswin · UV	M	"	37290
17	Arya · Anil	F	"	37199
18	Mumthas · K	F	1st yr · BA · Economics	
19	Shabana · I	F	1st yr · M.A History	37201
20	Sandeep · S	M	1st yr · BA Economics	37090
21	Parvathi · J · S	F	1st yr · Bsc · Chemistry	37074
22	Akhilash · S	M	1st yr · Bsc · Zoology	36716

Ht / Wt	Pulse	BP	Blood group	RBS mgdl	BMI	Hb level	Remark	Signature
H-150 W-37.3	89/mt	98/78 mm	O+ve	84	17	13.1		
Ht-157 W-52.8	74/mt	108/74	B+ve	109	21.4	12.3		
H-158 W-53.5	114/mt	122/76	A+ve	99	21.4	11.9		
Ht-152.5 W-47.8	90/mt	86/60	O+ve	80	20.6	12.1		
H-153 W-52.4	100/mt	110/72	O+ve	101	22.4	13.3		
H-156 W-40	90/mt	108/74	A+ve	98	16.4	10.9		
Ht-152 W-43	100/mt	100/74	A+ve	91	18.6	12.3		
H-170 W-102	84/mt	164/74	B+ve	97	35.3	10.1		
H-163 W-60.9	85/mt	102/64	O+ve	96	22.9	10.7		
H-148 W-35	94/mt	132/78	AB+ve	95	16.0	11.5		
H-156 W-44.7	106/mt	118/69	B+ve	78	18.4	10.3		
H-157 W-58.3	84/mt	94/64	O+ve	83	23.7	11.7		
H-176 W-61	98/mt	134/76	B+ve	89	19.7	9.8		
H-160 W-51	114/mt	130/89	B+ve	93	19.9	10.7		
H-163 W-58	87/mt	136/82	A+ve	94	21.8	13.1		
H-175 W-72.7	86/mt	112/74	A+ve	96	23.7	9.8		
H-153 W-43	78.75/mt	134/116	A+ve	98	18.4	8.9		
H-146 W-57	90/mt	104/70	A+ve	79	90	11.3		
H-161 W-41	100/mt	120/70	B+ve	92	15.8	12.7		
H-169.5 W-61.9	82/mt	112/72	A+ve	A+ve 90	21.5	13.5		
H-165 W-58	83/mt	120/70	O+ve	93	21.3	13.0		
H-178.5 W-70	72/mt	120/72	B+ve	89	23.3	12.7		

Health Parameters Data Collection




OMRON
GPS Map Camera
Punalur, Kerala, India
Kollam District, Chemmanthoor, Punalur, Kerala
691305, India
Lat 9.017227°


GPS Map Camera
Punalur, Kerala, India
Kollam District, Chemmanthoor,
Punalur, Kerala 691305, India
Lat 9.017268°
Long 76.911829°


Contour plus
GPS Map Camera
ayana
unalur
Punalur, Kerala, India
Kollam District, Chemmanthoor,
Punalur, Kerala 691305, India
Lat 9.017278°
Long 76.91181°

Health Card issue to students

TALUK HEAD QUARTERS HOSPITAL, PUNALUR
&
S.N. COLLEGE PUNALUR

STUDENT HEALTH RECORD

Name : Admission No. :

Class : Year of admission :

Home Address : Department :

Age :

Sex :

Marital Status : Married ☐ Unmarried ☐

Height :

Weight :

BMI :

Pulse :

BP :

Blood Group :

RBS (Random Blood Sugar) :

Hb level :

Medical History , if any :

Treatment Details :

Consulting Hospital :

Recent Health Issues noted if any :

