

## **PROXIMATE QUALITIES OF COMMONLY CONSUMED TRADITIONAL DISHES IN SOUTH WEST NIGERIA**

**A paper presented at the 16<sup>th</sup> international inter- Tertiary Multidisciplinary Conference (ISTEAM) in collaboration with the Academic Staff of Polytechnics (ASUP) The Federal Polytechnic, Ilaro chapter ,Ogun State, Nigeria held between 9<sup>th</sup> – 11<sup>th</sup> June ,2019**

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### **ABSTRACT**

The study evaluated the proximate qualities of commonly consumed traditional dishes in Southwest Nigeria .The geographical zone in Nigeria consists of State with close geographical location, similar history, ethnic group culture and political ideologies. The specific objectives are to know the nutritional content of the dishes using proximate analysis and to know the adequacy of the traditional dishes. *The dishes were prepared* following their traditional methods of preparation. The proximate nutrients were determined according to AOAC (2005). The result obtained showed that Iyan and Egusi soup has the lowest moisture content of 54.62% , least protein content of 5.06% and highest ash content of 5.32% while ( Eko/Ota) has the highest moisture content of 81.22%. Ekuru and Eko has the highest protein content of 12.54% followed by Ota and Eko with protein content of 10.91% and highest carbohydrate content of 26.89% followed by Ofada rice 26.36%.. Result also revealed that Ofada rice has the highest fibre content of 2.55% while Ekuru and Eko having the least fibre content of 0.57%. However, result also revealed that Amala, Gbegiri and Ewedu has the highest fat content of 10.21% which could be due to the fat used in preparing the gbegiri and fish stew.

In conclusion the proximate qualities of the traditional dishes consumed in South West Nigeria has shown in this study are good sources of carbohydrate, high sources of protein and fibre and a moderate source of fat.

*Key words: Proximate qualities Traditional dishes, south west, Nigeria.*

### **INTRODUCTION**

The council on Food and Nutrition of the American Medical defines nutrition as the study of interaction of nutrients and other substances in food in relation to health and disease, and the process by which the organism ingests, digests, absorbs, transport, utilizes, and excretes food substances. Gordon .M (2002). The eating tradition of every country and culture are the result of millennia of history. Geographical location and climatic conditions play a predominant role in the growing, harvesting and availability of food product influencing the food habits of the ethnic populations. (Finch C.F & Cracknell H.L,1997). Food habits are symbolized to particular culture. The methods of foods preparation are diverse and related to the types of food available. Food is represented as part of the cultural traits of an ethnic community. The cultural background determines what shall be eaten as well as when and how it shall be eaten.

Every tribe of this country has its own unique cooking method develop its own choice of ingredients and blend flavors, representing a fascinating repertoire of ideas, technique and recipes. Eating habits as well as preparatory recipes differ from place to place. Very often, the taste, colour, texture and appearance of the same delicacy differ from place to place due to traditional method of preparation (Joshi S.R, 2016)

The dishes of the people of these regions are not laced with oil or spices, yet they are delicious. The locally grown aromatic herbs make them exotic. They are light, easy to prepare, and simplicity is all mark of the traditional cuisine. The basic component of the traditional meal, accomplished by a gravy braised meat or fish and chuney, washed down with soup of boiled vegetables and fresh salad food is also found varying from place to place and from tribe to tribe within the region.( Mandari Mary& Joshi S.R, 2013)

Traditional dishes can also be referred to as local foods that are consumed over the long term duration of civilization that have been passing through generation. Local foods are traditional in nature and may have a historical precedent in national dishes, regional cuisine or local cuisine. Trichopoulou A (2007)

The value of traditional foods as an element of cultural heritage and their protection is important. Traditional food systems also refer to the human managed biophysical systems that are involved in the production, distribution and consumption of food in a particular environment, improvement in the food systems have been found to greatly reduce hunger, improve income and reduce malnutrition and the related disease conditions in so many countries (Enefiok , 2016).

According to Onimawo, (2010) there are two groups of traditional foods. First, those consumed in the areas where they are grown as traditional dietary staples for example cassava, yam, cocoyam, sweet potato, (Ipomoea Batatas), plantains (Musa Paradiaca) and maize.

The second group is made up of those consumed as a component of accompanying relishes and sauces. These include oil seeds, fruits and vegetables.

According to Obiakor (2014), it is known that about 30% of the population in developing countries is currently suffering from one or more multiple form of nutritional problems. These countries have insufficient intake of food nutrients which are related to food insecurity, disease lack of care and excessive or imbalance food intake in dietary constituents. Traditional dishes in most societies are good and minor modifications are needed for them to meet the nutrient requirements of all members of the family, the starchy food are by far, the most frequently consumed food in Nigeria.

There is need to increase the consumption of traditional dishes which will helps to bridge the gap between protein , energy and other nutrient . Inadequate nutrient intake by an individual predisposes one

to poor nutrition and chronic disease, deficiency disease, caused by lack of such nutrient have been reported among low class in some part of Nigeria.

