

CHANGE IN DIETARY HABITS AND ASSESMENT OF NUTRITION AMONG KONDA REDDY COMMUNITY IN ANDHRA PRADESH

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Abstract

Change in dietary habits has been a question while studying any culture. This is because the change could be due to various reasons including assimilation of cultures, change in the economy, deforestation leading to limited and new alternate resources. Previous Anthropological studies on food have established themselves into a subdiscipline, but what's more significant to focus on is how the change in food consumption is occurring. In the new era of globalization, it has relevance as indigenous forms of dietary practice are becoming invisible. Thus, this study focuses on the reason for the change in Dietary habits among the Konda Reddy community, a community in Andhra Pradesh how it is reflected in their culture. The dietary habits are a reason for how the nutrition effects on people. Most of the communities have experienced change in their dietary habits which in turn has affected their nutrition. It affects the overall nutrition of the community. Here in this study the nutritional pattern of Konda Reddy community in Andhra Pradesh is accessed. Nutrition is understood among the 43 children of the community through anthropometric measurements.

Keywords: Dietary Habits; Nutrition; Assimilation; Globalization; Konda Reddy; Andhra Pradesh

Introduction

Food is a basic human need, and it is a significant part of every culture. When there occurs social change, it is reflected even in the food pattern. Cuisines have created social integration as well as disparity (Douglas, 2003; Sidney W. Mintz, 2002). Studies regarding a change in food habits have put forward several reasons for the irregularity of the food pattern (Elizabeth Edison, 2019). Studies explain that it is the changes in the economic strategies of survival that most profoundly affect dietary patterns (Lentz, 1991). A work described that a community in Jalpaiguri district has experienced a change in their food habits due to the dominance of Bengali and Nepali culture (science, 2017). The change in dietary habits could also be due to factors such as new developmental activity and deforestation (Dash, 2014;

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Kumari Seema, 2015) whereas land alienation and agricultural changes were also found to be reasons for the change in dietary habits (Elizabeth Edison, 2019). Some studies also focus on indigenous dietary habits and the revival of diets of nutritive value. (Swati, 2021). The importance of gender in culinary change or addition is also understood previously (Lalita Prasad Vidyarthi, 1979).

Studies on tribal communities have used anthropometric measurements to understand the nutritional deprivation of the community (Subal Das, 2012; Dipak K Adak, 2006; N. Arlappa, 2005; Raja Chakraborty, 2008). Scopus readings reveal that malnutrition among tribal children is still a health issue in India. Despite many interventional programs from both Governments, it remains a serious problem that in long term affects the growth of the country (Uposoma Dey, 2019). A study revealed that malnutrition is widely prevalent among the Baiga tribe which is mainly due to inadequate dietary intake (T. Chakma, 2009).

This study categorically covers most of the aspects of a community where change is experienced in food pattern and the reason for it is explained and the nutritional status is assessed through anthropometry. An ethnographic study was conducted in the village Busigudem in 2017 December, this is situated in the Tehsil of Rampachodavaram and in the district of East Godavari which is in the state of Andhra Pradesh. The tribal communities residing there are Konda Reddys, Konda Kamiri, Konda Kaapu, Konda Dorai, and Valmiki. Konda means mountain as the village is situated around four main hills including Peddha Konda. Mostly comprising Konda Reddys, who are at the top of the hierarchical strata in this village. Other tribes are lower than this group and they (Konda Reddys) have much more influence in social, political, and economic life.

Christoph von Furer-Haimendorf, the well-known German anthropologist, first brought them to international attention in 1941 (Furer-Haimendorf, 1982). They were recognized as the Primitive Tribal Group. Konda Reddy tribe is divided into exogamous sects for regulating matrimonial relations. They are primarily shifting cultivators (Podu) and largely depend on flora and fauna of forest for their livelihood. They eat a variety of tubers, roots, leaves, wild fruits and collect and sell non-timber forest produce like Tamarind, Adda Leaves, Myrobolan, and Broom Sticks to supplement their meager income. They largely cultivate Jowar, which is their staple food. They also grow Ragi, Red Gram, Bajra, Beans, Paddy, and Pulses.

Change in dietary habits

The eating regimen of the general population in the village has changed or refashioned from Tubers and roots like *Dumpalu* to millets like *Jonna*, *Bontha*, *Sama* and as of late to grain like rice. This does not mean they used to consume just

this nourishment; however, the utilization levels have changed. Prior individuals used to devour tubers, roots, and palm shoots in a vast sum, and it was a piece of their general eating routine yet now they burrow it less, even though they developed and expended Jonna and different grains, rice was neither a conventional yield nor a staple eating routine.

