A COMPARATIVE STUDY OF THE NUTRITIONAL STATUS AMONG COLLEGE STUDENTS FROM INDIA AND COMOROS

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Abstract: The state of a person's health it of the nutrients in his diet. college students are in the stages of completion of growth and sexual maturation, the positive health of this population is essential for the proper development of a country. This study entitled as "A **comparative study of the Nutritional status among college students from India and Comoros**" discussed with 199 selected subjects from both Comoros (Moroni) and India (Tamil Nadu). A questionnaire was prepared to collect basic information such as anthropometric measurement, nutritional status, socio-economic, physical activity, dietary pattern, reproduction history and healthy history The investigation found that the selected population in India are richer than Comoros. Comoros population having more junk foods and processed foods instead of healthy foods habit (59.8%). It may be the reason (43.9%) are overweight of Comoros college students. About (49%) of Comoros selected people are suffering from anemia. More of 92.4% of India students do physical activity and 89.2% of Comoros which is the majority of the population don't do physical activity which may be the cause of the of female Comoros selected student are suffering from irregular period problem specially (PCOD&PCOS) diseases.

KEY WORDS: Nutritional assessment, college students, overweight, anemia, irregular period, malnutrition

I. INTRODUCTION

The health and well-being, ability to work and learn depend on how good we are nourished. Good nutrition or nutritional status is the many different factors. Direct factors such as access to safe, unexpensive and nutritious food, dietary habits, the food choices they make, were indirect factors effecting the nutritional status are their knowledge of the people such as, attitude and practice regarding eating habit socio economic status and life style practices like physical activity, stress. For the college students most of the students live in hostels or rent houses without their family which has strong impact on their Nutrition and health (*Mohammed, S.et al., 2000).*

Nutritional status could be defined as the combination of an people well-being as influenced by consumption and utilization of nutrients and determined from information obtained by physical, biochemical and dietary studies Eating habits refers to why and how people eat, which foods they eat and with whom they eat, as well as the ways people obtain, store, use and discard food *(Rodriguez CJ et al.,2014.)*

The prevalence of overweight and obesity has increased in nowadays in many countries it is due to the consumption of junk food which are Hight in oil and sodium. It is also well-cited in the literature that obese individuals are more prone to psychosocial problems such as more stress, loneliness, decrease of self-confidences. *(Neumark-Sztainer, et al,.2007)*

Malnutrition is a state resulting from a r deficiency or wrong proportion of essential nutrients. Comoros college students is malnourished, thus violating their human rights and are more likely to have low capacity of studies, poorer health, due to unhealthy diet which will cause chronic diseases (*Akinyemi et al.,2009).*

The malnutrition of college population in Comoros is not only due to socio-economic but also to the consumption of more junk food as more of them eat outside their home due to lack of time.

II. MATERIALS AND METHODS:

1. SELECTION OF AREA

Selection of the area for this study was the Convenience of conducting the study by the researcher. Both Tamil Nadu: Coimbatore, and Moroni Comoros was selected for this investigation.

2. SELECTIONS OF SAMPLE

Selected population for this investigation was on college students among both countries. This study was carried out in students (males and females) among age group of 18-24 years and, during the month of January and March 2022. Random Sampling Method was used to conduct the survey method. The total of 199 samples were included from both countries through well designed questionnaire. Online interview method and face to face method used for collecting the data. The questionnaires included sections as general information and socio-economic status, life style pattern, dietary pattern, clinical and physical assessment for collecting the data. Inclusion criteria of this study was based on the age of 18-24 years old people, below 18years and above 24years old was considered as exclusion criteria.

3. FORMULATION OF THE QUESTIONNAIRE

A structured questionnaire was formulated included personal information, socio economic status (education level and occupation), nutritional assessment (life style, dietary assessment, clinical and physical evaluation), and a Google form schedule was created and used for the data collection.

4. Data collection

A well-designed questionnaire was using the collection of data. For the data collection google form, face to face interview method adopted for the investigation. Then the data was collected according to their respective responses.

a. Demographic Data

Three parameters were used for anthropometric measurement: height (cm), weight (kg), Body Mass Index

$$BMI = \frac{\text{Weight of the individual in kilogram}}{\text{Square of Height of the individual in meter}}$$

5. Health History and clinical assessment

Clinical assessment has always been a widely utilized, practical direct method for assessment of nutritional status of individual and communities in relation to the food they consume (Van Guilder, M.et al., 2001). When two or more clinical signs and characteristics of a deficiency disease are present simultaneously, their diagnostic significance is greatly enhanced (Srilakshmi, B. (2006).).

Details on the presence of health complications like anemia, diabetes, digestive problem (gas, constipation), obesity, cardiac disease, kidney complications, underweight, Bleeding gums Bruising, Chewing or swallowing, anemia, Edema, thyroid, and seeing in dim light
among all the subjects both Comoros and India were recorded.

