



Comparing Nutritional Awareness of Honey Values between Rural and Urban Dwellers in Ikorodu, Lagos State

Arimi K^{1*}, Joshua TA² and Fatufe O³

¹Distance learning Centre, University of Ibadan, Nigeria

²Department of Sociology, University of Ibadan, Nigeria

³Department of Agricultural Extension and Rural Development, University of Ibadan, Nigeria

*Corresponding author: Arimi Kayode, Distance learning Centre, University of Ibadan, Ibadan Oyo State, Nigeria, Email: arimi2009@yahoo.com

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Abstract

Honey offers immense health benefits to its consumers. Despite honey's benefits to its consumers, it is unclear if there are differences in the nutritional knowledge of honey consumers in urban and rural areas. As a result, this study determined the knowledge and awareness of the nutritional values of honey among rural and urban residents of Ikorodu Local Government Area in Lagos State in order to promote its production and consumption for a healthy lifestyle. A multistage sampling approach was employed to select 147 participants. Information was collected on socioeconomic characteristics, knowledge of the nutritional value of honey, sources of awareness of the nutritional value of honey, and respondents' attitudes towards honey use. Data were analysed using descriptive and inferential statistical tools. The majority (64.8%) of participants were men, while 35.2% were women. The average age of the respondents was 41 years, with the majority (65.5%) married and earning an average of N17, 007. The majority (74.6%) of respondents had a positive view of honey consumption. 83.8% of respondents were well-informed about honey's nutritional value. There was a significant difference in knowledge about the nutritional value of honey between rural and urban dwellers ($t = -3.0$; $p \leq 0.05$). To increase honey sales in rural areas, marketing techniques should emphasise the nutritional value of honey to potential consumers.

Keywords: Nutritional Value; Honey; Rural; Urban Dwellers

Introduction

Apis mellifera bees produce honey, which contains a wide range of substances, the majority of which are carbohydrates, glucose, and fructose [1]. Honey contains between 13% to 23% water [2]. Bees generate natural honey by secreting flower nectars, which are generally acknowledged as food and medicine by all generations [3,4]. Natural honey is popular among people of all ages, and its use cuts beyond cultural and ethnic boundaries. All religious and cultural beliefs supported and accepted the usage of honey. Honey consumption is growing due to its therapeutic properties [4]. Honey sales are increasing as a result of the increasing

use of honey in natural remedies, the growing use of honey in the formulation of medications for the treatment of cough and acute throat infections due to its antiviral, antifungal, and antibacterial properties, and scientific confirmation of its therapeutic properties [5]. Furthermore, the introduction of numerous organic honey products and significant investments in organic foods by market participants present attractive potential for them during the projection period.

The market for organic honey will continue to develop as consumers become more aware of the benefits of organic honey as well as the disadvantages of chemical-based alternatives [5]. Natural honey has long been recognised for

Methodology

Study Area

This study was carried out in the Ikorodu Local Government Area of Lagos State. Ikorodu Local Government Area is the second most populous in Lagos State, with an estimated population of 2 million people. It has six administrative areas: Imota, Igbogbo, Ijede, Ikorodu North, Ikorodu West, and Ikorodu.

The multistage sampling technique was used to select respondents. The Ikorodu local government area is divided into urban and rural areas. The rural areas include Imota (203 households), Igbogbo/Bayeku (141 households), and Ijede (134 households), while the urban centres include Ikorodu North (601 households), Ikorodu West (212 households), and Ikorodu South (139 households). Ten percent of the households were selected to give 147 responses from the 1472 households outlined in Table 1 below. Through an interview schedule, information was collected on respondents' socioeconomic characteristics, knowledge of the nutritional value of honey, sources of awareness of the nutritional value of honey, and attitudes towards honey use.

its medical properties, but it is also useful as a food sweetener, complete food, and natural beauty agent [1,6]. Honey contains a variety of nutritional properties; consequently, consumers should be aware of and knowledgeable about these values. Honey consumption is projected to increase as awareness and knowledge of its health benefits increase.

Despite the benefits of honey [7], there is a lack of information about its nutritional knowledge gap among rural and urban consumers. Zanchini, et al. [8] discovered that little attention has been paid to the factors that influence consumers' use of honey for its health advantages and medicinal capabilities. If consumers are to make informed choices for health and nutritional improvement, they must be aware of the nutritional value of what they consume. As a result, this paper investigates the nutritional knowledge of honey among rural and urban populations in the Ikorodu local government area, to encourage more people to consume honey for a healthier lifestyle.

This study focuses on the following objectives: Determine the respondents' personal characteristics, assess their level of knowledge about the nutritional value of honey, identify sources of awareness about the nutritional value of honey, and determine their attitude towards honey consumption.

S/N	Administrative Area	Household population	Sample Size (10%)
Rural Areas			
1	Imota	203	20
2	Igbogbo/Bayeku	141	14
3	Ijede	134	13
Urban Areas			
1	Ikorodu North	601	60
2	Ikorodu West	212	21
3	Ikorodu	139	14
Total		1472	147

Table 1: Administrative areas and sample size.

Results

Table 2 shows the results of respondents' socioeconomic

characteristics. The majority (64.8%) of participants were men, while 35.2% were women.