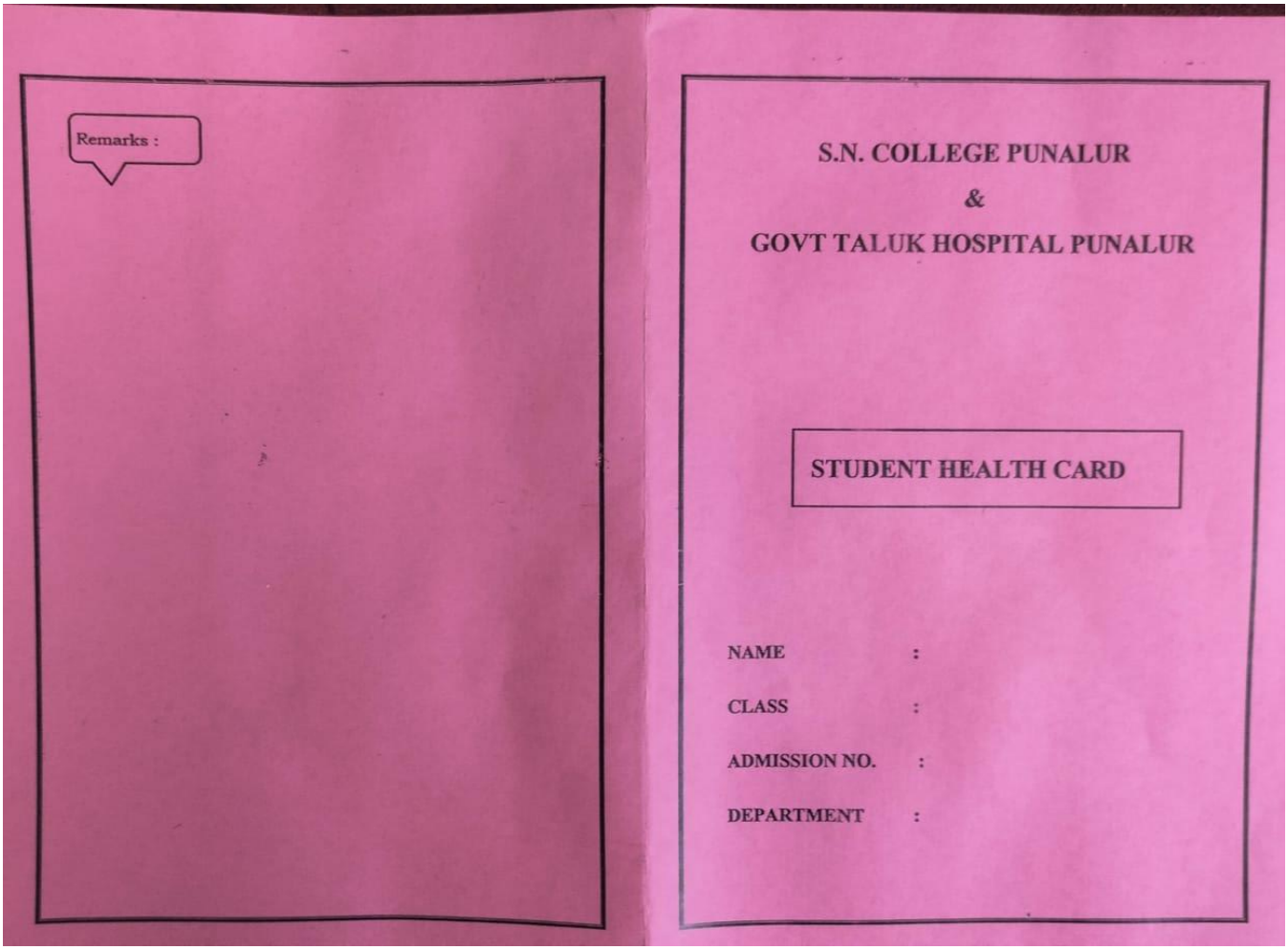
VACCINATION STATUS :

DPT Vaccine : Yes ☐ No ☐ BCG : Yes ☐ No ☐

Polio Vaccine : Yes ☐ No ☐ Covid 19 Vaccine : Yes ☐ No ☐

Report of Medical Officer :

Signature of Medical Officer


Remarks :
S.N. COLLEGE PUNALUR
&
GOVT TALUK HOSPITAL PUNALUR
STUDENT HEALTH CARD
NAME :
CLASS :
ADMISSION NO. :
DEPARTMENT :