6. NUTRITIONAL ASSESSMENT

Nutritional assessment is the process of identifying characteristics known to be associated with malnutrition. It is done by the interpretation of information from dietary. anthropometric and clinical studies. Nutritional assessment can be conduct from different way: survey, surveillance, screening.

III RESULTS AND DISCUSSIONS:

The results of the study on **"A comparative study of the Nutritional status among college students from India and Comoros"** are analysed and the findings are presented and discussed under the following headings:

1. Gen1eral information of the selected population.

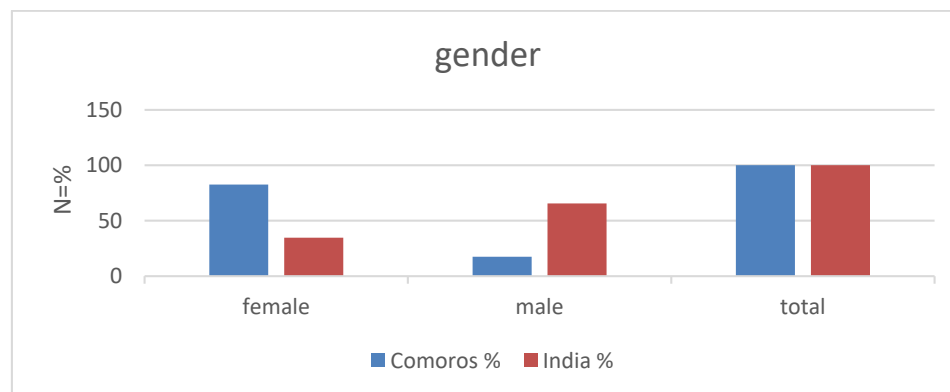chart.1 gender of the selected population

chart.1 is the gender of Comoros and India college students which 86.6% of Comoros students are female and 17.4% are male, and it is also indicate that the majority of students in India with the selected sample are female 65.4% and male are 34.6%.
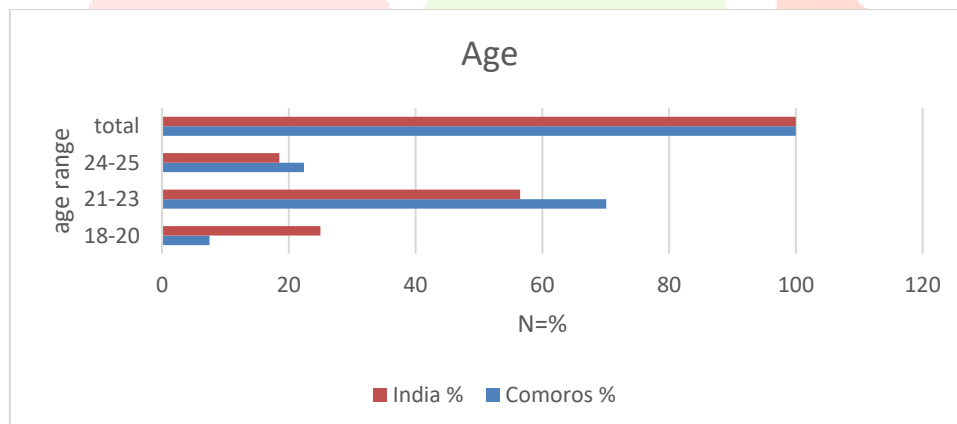
Chart.2 age of the selected population

chart.2 indicates that majority of both Comoros and India students belong to the age of 21-23years with (70.1%) of Comoros students and 56.5% for India students. 22.4% of the Comoros students were in the age group of 24-25 years and minimum (7.5%) of the selected were in the age group of 18-20 years. And 25.0% of India students were in the age group of 18-20years and the minimum 18.5% of the selected were in the age group of 24-25years.

Table.1 Family income(monthly)

Family income In rupees	Comoros %	India %
<55000	43.9	10
5500-65000	19	25
66000-70000	22	44.6
>70000	15.1	20.4
Total	100.0	100.0

The table.1 indicates that out of 100% of respondents who participated in the study, the majority of Comoros subject (43.9%) have income of <55000 rupees and minority of 10% India subject have that family size. And 44.6% of India subject which is the majority having family monthly income of 66000-70000 rupees and 15% of Comoros belong to that group. And 19% of Comoros and 25% of India subject are having income of 55000-65000 rupees. While the minority of Comoros (15.1%) are in the income of >70000 rupees and India subject are in 20.4%.

2. Nutritional assessment.

Table.2 Body max index

BMI	Comoros %	India %
Underweight (<18.5)	15.0	16.3
Normal (18.6-24.9)	41.1	65.2
Overweight (25-29.9)	43.9	18.5
total	100.0	100

BMI is the most used method for anthropometric measurement all over the world.