Proximate composition is the term usually used in the field of feed/food and means the six components of moisture, crude protein, ether extract, crude fiber, crude ash and nitrogen free extracts, which are expressed as the content percentage (%).

### **Statement of the problem**

Some prefer convenience foods such as noodles, corn-flakes and fast food rather than eating traditional foods that are rich in nutrients due to lack of knowledge on nutritional adequacy of the dishes. Lastly, inadequate finance makes food item not readily available on the table.

### **General objective of the study**

The general objective of this study is to evaluate the proximate qualities of the commonly consumed traditional dishes in Southwest Nigeria.

### **Specific objectives of the study**

1. To know the nutritional qualities of the dishes using proximate analysis
2. To know the adequacy of the local food

### **Methodology**

The five sample dishes are purposely selected from each region in Southwest Nigeria, each ingredient for preparing this local dishes were purchased from Sayedero market in Ilaro Yewa south L.G.A of Ogun state and were prepared in Nutrition and Dietetics kitchen

### **Area of Study**

The six geopolitical zones were created during the military era. The six geopolitical zone consists of State with close geographical location, similar history, ethnic group culture and political ideologies. The Southwest is one of the geopolitical zones, it consist of six states namely Ekiti, Ondo, Oyo, Osun, Ogun and Lagos state. Each division has a traditional dish that thy consumed.

### **Instrument for Data Collection**

Each food sample (5 in number) where collected in plastic container. The collected samples were oven dried until used for analysis.

Selected traditional dishes commonly consumed in the south west Nigeria are

Ofada rice ,Cowpea ( Ekuru) ,Maize (Eko), Yam flour (Elubo) and Pounded yam.

Preparation of Ofada Rice and its Stew

**Ingredients:** 500g Ofada rice ,30g locust beans, 50g semi ripe chill pepper,300ml of palm oil, 5 bulb of onion, 20g of offals, 30g dried fish seasoning (magi) and salt to taste .

### **Procedure**

1. Boil the native Ofada rice till it cooked (be sure the rice is clean before boiling)
2. Add salt to the boiled rice
3. Grind all the pepper onions and few tomatoes
4. Pour palm oil on pot, add sliced onions, a pinch of salt allow to fry
5. Add the grinded pepper, dried fish, ponmo, enough locust bean, add a pinch of salt add magi
6. Check the taste if okay leave all to cook for 25 min
7. Serve rice wrap in leaf and served with assorted beef (offal) stew

### **Preparation of Eko and Ota**

#### **Procedure**

1. Put water in a pot and allow it to boil.
2. Mix the pap slurry with cold water and avoid lumps.
3. After mixing, start pouring the pap inside the hot water and start stirring.
4. Stir to avoid lumps, after it has spent some time on fire, put it off the fire.
5. Wrap in leaves and allow it to solidify

### **Preparation of Ota**

**Ingredients:** Fresh pepper (Rodo), Onion, seasoning, salt, smoked fish, locust bean, groundnut oil

#### **Procedure**

1. Wash the pepper and onion to remove dirty

2. Dice the pepper and onion
3. Remove the bone from the fish and flake
4. Wash the locust bean to remove the dirt
5. Mix all together and add the seasoning and salt to taste
6. Serve using cold pap (Eko) as an accompaniment

### **AMALA, FISH STEW AND EWEDU**

#### **TRADITIONAL PRODUCTION OF AMALA (made from Elubo)**

Elubo is a dehydrated milled product obtained from yam of discorea species. It is a smooth brown powder and being a wholly yam based product, it is a rich source of carbohydrate. It is prepared by pouring in hot (boiling) water with continuous stirring until a stiff gel called Amala is obtained. It is commonly serve for lunch or dinner ith stew and any of mucilaginous vegetable (especially Ewedu). Elubo is commonly produced in Oyo, Osun and part of Kwara state, its usually served with gbegiri and ewedu as accompaniment.

### **EKURU WITH EKO IN OKRA SOUP WITH STEW**

The traditional name of beans meal is Ekuru, a wholly cowpea based food item, rich in essential amino acids. Locally, it is consumed as a lunch or dinner meal with” eko” (fermented maize cruel) as accompaniment. It is one of the popular form in which beans is processed among the Yorubas of Nigeria.

### **IYAN (POUNDED YAM) AND EGUSI SOUP**

One of the most important culinary traditional preparation of yam in Nigeria and indeed West Africa is pounded yam (Iyan). It is commonly served for lunch and dinner with vegetable in egusi soup (melon) as accompaniment. In spite the fact that the preparation is labour intensive, it still has a generally wide appeal. Aiyeye F., & Eleyinmi A., (2007)

### **Proximate Analysis**

The proximate composition of the traditional dishes were determined using the analytical procedures as described by AOAC Association of Official Analytical Chemist (2005). The nutrient analyzed was moisture content, ash, crude fibre, crude fat, crude protein and carbohydrate.