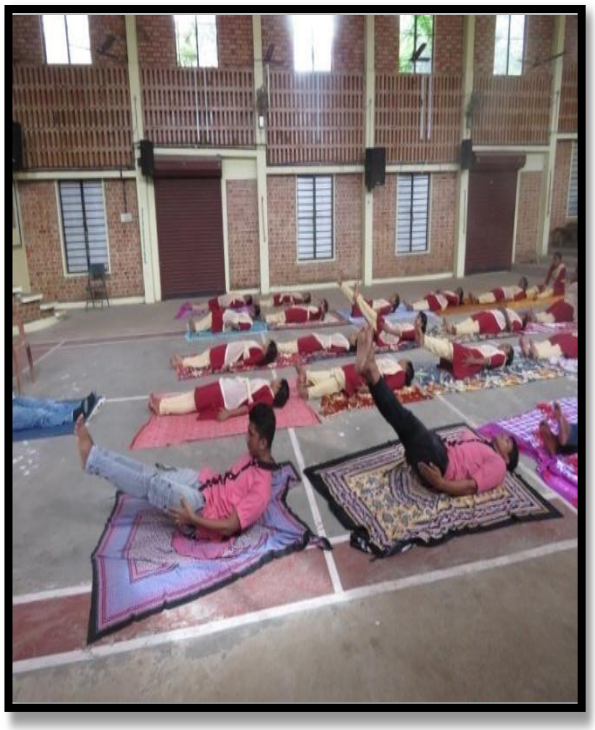
Health card

Physical Health

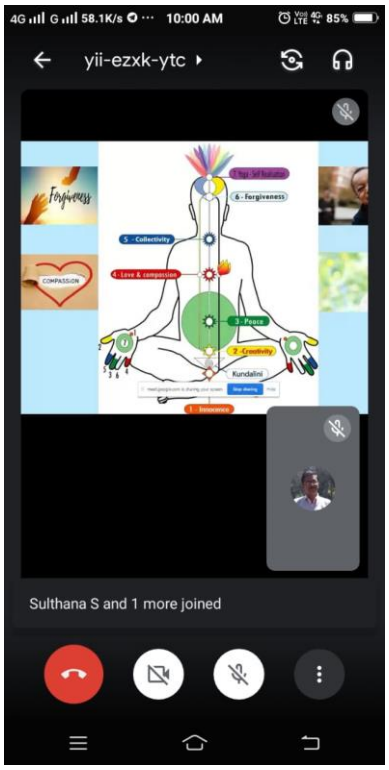
Students hailing to the campus by foot

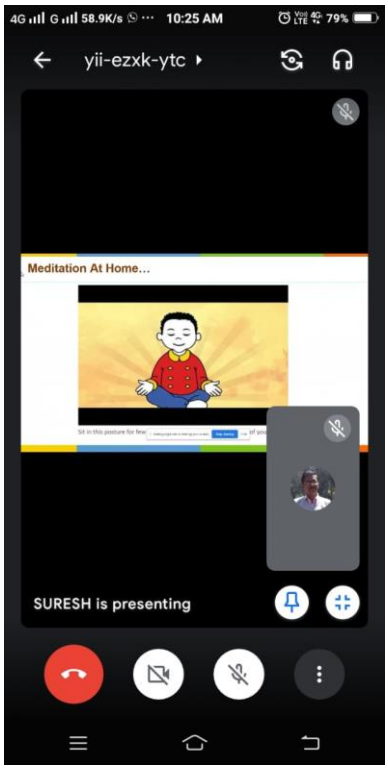
Open gymnasium

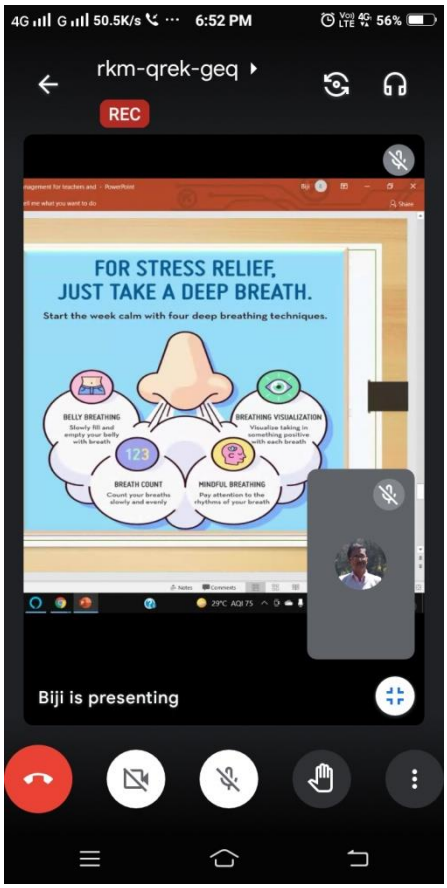
Mental Helth



Counselling session


yii-ezxk-ytc
Forgiveness
6 - Forgiveness
5 - Collectivity
COMPASSION
4 - Love & compassion
3 - Peace
7 - Creativity
Kundalini
1 - Innocence
Sulthana S and 1 more joined