The role of *Podu* cultivation (shifting cultivation) has been reduced due to the introduction of the Public Distribution System. But there was also the 100-days work (MNREGA) during Rajasekhara Reddy's government (2004-09) which cannot be neglected as this made the people into wage-earning employers rather than traditional cultivators. This in turn opened for economic transactions and the role of the market has been widened. So many of the crops including *Jonna*, *Sama*, *Bontha*, *Kora* whose production has decreased has taken a smaller place in their dietary habits. Some of them buy millets from markets as these give us an idea that they still consume them. Also, earlier dogs were kept to guard for the *Podu* crops to keep them safe from monkeys. But recently this also failed as dogs were not able to withstand the immense number of monkeys who destroyed the crops. So, people instead produce cereals like Rice which can be grown in plain areas which do not need *Podu* lands, and less labour is required compared to other crops. Also, with the supplying of *Jeedi Mamidi* (cashew nut) by the government (1984-87) there was much more demand for this as it earned them more money compared to any other crop. Another problem with the *Podu* cultivation is the dependence on rain which is not needed for growing cashews. And with the arrival of cashew cultivation as part of a government scheme that is merely commercialization, their subsistence economy has been affected depending on the market for products other than rice.

Rice has become a staple diet especially after the introduction of ration shops. In the case of the consumption pattern of Rice, *Veyyokkati* (MTU-1001) is mostly preferred over *Veyypadhi* (MTU-1010). In the morning itself most of the people in the households prefer *Annam* and *chaaru*. Although *Venkaaya curry*, *Chikkudukaya*, etc are made with *annam* (rice). Earlier there used to be only 2 meals but the habit for some has been changed to three times but most of them still follow the earlier but they provide food to children three times a day as they want to see their child healthy. They have food in the early morning and at night demand more food. Most people carry *Ambali* with them when they go to work. Also, it can be observed that they do not prefer leafy vegetables like *Chenchel koora* as they instead like to have *Pappu* with rice. The reason behind this is that it is appetizing and as most of them are agricultural farmers they do not have much time so making *Pappu* or *chaaru* is easier than cooking leafy vegetables.

Change in crop pattern

Most of the agricultural dependents grow black gram and red gram in their *Podu* land. This earned them a lot of profit after *Jeedimamidi* cultivation (cashew nut). But recently this pattern has changed and some of the farmers introduced Bengal gram into their field for government-provided seeds last year. There was a gradual shift towards Bengal gram as many of the farmers were planning to cultivate it in the next Kharif season. But the most important factor is that until 2000 there was only the consumption of MTU1001 variety but during Rabi season of the year the farmers in coastal Andhra Pradesh as a whole, who were hitherto cultivating MTU 1001 rice variety, have changed their crop to grow the MTU 1010 variety. The reasons include that it was priced less than that of MTU 1010. Consequently, the farmers wanted to grow MTU 1010, which was classified as a fine variety and would fetch Rs 30 to Rs 40 more per quintal compared to MTU 1001 variety. But only some of them replaced their MTU-1001 with MTU-1010 as some of them were not aware and was afraid of introducing new crops.

Adopting new food patterns

Dosa and *idli* are consumed by a few and made at home by a very few out of them. These are not part of their traditional food habits, so they don't know how it is made and few usually buy it from the market or entrepreneurs. The ones who prepare it are from a different class or prefer a much better standard lifestyle. This was understood by the ways of hygienic practices they maintained indifferent to others, the houses built (semi-pucca houses or pucca houses). These also include those people who buy cerelac for babies. They also do not prefer to eat the leftover food at night as according to them it causes diseases. Although there were few exceptional cases where they experimented with these dishes out of excitement. There are some influences of TV and media over their food habits. They try to prepare products that are shown on TV out of fascination and excitement not only by women but even men. But some foods like Maggi and pasta are consumed in very few of the households influenced by the TV advertisements, and in several households, the young people take the responsibility to prepare this as they are also eager to introduce a new dish to the elders.

Marriage

Earlier people in whose house marriage is fixed and there is no crop cultivated in his field (barren land) he has a motive to cultivate the land before the commencement of the marriage. Earlier curry made out of pumpkin (*Gaumudi kaaya*) and *kandulu*(beans) was usually served which in turn was cultivated from their land. So, this made the event much more important as the whole cultivated

crop was utilized for the marriage. But recently the consumption pattern has changed into chicken and mutton dishes. And with this Palava (ghee rice) is served. This was started around the year 2000 when a few families introduced this.

