BMI SURVEY IN SELECTED VILLAGES OF FOUR DISTRICTS OF ANDHRA PRADESH

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Abstract:
A survey on BMI in selected villages of four districts of Andhra Pradesh was conducted which mostly are slum areas, where urban amenities and services does not reach depriving them of the basic civic facilities like water supply, hygienic sanitation, scientific drains, electricity, housing LPG Gas Cylinders etc., there by leading to urban conglomeration and outspread of various communicable diseases to humans settling in those areas affecting the BMI.

Following measures of personal, surroundings hygiene can reduce many communicable diseases to the people living in this type of sensitized conditions. Awareness on preventive measures and treatment of communicable diseases at budding stages was emphasized to the people so as to maintain optimum BMI which is a measure of good health?

Keywords: BMI, hygienic sanitation, communicable diseases

1. INTRODUCTION:

BMI (Body Mass Index) is fairly a reliable inexpensive, easy to perform method to indicate body fatness in relation to weight for most people. It is calculated from a person's weight multiplied by height square. "Overweight" and "obesity" signify a range of greater weight than what should be normal for individuals and it is now being considered as a disease which is usually associated with health problems, risks and other co-morbidities like diabetes, hypertension, dyslipidemias and cardiovascular disease.

Fueled by economic growth, industrialization, mechanized transport, urbanization, an increasingly sedentary lifestyle, and a nutritional transition to processed foods and high-calorie diets over the last 30 years, many countries have witnessed the prevalence of obesity in its citizens double and even quadruple times. A rising prevalence of childhood obesity, in particular, forebodes a staggering burden of disease in individuals and healthcare systems in the decades to come. A complex, multifactorial disease, with genetic, behavioral, socioeconomic, and environmental origins, obesity raises the risk of debilitating morbidity and mortality.

Environmental hygiene plays a major role and protects us from poor health. Personal habits such as washing hands, bathing, brushing, flossing, may all look monotonous and boring, but they all come under important personal hygiene. They make feel good and reduce bacteria, viruses and illness. Clean air, stable climate, adequate water, sanitation and hygiene, safe use of chemicals, protection from radiation, healthy and safe workplaces, sound agricultural practices, health-supportive cities clean environments, and preserved nature all come under Environmental Hygiene. The failure of Environmental hygiene leads to the spread of Communicable diseases, that spread from one person to another through a variety of ways that

include: contact with blood and bodily fluids; breathing in an airborne virus; or by being bitten by an insect which has its drastic effect on BMI of individuals. Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder, bipolar disorder are some of the diseases associated with under and excess feeding.

2. METHODOLOGY

To study BMI ranges in different sexes, age groups of people living in selected villages of four districts of Andhra Pradesh. BMI body mass index is a measure of how much body mass an individual has according to his weight and height. To calculate your BMI, simply divide your weight in kilograms by your height squared in meters.

While measuring BMI, weight was measured manually by weighing machine and hight was measured by anthropometric centimetre measuring tape keeping the person's body in a plane positioned at 90° angle against a wall. Alternate method is to find the results instantly by entering the height and weight data in online BMI calculators.

10 Scholars collected data of 22-23 on an average subjects 5 villages. So total number of subjects are 47 males, 49 females, 84 first child, 35 second child, 10 third child.

Data was collected on weekly basis from household members of the selected areas with regular periodical updating of each and every parameter.

Table 1   Profile of the selected villages of four districts of Andhra Pradesh are as follows:

S.No.	Name of the Study area	Mandal	District
1	Yerna Gudem	Devarapalli	East Godavari
2	Visweswarayapuram	Malkipuram	Konaseema
3	Ajjampudi	Gannavaram	Krishna
4	Vijayawada	Vijayawada	NTR District
5	Mylavaram	Mylavaram	NTR District

Selected villages of four districts of Andhra Pradesh

Table 2:   Profile of socio-economic status of selected villages

S.No	Name of the Village	Rich People%	Middle Class%	Poor People%
1.	Yerna Gudem	30%	40%	30%
2	Visweswarayapuram	10%	90%	0%
3	Ajjampudi	10%	50%	40%
4	Vijayawada	10%	50%	30%
5	Mylavaram	10%	60%	0%
	Total	**14%**	**58%**	**20%**

Table 2-- Illustration of the above data depicts that 14% are upper class, 58% are middle class and 20 % comes under low economic status**.**

Table 3

Subjects	Rich People%	Middle Class%	Poor People%
Total	**14%**	**58%**	**20%**

Table 4   Health status of selected villages

S.NO	Chronic diseases	Free of chronic disease
Number	14	155
%	8.28%	91.71%

Table 4- The above data portray that 8.28% of households are suffering from chronic disease. Whereas 91.71% are with free from chronic diseases.

Table 5   Grading of Obesity in Males based on BMI of selected subjects.

S.No.	Grade I	Grade II	Grade III	Not Obese <25	Under Weight <18
No.	10	3	2	32	0
%	28	6	4	64	0

Table. 5 shows males in all study sites, 28% are comes under Grade I, 6% are Grade II, 4% are Grade III, 64% under not obese and no one is under weigh.