yii-ezxk-ytc
Meditation At Home...
SURESH is presenting


rkm-qrek-geq
REC
FOR STRESS RELIEF,
JUST TAKE A DEEP BREATH.
Start the week calm with four deep breathing techniques.
BELLY BREATHING
BREATHING VISUALIZATION
BREATH COUNT
MINDFUL BREATHING
Biji is presenting


rkm-qrek-geq
REC
Stress
Management
STRESS
Therapy
Music
Spa
Time
Management
Exercise
Nature
Hobby
Yoga
Meditation
Biji is presenting

Social Health

Visit at Old age home

Planting tree saplings

Distribution of food amenities during flood

Distribution of kits to elderly peoples

Activities of palliative care

Drive against Covid– 19 by NCC

Spiritual Heath

College prayer – an invocation to spirituality

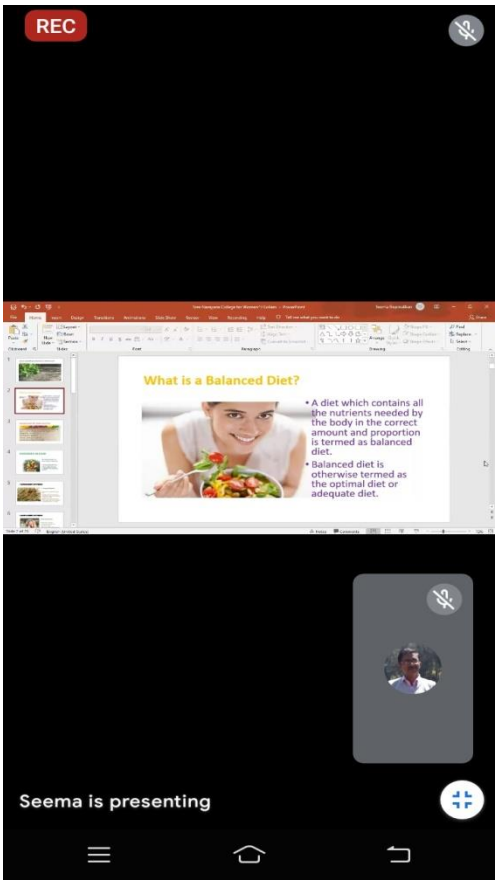
Organic Farming

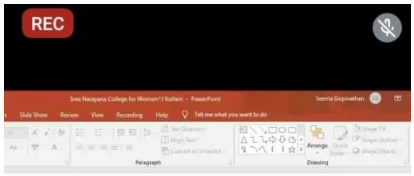
Hygiene

Distributing sanitizer

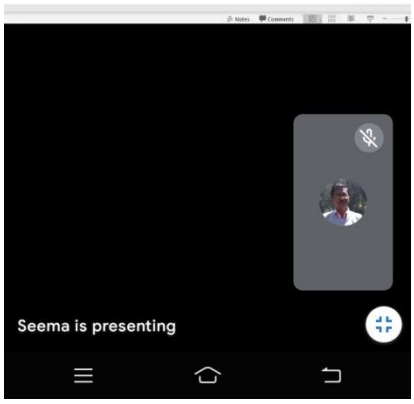
Distribution of face masks

Nutrition Awareness programmes




REC


Tips for improving immunity
Add more of fresh fruits and veggies in your diet
Consume water at regular intervals
Replace junk foods with healthy snacking. Include more of steamed/boiled food items instead of baked/deep fried ones
Prefer more of home-made foods to bakery buys
Exercise especially deep breathing exercise


Seema is presenting

PHYSICAL EDUCATION

OPEN COURSE TITLE & CODE : HEALTH AND FITNESS EDUCATION (PE 1551)

Syllabus

Module: 1. Introduction to Physical EducationandHealth

- Meaning, Definition, Objectives and Importance of Physical Education.
- Concepts of Health & Physical Education
- Meaning, Definition and Dimensions of Health (Physical, Mental, Social, Spiritual and Emotional)
- Factors Affecting Health (Biological, Personal, Environmental & Socio-cultural factors)