Hunting

Also hunting used to be practiced regularly and collectively and used to distribute among people and sometimes they consumed it together which increased communal bonding among people. But due to restrictions people nowadays go alone or most probably with two or three people together and just distribute it and consume it later by keeping it in the refrigerator. But unlike earlier day's wild rabbits, wild deer, porcupines are not hunted and consumed, and they do not still follow their ancestral mode of preparation.

Government interventions

The government and the ITDA office in Rampachodavaram benefited the farmers in cultivating high yield varieties and making a profit. They were trained in the areas of agriculture, horticulture, poultry and animal husbandry, and value addition programs. Interventions through training programs, awareness camps, front-line demonstrations and method demonstrations were conducted to improve the knowledge skills and abilities of tribal farmers. The official's interventions in agriculture, horticulture, poultry, animal husbandry, and value addition programs have enhanced the knowledge, abilities, skills, and income level of the tribal families by improving their living standards. This made them try new vegetables and crops which include capsicum and Bird's eye chili.

Fish farming

The construction of Bhoopathipalam reservoir project apart from providing irrigation for the farmers also helps in raising fish in it. Also, with the help of Krishi Vigyan Kendra, new varieties of fish like *Calta*, *Rohu*, *Mrigala*, and grass carp were introduced. With the practice of pisciculture in freshwater ponds, some from other villages began to sell fish in Busigudem. Thus, now every household claim that they consume fish at least once in 2 weeks.

Health and nutrition among the community

There is certainly an approach towards consuming healthy and nutritious food. They believe that consuming spinach can give energy to the body. The calcium levels of children and elders are less because of less consumption of vitamin A. Certain miscarriages in pregnancy happened because of this. This could

mean that although there are leafy vegetables and mangoes, they are consumed very little by the people. Also, vitamin c is less among pregnant women as pregnant women need at least 85mg per day. This could lead to less consumption of citrus fruits, cereals, and leafy vegetables. The food prescribed by doctors may usually include malt rice, barely, *Ganji*, etc. but the ethnomedicine practitioner and the community as a whole prefers *Raagi Jaava*, *vari Jaava*, *Jonna java*, *Ganji* during illness.

Milk is usually consumed by children of 3-5 years. They are also given *Ganji*, *Ambali*- a mixture of Rice, *Raagi*, *Jonna* with water is considered a healthy diet that is consumed by people during or after work in the field. The most observed fact is that they are not prone to heart disease and diabetes. The reason may be the regular working hours by both men and women, but we should note that *Tegalu Dumpa* is part of their dietary habit which is an important fiber that can provide a healthy diet and prevent diabetes and heart diseases.

Anthropometric measurements and evaluation of nutrition among the children

As part of the research to study on growth and development of children sample of 43 students were taken and their standing height and weight were measured using Anthropometric instruments along with considering their age and sex. This includes children from primary school, Anthropometric instruments including Anthropometer, and Weighing Machine are used. Certain procedures are followed such as:

1) Height vertex Stature - It is the straight measurement from vertex to floor.

The instrument used is – Anthropometer.

Procedure: The subject (children) is made to stand straight at the right angle with the floor. The eye of the subject is according to the ear-eye plane. The anthropometer is placed on the right side of the subject. The crossbar is moved to locate the vertex and it is fixed in the mid-sagittal plane of the subject and noted down the height vertex.

2) Body-Weight Stature -It is the total weight of the subject

The instrument used –Weighing Machine

Procedure: The subject is made to stand erect to the weighing machine. The subject is told to look in the eye-ear plane. The

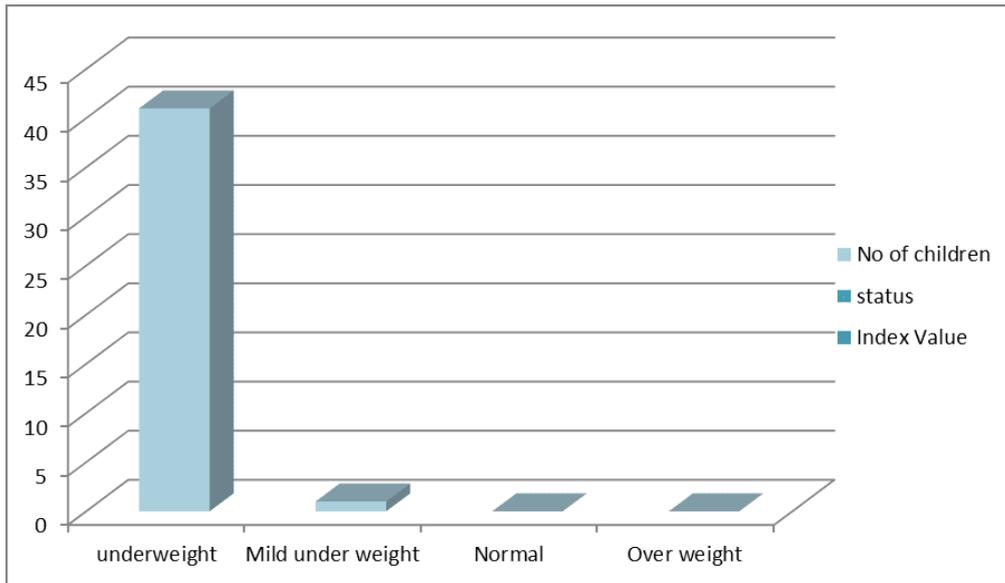
reading is carefully noted down. Then to understand their nutritional status certain indices was calculated.

