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RESEARCH ARTICLE

RATE OF AWARENESS OF THE HEALTH BENEFIT AND CONSUMPTION OF MORINGA IN NASARAWA, NIGERIA

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Abstract

Moringa is frequently considered as significant starvation food as a result of its high protection from dry season and bone-dry conditions attributable to their tuberous roots. It has acquired its name as 'the supernatural occurrence tree' because of its stunning recuperating capacities for different sicknesses and even some constant illnesses. The study evaluated the Rate of awareness of the health benefit and consumption of moringa in Nasarawa, Nigeria. Cross-sectional data from the primary source was used for this study. Two hundred and ten (210) individuals responded to the survey hence that constitutes the sample size used for the study. Descriptive statistics were used to analyze the data set. From the result the mean age was 34.5 years, most (71.42%) of the respondents were male and married. Most (52.38) of the respondents were civil servants. From the results, the rate of awareness about moringa was calculated to be 0.9047 (90.47). Only 57.14% percent consume moringa leaf or any of the part despite the health benefit. The study concluded that the rate of awareness about moringa was high however the consumption rate was low because of difficulty of access. It was therefore recommended that an advocacy and awareness campaign be carried out to encourage urban dwellers to plant moringa as part of their ornamental crops in their compound, this will ease the difficult encounter in accessing the tree.

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Introduction:-

Food and Agriculture Organization's (FAO), around 70–80 % of the total populace, particularly in third-world nations, depends on herbal medicine to forestall and fix illnesses (Ekor 2014), and around 25 % of the incorporated medications are made from medicinal plants (Pan et al. 2013). Moringa oleifera Lam. is the most generally developed type of the tropical blossoming plant family Moringaceae containing thirteen different species (Shahzad et al., 2013). Moringa oleifera is indigenous to South Asia, where it fills in the Himalayan lower regions from North-Eastern Pakistan to North-Western Bengal, India (Sharma et al., 2011). The species was presented and got naturalized in different pieces of the world including East and West Africa (Paliwalet al., 2011). It has an extraordinary potential to fill in as a high-esteem food crop, medicinal items, just as grub for creatures, especially in agricultural nations (Shahzad et al., 2013).

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The Moringa is frequently considered as significant starvation food as a result of its high protection from dry season and bone-dry conditions attributable to their tuberous roots (Padayachee and Baijnath 2012). Practically every single portion of the Moringa tree is helpful for medicinal, utilitarian food arrangements, nutraceuticals, water purification, and biodiesel production; including roots, leaves, blossoms, green units, and seeds (Saini, 2015). The youthful cases, blossoms, and foliage of this tree are utilized for culinary purposes in various pieces of the world (Stevens et al., 2013). Customarily, other than being a day utilized vegetable among individuals of these areas, the Moringa is additionally known and utilized for its medical advantages. Among ordinary people, it has acquired its name as 'the supernatural occurrence tree' because of its stunning recuperating capacities for different sicknesses and even some constant illnesses.

Over the years and in many cultures around the world, the medicinal usage of the Moringa has been used to treat problems such as skin infections, anemia, anxiety, asthma, blackheads, blood impurities, bronchitis, catarrh, chest congestion, cholera, and many other illnesses (Khawaja et al., 2010; Hamza, 2010; Singh et al., 2012). Moringa oleifera also consist of anti-inflammatory, anti-spasmodic, anti-hypertensive, anti-tumor, anti-oxidant, anti-pyretic, anti-ulcer, anti-epileptic, diuretic, cholesterol-lowering, renal, anti-diabetic, (Paliwalet al., 2011; Sharma et al., 2012) and hepatoprotective activities (Lai et al., 2010; Huang et al., 2012). It has additionally since quite a while ago been marked for its incredible corrective incentive in which later, the Moringa has regularly been discovered to be utilized in different medical services items including body and hair lotions and conditioners. It was likewise found that Moringa oil was utilized in skin balms since the time of Egyptian occasions. The Moringa was professed to be 'the most supplement rich plant yet found' by Khawaja et al. (2010). Despite its relevance and nutritive value, a whole lot of individuals may not aware and have not tapped into the nutritional and economic benefit of Moringa. It is against this backdrop that this study seeks to examine the rate of awareness of individuals in Nasarawa state about moringa.

Objective of the Study:-

The main objective of the paper is to ascertain the rate of awareness of the health benefit and consumption of moringa in Nasarawa Metropolis, Nigeria. the specific objectives are to:

1. determine the socioeconomic characteristics of respondents,
2. evaluate the rate of awareness of the health benefit of moringa, and
3. determine the rate of consumption of moringain Nasarawa, Nigeria.