Module: 2. Scientific Basis of Physical Activity

- Benefits of Exercises
- Effects of Exercises on Circulatory and Respiratory System.
- Heart Rate, Blood Pressure & Body Mass Index
- Types of Exercises (Aerobic & Anaerobic Exercises)
- Body Types (Endo morph, mesomorph, ectomorph)

Module: 3. Exercise and Fitness Training

- Physical Fitness- Health Related physical Fitness and Performance Related Physical Fitness
- FITT Principles (Frequency, Intensity, Time and Type of Exercise)
- Exercises for improving Speed, Strength, Endurance, Flexibility and Co-coordinative abilities)
- Hypo-Kinetic diseases, causes and their management (Diabetes Mellitus, Obesity, Hypertension, and Coronary Heart Diseases (CHD).
- Exercise Prescription

Module: 4. Nutrition, First Aid and Posture

- Balanced Diet, Malnutrition and Deficiency Diseases
- First Aid and Principles of First Aid
- First Aid measures for the following –
  Bleeding through Nose, Snake Bite, Dog Bite , Electric Shock, Burns and Drowning
- Common injuries and their management
  Wounds, Cuts, Sprain, Fractures and Dislocation
- Posture and its importance
- Common Postural Deformities, Causes and their Remedial Measures. (Kyphosis, Lordosis, Scoliosis, Knock-knee, Bow legs and Flatfoot.)

Module: 5. Yoga and Stress Management

- Meaning and benefits of yoga
- Eight limbs of Yoga (Ashtanga Yoga)
- (Yama, Niyama, Asana, Pranayama,Pratyahara, Dhyana, Dharana, and Samadhi)
- Asanas and its importance (Padmasana, Vajrasana, Paadahasthasana, Vrikshasana, Halasana, Pavanamukthasana, Bhujangasana, Poornasalabhasana, Ardhamatsyendrasana, and Shavasana)
- Management of Stress.

Suggested Readings:

1. Bucher.C A.(1979) **Foundation of Physical Education** (5^{th} ed.) Missouri:C.V.Mosby co.
2. Barrow,H.M.(1983). **Man and Movement: Principles of Physical education**. Phi:Lea and Febiger
3. Corbin, Charles .B.et.al. C .A (2004). **Concepts of Fitness and Welness**. Boston,McGraw Hill.

4. Ramachandran, Anil (2011). **Handbook of Health , Fitness and Wellness**. Akademia Publications, Calicut, Kerala.
5. Sekhar, K.C.(2004), **Principles and History of Physical Education**., Delhi, KhelSahitya Kendra.
6. Young, D.C., (2004) **A Brief History of Olympic Games**. U.K., Blackwell Publishing.
7. Puri& Chandra S S.(2005) **Health and Physical Education**, Surjeet Publications, New delhi.
8. William J E. (1964) **Principles of Physical Education**, W.B.Sounders, Philadelphia.
9. Kamalesh M .L.(1998), **Physical Education: Facts and Foundations**. P.B. Publicationc.
10. Ajmeer Singh, et. Al,(2001) **Modern Text book of Physical Education, Health & Sports**. Kalyani Publishers, New Delhi.
11. James, Rob, Thompson and James, (2007). **Complete A-Z Physical education Handbook**. Hodder and Stoughten, London.
12. Manoj K. P & Suresh Kutty.,K.(2011), **Physical Activity, health and Wellness**, University of Calicut.
13. Shaida, B .D &Shaida A K. (2000). **Health and Physical Education**. Arya book depot.
14. Jenson,Dr.Bernard,(2000). **Nutrition Handbook**, Viva Books Pvt.Ltd., New Delhi.
15. Reddy .R.S., **Teaching Health and Nutrition**, Commonwealth Publishers, N .Delhi.
16. Watson, A WS. (1995), **Physical Fitness and Athletic Perfromance**. Longman Publishing Company, NewYork.
17. Thomas, David Q and Kotecki, Jerome, Jones and Barlett: Masachussettes,(2007). **Physical activity and Health-an interactive approach.**
18. Singh , Ajay (2007). **First Aid and Emergency Care**. N .R. Brothers, Indore
19. St. John's & St. Andrew's Ambulance Association and British Red Cross.(2002). **First Aid Manual**. DK, London.
20. George Agustine,(2019) Health and Fitness Education, Prathibha Publications, Changansseery