Table 1: Name of Indices, Range, Class and Formulas

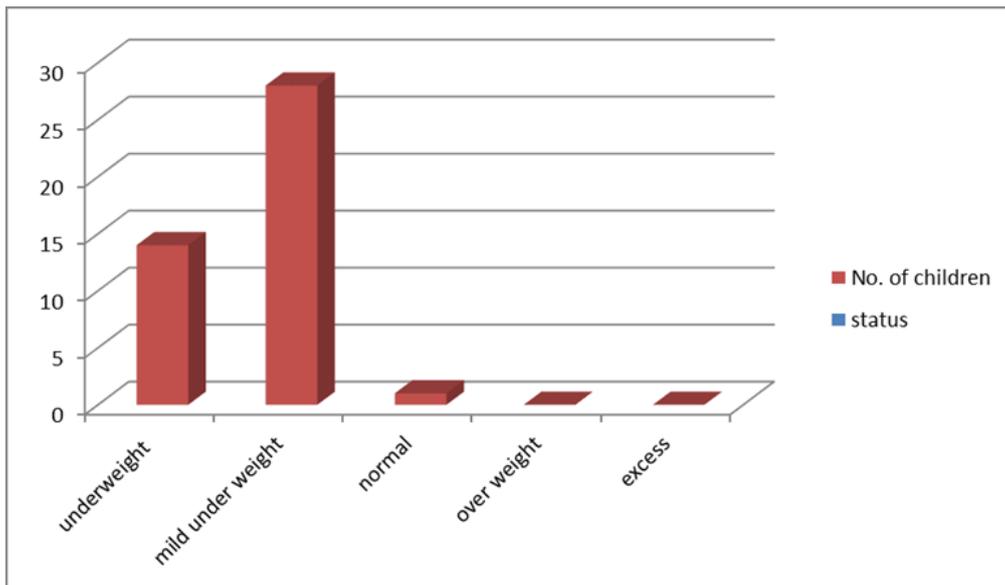
Name of indices	Range	Class	Formula
Height – weight Index	<25 26-34 35-50 51-55 56+	Underweight Mild under weight Normal Over weight Over	Weight(kg) X 100 / Height vertex(cm)
Quetelet Index	Below 300 301-400 351-400 500+	Weak Thin Normal Obese	Weight (gm) X100 / Height vertex
Kaup Index	<1.4 1.4-2 2.0-2.5 2.5-3 3+	Under weight Mild under weight Normal Overweight Obese	Weight (gm) X 100 / Height vertex (cm)
Body Mass Index	<18 18.5-25 25.5-30 30+	Underweight Normal Obesity grade 1 Obesity grade 2	Weight (kg) / Height vertex (m) ²

Height –Weight Indices

Index value	Status	No. of children
Below 25	Underweight	41
26-34	Mild Underweight	1
35-50	Normal	1
51-55	Overweight	0