Methodology:-

Study Area:

This study was conducted in Nasarawa State, Nigeria. Nasarawa State is bounded in the North by Kaduna State, in the West by the Abuja Federal Capital Territory, in the South by Kogi and Benue States and in the East by Taraba and Plateau States. The state lies between Latitudes 7° 45' and 9° 25' North of the equator and between Longitudes 7° and 9° 37' East of the Greenwich meridian. The average annual temperature is 28.4 °C and about 839 mm of precipitation falls annually. The temperatures are highest on average in April, at around 32.9 °C, and the lowest average temperature of 25.1 °C in January. The state has a total land area of 27,137.8 Square Kilometer and a population of about 1,826,883 people (NPC, 2006) with a density of about 67 persons per square kilometer.' Nasarawa state is divided into 13 Local Government Areas. The soil texture is predominantly sandy-loam. The major crops grown in large quantities are cassava, yam, sesame, rice, maize, millet, groundnut, and cowpea. While tree crops include moringa, mango, cashew, citrus and guava are common.

Method of Data Collection:

Cross-sectional data from primary source was used for this study. Google forms were designed and the link was shared online with a specific target to a resident of the study area.

Sampling Technique:

This study employed purposive sampling to select Nasarawa State, Nigeria. Firstly, because the state is known for predominant moringa in the state. Secondly, because of the proximity of the area to the base of the researcher. The respondent for the study was selected randomly from the household in Nasarawa state to fill the questionnaire online because of the current COVID-19 pandemic, physical contact was avoided. A total sample size of two hundred and ten (210) individuals responded to the survey hence that constitute the sample used for the analysis.

Method of Data Analysis:

Descriptive Statistics:

This was used to examine the socio-economic characteristics, evaluate their rate of awareness, and examine their rate of consumption. of the respondents. These include their gender, marital status, household size, age, level of education, etc. A statistical package for social science (SPSS 20) was used.

Rate of Awareness

$$AR = \frac{NU}{TU} \dots \dots \dots (2.1)$$

Where; AR is awareness rate, NU is the number of users and TU is total uses. The formula for calculating awareness rate is Awareness rate = the number of users / total number of respondents in the survey.

$$CR = \frac{NU}{TU} \dots \dots \dots (2.2)$$

Where; CR is Consumption rate, NU is the number of consumers and TU is total sample size. The formula for calculating awareness rate is Consumption rate = the number of consumers/ total number of respondents in the survey.

Results and Discussion:

Socio-Economic Profile or Characteristics of Respondents:

Table 4.1 shows the result of the socio-economic characteristics of the respondents in the study area. From the result, about 80.95% of the respondents were between the ages of 31 and 40 years. The mean value was 34.5 years old. This implies that most of the respondents were energetic, resourceful, at their youthful age. This implies that the household head may be more industrious and capable of undertaking several livelihood strategies. This result is in line with the findings of Nwalem (2015). 52.38% of the respondents were married. About 47.61% of them were single. All the respondents in the study area had tertiary education. This implies that the majority of the respondents in the study area had completed a minimum of 6 years of schooling. Hence had formal education and are be able to read and write in the English language fluently and use the internet. Education is good for the adoption of innovations (improved technologies and research findings) by the respondents because it may be relatively easier to introduce new technology to the respondents in the study area. The findings agree with the findings of sallawuet al (2016). Most (71.42%) of the respondents were male in the study, this suggests that the male gender respondents more to survey than the female gender, it also suggests that the male gender utilize the internet more than the female in the study area. Most (52.38) of the respondents were civil servants, this suggests that civil servants were the major residents in Nasarawa Metropolis.

Table 4.1:- Socio-Economic Profiles or Characteristics of the Respondents in the Study Area.

Variables	Frequency	Percentage	Mean (Std. Dev)
Age (Years)			
31 – 40	170	80.95	34.5 (7.55)
41 – 50	40	19.05	
Marital Status			
Single	110	52.38	
Married	100	47.61	
Educational Status			
Tertiary	210	100	
Household Size (Units)			
Female	60	28.57	
Male	150	71.42	
Occupation			
Civil Servant	100	52.38	
Entrepreneur	70	33.33	
Self-Employed	40	19.05	
Total	210	100.0	

Source: Field Survey (2020) Computed Using STATA 14

Rate of Awareness of the Health Benefit and Consumption of Moringa:

Table 4.2 below shows the rate of awareness of the health benefit of moringa and the rate of consumption in Nasarawa metropolis. From the results on table 4.2, the rate of awareness was calculated to be 0.9047 (90.47) which suggest that the majority of the respondent were aware of the health benefit of moringa in the study area. This means that the respondent was aware that moringa can be used to cure it's used to treat skin infections, anaemia, anxiety, asthma, blackheads, blood impurities, bronchitis, catarrh, chest congestion, cholera, and many other illnesses. This suggests that a lot of advocacy has been done which has created lots of awareness among the resident in Nasarawa metropolis. This might be because of the high affinity to the consumption of traditional medicine in Northern Nigeria. These results are in line with the findings of Akinngbe (2017) who ascertained the awareness level of nutritional and medicinal benefits of moringa oleifera plant among farmers in southwest Nigeria.