Table.2 indicates that 41.1% of Comoros and 65.2%India of the selected subjects have normal BMI, 15% Comoros and 16.3% India of the subjects were underweighted, while 43.9% Comoros and 18.5% India of the subjects were overweight.

Table.3 Regular Eating place

responses	Comoros %	India %
home	36.4	70.7
restaurant	63.4	5.4
college canteen	0	23.9
Total	100.0	100.0

In table.3 result show that around (36.4-70.7%) of the selected population which are Comoros and India college students are regularly take there are meals at home where the majority are Indian student. (63.4-5.4%) of the population that are selected are eating at restaurant which the majority are Comoros student. India students are about (23.9%).

Table.4 frequency of eating junk food

Junk food	Comoros	India
	%	%
frequently	58.9	13.0
weekly	35.5	45.7
monthly	5.6	41.3
Total	100.0	100.0

In the above table.4 the majority (58.9%) of Comoros student had junk food frequently when India is about only (13%). And 45.7% of India population consume junk food weekly, and 35.5% Comoros population. minority (5.6%) of Comoros use junk food monthly and (41.3%) of Indian population.

3. **Clinical assessment**

Table.5 Medical condition

Medical condition	Comoros	India
	%	%
appetites	12	3.3
bleeding gums	-	5.4
constipation	2	14.1
anemia	49	1.1
seeing in dim light	10	1.1
nil	26	75.0
thyroid	1	-
Total	100	100.0

table.5 indicates that majority (49%) Comoros having anaemia and only (1.1%) India of the subjects suffer to this condition. 75% of India of subjects and 26% Comoros are is good health condition, (0%) Comoros and 5.4% India had bleeding gums, (2%) of Comoros and (14.1%) of India had constipation, and (10%) Comoros and (1.1%) India had seeing in dim light. For appetites disease (12%) Comoros selected population and (3.3%) of India are having it.

Table.6 Digestive health

responses	Comoros			India		
	%			%		
	Often	Sometimes	rarely	Often	Sometimes	Rarely
Heartburn	5.4	35.9	58.7	4.7	47.7	47.7
Gas	5	51	44	6.2	35.9	57.6
Bloating	4.7	48.6	46.7	66.3	6.5	27.2
Stomach Pain	3.7	36.4	59.8	6.5	40.2	53.3
Nausea/Vomiting	5.6	46.7	47.7	10.9	33.7	55.4
Diarrhea	3.7	36.4	59.8	3.3	37.0	59.8

Table 9 describes that (58.7%) Comoros and (47.7%) India student having rarely heartburn the only. (58.7%) Comoros and (47.7%) India and the minority which is the remained have sometime and often.   Same table shows that Comoros and Indian students (44%57.6 percent) having Gas rarely and (51&35.6) had gas often and only (5&6.2%) of Comoros and India student got gas often. This finding shows result of stomach pain with the selected population majority are rarely in this symptom with (59.8-53.3%) of Comoros and India. The minority of Comoros and India students are having stomach pain often with (3.7-6.5%). and only (36.4-40.2%) are having stomach pain sometime This shows also that the selected population majority (47.7-55.4%) of Comoros and India are rarely have nausea and vomiting. The minority of Comoros and India students had often with (5.6-1.9%). and (66.7-33.7%) are having this symptom sometime. For the diarrhea symptom like the above symptom the majority (59.9-59.8%) of Comoros and India are rarely had diarrhea and (36.4-37.0%) of Comoros and India are sometime and the minority of Comoros and India (3.7-3.3) are often.

4. Reproduction history

Table.7 irregular menstrual cycle

responses	Comoros	India
	%	%
Hormonal imbalances	10.5	81.9
Pcod& pcos	89.5	18.1
total	100.0	100.0

Table.7 show that most the irregular period (89.5%) of Comoros student is due to PCOD & PCOS while only (18.1%) of India student have this problem. And the (81.9%) of India students are having hormonal Imbalances that cause the irregulating of their period and only (10.5%) of Comoros.

Table.8 Activity and Exercise History

responses	Comoros	India
	%	%
yes	10.8	92.4
no	89.2	7.6
Total	100.0	100.0

The result of the above table shows that 10.8% of Comoros and 92.4% of India students do physical activity and 89.2% of Comoros, 7.6% of India college students do not do exercises.

IV CONCLUSION:

The study observed that college students in Moroni district of Comoros have high nutritional inadequacy when compared with students in residence in southern state of Tamil nadu, India. The investigation found out that Dietary pattern of Moroni people is following high junk foods and processed foods. Most of Comoros's college are suffering from anemia as they don't take food that contain more micronutrients. The overweight and obesity of this population is causing by more factors such as low socio-economic background who cannot afford the expensive of health food, lack of time cause students to eat outside their house and reduction of physical activity.

III.   ACKNOWLEDGEMENT:

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