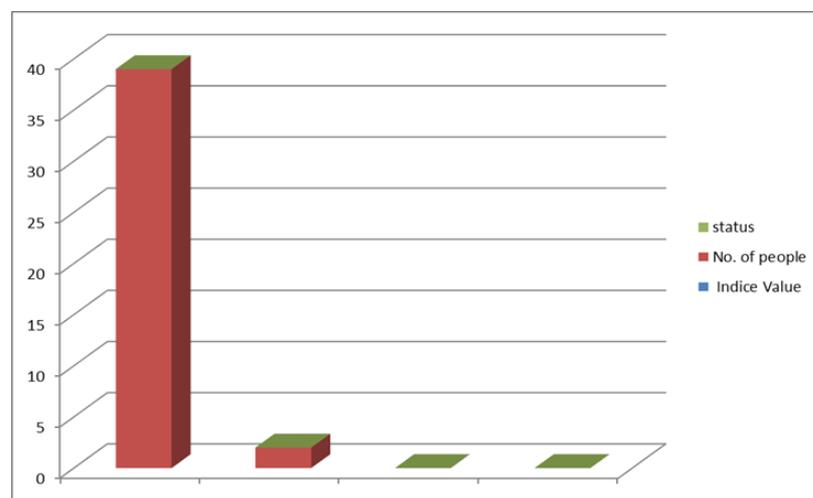
Kaup Indices



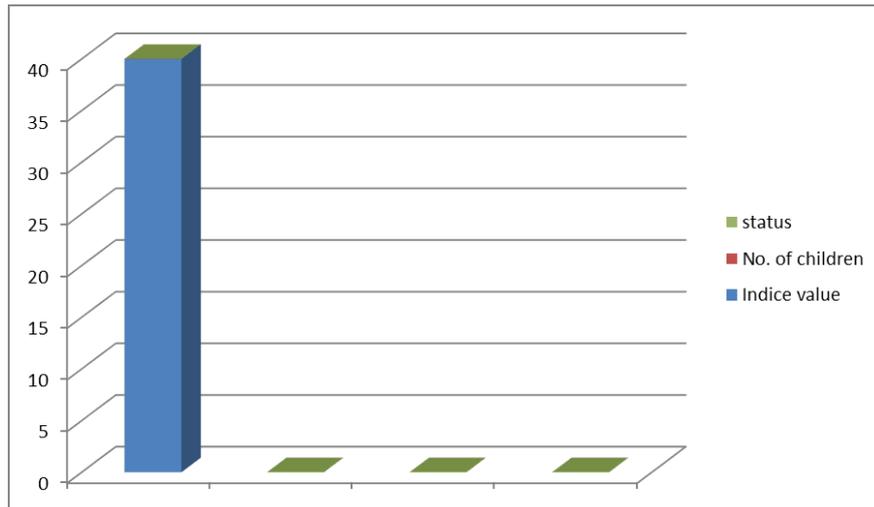
Index value	Status	No. of children
Below 25	Underweight	14
26-34	Mild Underweight	28
35-50	Normal	1
51-55	Overweight	0

Body-Mass Indices

Index value	Status	No. of children
Up to 1.4	Underweight	14
1.4 - 2	Mild Underweight	28
2 - 2.5	Normal	1
2.5 - 3	Over weight	0

**Quetelet Indices**

Index value	Status	No. of children
Below 300	Weak	41
301 - 350	Thin	1
351 - 400	Normal	1
400+	Obese	0



By careful observation of all the above tables and indices, it can be concluded that 96.79% out of the 43 children are underweight (which is 42) and Anemic whereas one person is healthy and normal. This gives us an overall Nutritional health status of the children and it clearly shows that children are not consuming a balanced diet and nutritious food.

Conclusion

Earlier the residents used to consume tubers and roots in a maximal level as well millets and pulses. With the coming of *Podu* lands the dependence of forest reduced and they used to dig tubers and roots lesser compared to earlier periods. The Public Distribution System when introduced made people accessible to rice, sugar and oil which they got in subsidized rate. Because of this they reduced the cultivation of millets like Jonna instead they started to consume the two-rice variety (MTU-1001 and MTU-1010) available in the ration shops. This changed the dietary habits of the people in the community.

Cashew crops which were introduced in 1987, was not fully adopted instead it was started to grow by everyone in the late 2000s. This gave the people some opportunity to earn profit by gaining more output with the investment of less input. The 100-days work (MNREGA) during Rajasekhara Reddy's government (2004-09) should be considered as an important aspect which changed their food pattern as this made the people into wage earning employers rather than traditional cultivators. This in turn opened for economic transactions and the role of market has been widened. So many of the crops including Jonna, Sama, Bontha, Kora whose production has been decreased has taken a smaller place in their dietary habit. Some of them buy millets from markets as these give us an idea that they still consume it. Also, earlier dogs were kept to guard for the *Podu* crops to keep it safe

from monkeys. But recently this also failed as dogs were not able to withstand immense number of monkeys who destroyed the crops. So, people instead produce cereals like Rice which can be grown in plain areas which does not need Podu lands and less labour is required compared to other crops.

People are not much influenced by media but some have changed their dietary habits with change in lifestyle. Many people who earned some money adapted to a much better living standard which was reflected in their food habits also. As it is observed that most of them do not consume food products like Idly, Dosa and Chapati, contradictory to this a very few people consume this. The people residing there do not have knowledge to make this food but some of them buy it. The people who make these also do not prefer leftover food for the morning as they say that it causes diseases. Also due to certain external interventions the change in food pattern can be observed.

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