Table 6: Grading of Obesity in Females based on BMI of selected subjects.

S.No.	Grade I	Grade II	Grade III	Not Obese <25	Under Weight <18
No.	12	7	1	24	5
%	24	14	2	48	10

Table 6: Females in all households, 24% are comes under Grade I, 14% are Grade II, 2% are Grade III, 48% under not obese and 10% come under weight**.**

Table   7 Grading of Obesity in First Child based on BMI of selected subjects

S.No.	Grade I	Grade II	Grade III	Not Obese <25	Under Weight <18
No.	45	6	15	18	0
%	53	7.14	17.85	21.42	0

Table.7: Shows, first child in all house hold 53% are comes under Grade I, 7.14% are Grade II, 17.85% are Grade III, 21.42% under not obese and no one comes under underweight.

Table 8: Grading of Obesity in Second Child based on BMI of selected subjects

S.No.	Grade I	Grade II	Grade III	Not Obese <25	Under Weight <18
No.	1	4	1	29	0
%	2.8	11.42	2.8	82	0

Table 8   Shows, Second Child in all households, 2.8% are comes under Grade I, 11.42% are Grade II, 2.8%% are Grade III, 82 % under not obese and no one comes under weight.

Table 9   Grading of Obesity in Third Child based on BMI of selected subjects

S.No.	Grade I	Grade II	Grade III	Not Obese <25	Under Weight <18
No.	0	0	0	8	2
%	20	0	0	80	0

Table 9   shows, third child in all households, 20% are comes under Grade I, 0% are Grade II, 0% are Grade III, 80 % under not obese and 0% are comes under weight.

Table 10: Grading of Obesity based on BMI of selected subjects' percent wise.

	Men	Women	First child	Second Child	Third Child

Grade I	20	24	53	2.8	20
Grade II	6	14	7.14	11.4	0
Grade III	4	2	17.8	2.8	0
Not Obese<25	64	48	21.4	82	80
Under Weight<18	0	10	0	0	0

3.RESULTS:

Table 3 shows that the rich people are 14% percentage, 58% middle class and 20% low income.

Table 4 depicts Health condition showing 91.71% are healthy and 8.28% suffering with chronic disease

Table. 5 focuses on the consolidated data collected from all the households. males in all study sites shows that 28% comes under Grade I, 6% are Grade II, 4% are Grade III, under not obese 64% and 0% are under weight.

Table 6 portray women in all the study areas which are recorded as, 24% under Grade I, 14% are Grade.II, .2% are Grade III, 48% under not obese and 10% comes under weight.

Table 7 represent first child in all house hold where 53% comes under Grade I, 7.14 are Grade II, 11.1% are Grade III, 20% under not obese and 0 as underweight.

Table 8 illustrates Second child in all households, showing 3.9% are under Grade I, 9.8% are Grade.II, 47% are Grade III, 0% under not obese and comes 39.2 as under weight

Table 9 outline third child in all households, in which 0% comes under Grade I, 0% Grade.II, 0%, Grade III, 80 % are under not obese and 20% are under weight.

Table 10 pictures grading of obesity based on BMI of selected subject percent wise which are tabulated in 5 columns along with pie graphs.

4. DISCUSSIONS:

1. The rich people 14 percentage shows that they might be land owners, farm entrepreneurs' business owners, high paid income people, politicians, etc.
2. 58% middle class is due to small proprieties, standard employment, small land owners.
3. 20% low income is due to Migrant workers, illiteracy, low economic condition less employment and abeyant life style.
4. Health condition shows 91.71% are healthy and 8.28% only are suffering with chronic disease due to less pollution, good nutrition, average number of health centers, average employment and education. Or the chronic diseases may be mostly due to hereditary genes.
5. First child in Grade I is more than men, women and other children's, showing their good health condition and more intake of nutritious food along with sentimental bend of mothers to feed and take care of their first child more than other children even sometimes spouse.
6. Grade II percentages is more in women than men and children which shows intake of more food by them when compared to men and children. It may be also due to hormonal imbalances or due to genetical disorders.
7. Due to Socio-economic privileged and more care, first child is showing obesity, when compared to men, women and other children in Grade III values. The other

reasons may be due to hormonal imbalances or certain other diseases.

8. When Grade I,II,III are compared in Men, Women and children they are in order first child>men > first child. Women and other children come in between.

9. Not obese values is more in third child. Except first child others show almost average value. This shows that most of them are in good health due to their quality nutrition and physical activity. But chronic disease percent show 8.28% as most of them are having hereditary diseases. Due to advancement in knowledge, and exposure through Net most of them are taking preventive measures to keep themselves healthy and sustain in life easily.

10. Underweight condition is seen in women only. Less weight may be due to more physical activity, bearing most of the burden, to lead the family. It may be due to more area coverage by remote villages or due to socio-economic suppression, illiteracy, diseases, malnutrition exhaustive works which conceivably be other reasons.

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