## RESULT

: Proximate Qualities of some commonly consumed Traditional Dishes in Southwest States

parameters	Samples				
	A	B	C	D	E
MOISTURE	59.41±0.03 <sup>d</sup>	81.22±0.03 <sup>a</sup>	59.11±0.11 <sup>d</sup>	56.41±0.11 <sup>b</sup>	54.62±0.25 <sup>e</sup>
ASH	0.64±0.01 <sup>c</sup>	0.57±0.01 <sup>d</sup>	2.34±0.02 <sup>c</sup>	1.64±0.25 <sup>c</sup>	5.32±0.02 <sup>a</sup>
FIBRE	2.55±0.03 <sup>c</sup>	2.21±0.03 <sup>c</sup>	1.13±0.02 <sup>d</sup>	0.57±0.02 <sup>e</sup>	2.04±0.02 <sup>a</sup>
PROTEIN	5.41±0.11 <sup>e</sup>	10.91±0.01 <sup>a</sup>	5.42±0.25 <sup>d</sup>	12.54±0.02 <sup>a</sup>	5.06±0.11 <sup>e</sup>
FAT	5.63±0.01 <sup>c</sup>	2.42±0.07 <sup>d</sup>	10.21±0.01 <sup>a</sup>	4.93±0.25 <sup>e</sup>	9.53±0.01 <sup>b</sup>
CARBOHYDRTE (By difference )	26.36±0.01 <sup>a</sup>	2.42±0.07 <sup>d</sup>	21.79±0.04 <sup>e</sup>	26.89±0.09 <sup>c</sup>	23.42±0.02 <sup>d</sup>

Source: Field survey May (2019)

Values are means + standard deviations of triplicate determinations. Sample A:Ofada rice, sample B: Ota/Eko, Sample C:Amala/Gbegiri,Ewedu and Fish Stew, Sample D:Ekuru and Eko in Okra soup and sample E:Iyan and Egusi Soup

## DISCUSSION

The result obtained on chemical composition of selected dishes such as Ofada rice and stew, Amala ,Gbegiri and Ewedu in fish Stew Eko served with Ota are consistent with the earlier report of (Olawunmi et al., 2012) which stated that all the dishes have high moisture content which indicates bad keeping quality because food spoiling microflora thrives where there is adequate moisture.

The moisture content of the research work ranged from 54.62 to 81.22%. The lowest value of 54.62% was recorded for sample E (Iyan and Egusi soup) while the highest value of 81.22% was recorded in sample E (Eko/Ota).

The crude fibre content ranged from 0.57-2.55 % with the highest value recorded in sample A (Ofada and stew) while the lowest value was recorded in sample D (Ekuru& Eko with Okra soup). Crude fibre helps in the maintenance of normal peristaltic movement of the intestinal tract hence diets containing low fibre that could cause constipation and eventually lead to colon disease, piles, cancer and appendicitis (Oguntona, 1995).

The protein content in the samples ranged from 5.06 to 12.54 where the highest value was observed in sample D (Ekuru& Eko with Okra soup) and the lowest was observed in sample E (Iyan and Egusi soup). The value obtained on protein content is consistent with the earlier report of (Al-Numair and Ahmed, 2008). Protein helps in building and maintaining all tissues in the body forms an important part of

enzymes, fluids and hormones of the body and also helps forms antibodies to fight infection and supplies energy.

The sampled dishes also provided one-third of the recommended dietary allowance (RDA) with respect to protein (7.5-12.5%) as recommended by Food and Agriculture Organization (FAO/WHO/UNU, 1985). The fat content highest value was recorded in sample C (Amala,gbegiri and Ewedu in fish soup) followed by sample E (Iyan and Egusi soup) and the lowest value recorded in sample B (Eko/Ota). This is in agreement with the report of (National Research Council, 2006) and (Nutritional and wellness Funmi Badejo Blog) which says Egusi comprise mainly of mono-unsaturated omega 9 fatty acids. The carbohydrate content ranged from 2.67 to 26.89% with the highest value recorded in sample D (Ekuru& Eko with Okra soup) and the lowest recorded in Sample B (Ota/ Eko) Carbohydrate supplies quick sources of metabolic energy. (Olawunmi *et al.*, 2012)

All the sample in this present research work have significant differences of ( $p < 0.05$ ) in the nutritional composition in terms of moisture, ash, fibre, protein, fat and carbohydrate content and this could be attributed to the different food stuffs used.

## **CONCLUSION**

This work has provided baseline information on traditional dishes consumed in Southwest State. The low income groups /would benefit from nutrient potentials of traditional foods, particularly at times of seasonal buoyancy of staple crops.

## **RECOMMENDATIONS**

- i.)Regular consumption of traditional foods should be established and implemented to eradicate malnutrition.
- ii.)Adequate nutrition education on traditional foods should be established, especially on its production, processing and preservation as it contribute to household food security. There should be more nutritional information on the health benefits of traditional foo
- iii) The populace should be encouraged to grow traditional foods that are environmentally stable in other to reduce the distance food travels before it gets to a consumer.

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