Although the rate of awareness was significantly high only a few consume moringa as part of their diet. From the result of the study, only 57.14% percent consume moringa leaf or any of the part despite the health benefit. This suggests that some of the respondents still preferred to consume contemporary drugs that have passed the pharmaceutical screening. Majority of the respondent posited that moringa was difficult to access, hence a reason why they don't get to consume it. This might because of the absence of research and development on how to better package and preserved the leave and other products from the tree so it can be sold in the supermarket in the urban area. This also suggests that most of the residents did not take moringa as a viable economic tree they should plant in their homes aside from ornamentals. This is in line with the finding of Al, Gueye et al (2011) who reported that respondents in his research consume moringa for the health and nutritional and health benefit.

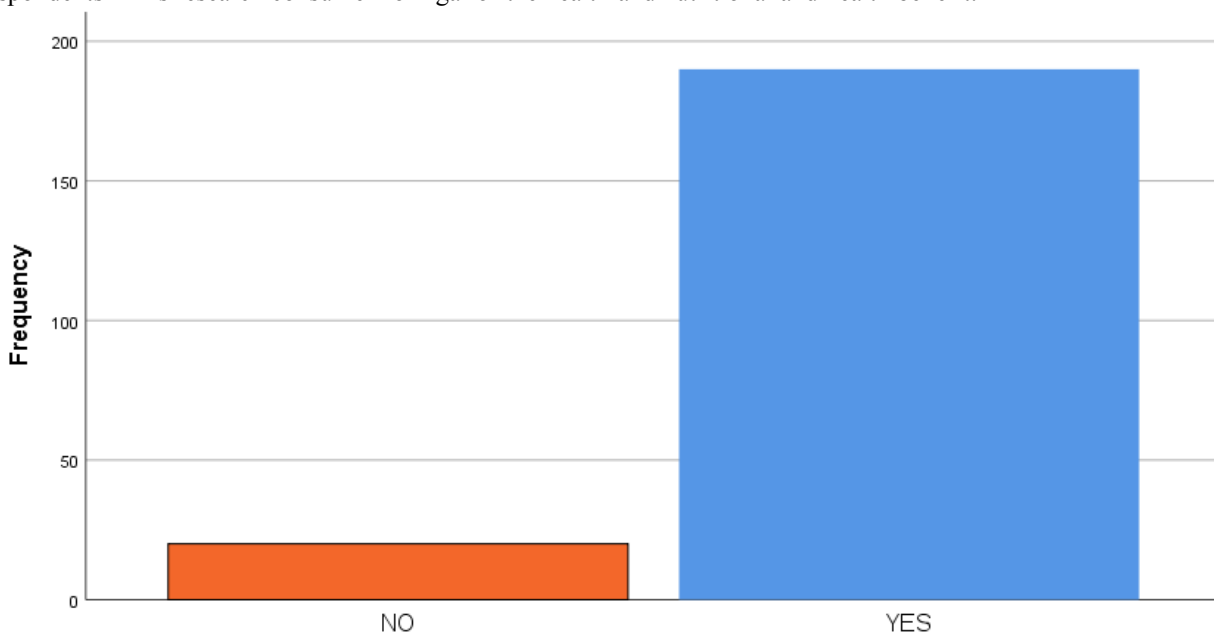


Figure 1: LEVEL OF AWARENESS OF THE HEALTH BENEFIT OF MORINGA

Table 4.2:- Rate of Awareness of the Health Benefit and Consumption of Moringa.

Variables	Frequency	Percentage	Rate
Do you take Herbs/Traditional medicine?			
Yes	140	66.66	
No	70	33.33	
Are you aware of the health benefit of moringa and it's used to treat skin infections, anaemia, anxiety, asthma, blackheads, blood impurities, bronchitis, catarrh, chest congestion, cholera,			

and many other illnesses?			
Yes	190	90.47	0.9047
No	20	9.52	
Do you eat moringa leaf or any other part of the tree			
Yes	120	57.14	0.5714
No	90	42.85	
Why Don't you eat moringa leaf or any other part of the tree?			
I don't like the taste	20	9.52	
I don't like the smell	30	14.28	
It is difficult to access	160	76.19	
	210	100	
Field Survey (2020) Computed Using STATA 14			

Conclusion and Recommendation:-

The study concluded that the rate of awareness about moringa was high however the consumption rate was low because of difficulty of access. It was therefore recommended that an advocacy and awareness campaign be carried out to encourage urban dwellers to plant moringa as part of their ornamental crops in their compound, this will ease the difficult encounter in accessing the tree.

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