Socioeconomic Characteristics	Frequency	%
Sex		
Male	92	64.8
Female	50	35.2
Age		
20-29	22	15.5

30-39	40	28.2
40-49	53	37.3
50 and above	27	19
Marital status		
Single	40	28.2
Married	93	65.5
Divorced	6	4.2
Widowed	3	2.1
Education		
Primary	15	10.5
Secondary	67	47.2
Tertiary	48	33.8
No formal education	12	8.5
Occupation		
Civil service	53	37.3
Private sector	42	29.6
Self-employed	38	26.8
Unemployed	9	6.3
Income		
<10,000	23	16.2
10,001-30,000	93	65.5
30,001-50,000	20	14.1
>50,000	6	0.4

Table 2: Socio-Economic Characteristics of Respondents.

Source Field Survey 2020

Table 3 shows the results of the participants on their attitudes toward the consumption of honey.

Attitudinal statement	Agreed Frequency	%	Disagreed Frequency	%	Not sure Frequency	%
I consume honey every time	102	71.8	31	21.8	9	6.3
I seek more information about the nutritional value of honey	129	90.8	7	4.9	6	4.2
Spending personal money to acquire honey is not worthwhile	5	3.5	135	95.1	2	1.4
I care much about the quality of honey consumed in my family	134	94.4	5	3.5	3	2.1
I think it is safe to consume honey	142	100	-	-	-	-
I do not like consuming honey	-	-	140	98.6	2	1.4
Honey is of high nutritional benefit to the body	136	95.8	-	-	6	4.2
Honey is not readily available in our community	62	43.7	80	56.3	-	-

It is very difficult to differentiate between original and fake honey in our community	134	94.4	8	5.6	-	-
Fake honey has the same nutritional content as the original	10	7	131	92.3	1	0.7
The source of awareness of the nutritional value of honey has influenced my consumption of honey	128	90.1	-	-	14	9.9
The cost of acquiring honey is inexpensive	57	40.1	80	56.3	5	3.5

Table 3: Attitudes of respondents towards consumption of honey (N=142).

Source Field Survey, 2020

Table 4 depicts the results of sources of information

on the nutritional value of honey. These include Television (67.6%), the internet (39.4%), and magazines/journals (47.9%).

Sources of information	Frequencies of receiving the information					
	Always Frequency	%	Occasionally Frequency	%	Not used Frequency	%
Television	16	11.3	96	67.6	30	21.1
Internet	56	39.4	56	39.4	30	21.1
Magazines/journals	44	31	68	47.9	30	21.1
Newspapers	44	31	77	54.2	21	14.8
Phone	68	47.9	44	31	30	21.1
Blogs	51	35.9	43	30.3	48	33.8
Personal Interaction	126	88.7	16	11.3	-	-

Table 4: Sources of information on nutritional values of honey among the respondents (N= 142).

Field Survey; 2020

Table 5 presents the results of the knowledge of the respondents on the nutritional value of honey.

Sr. No	Questions on Nutritional value and the uses of honey	Correct Frequency	%	Wrong Frequency	%
1	Honey is rich in sugars	104	73.2	38	26.8
2	Honey contains vitamins	126	88.7	16	11.3
3	Honey is used in the treatment of wound	130	91.5	12	8.5
4	Honey contains flavonoids that helps in preventing diseases	132	93	10	7
5	Honey helps with allergies	133	93.7	9	6.3
6	Honey is rich in antioxidants	139	97	3	2.1
7	Honey can lower blood pressure	126	88.7	16	11.3
8	Honey helps to improve cholesterol	131	92.3	11	7.7
9	Honey can help suppress cough in children	131	92.3	11	7.7
10	Has a positive effect against dental plaque development and gingivitis	130	91.5	12	8.5
11	Honey promotes good health	110	77.5	32	22.5

Table 5: Awareness and knowledge of the respondents on the nutritional value of honey (N=142).

Knowledge category	Frequency	Percent	Mean
Low	119	83.8	13.6
High	23	16.2	

Field Survey; 2020

Table 6 presents the results of respondents' awareness of the nutritional value of honey.

Awareness	Aware Frequency	%	Not Aware Frequency	%
Nutritional value of honey	122	85.9	20	14.1
Health benefits of honey	117	82.4	25	17.6

Table 6: Awareness of the nutritional value of honey (N = 142).

Field Survey; 2020

Table 7 presents the results of the difference in the nutritional knowledge of Urban and rural dwellers.

Locations	N	Mean	Standard deviation	Standard error	Mean difference	t-value	Degree of freedom	p-value	Decision
Urban	49	13.7	35	0.6	-1.6	-3	140	0.003	S
Rural	93	12.1	3.3	0.3					

Table 7: Test of the difference in the nutritional knowledge of Urban and rural dwellers.

Discussion

The participants were males and women (Table 2). This finding demonstrated that both sexes consumed honey, the high representation of males could be attributed to a random selection of respondents. Both men and women consumed honey in their homes [9], but 60% of the users were women. The male and female participants are of varying age groups. The mean age of the respondents was 41 years. The findings indicate that there are no age restrictions to honey consumption. Young people notably consumed honey because it was offered as a dietary supplement at their family table. This finding is consistent with Zak [10] assertion that young people consume honey because it is always present at their family's dining tables, and that older people eat honey for its pro-health properties; they believe honey contains a lot of nutrients and has some therapeutic properties, particularly among married people.

A higher percentage of respondents were married; given the respondents' mean age of 41 years, they were expected to get married, provide food for their family members, and support their children's schooling. Secondary school education had the biggest proportion of responses. Additionally, few of the total respondents had primary education, some had higher education, and the minority had

no formal education. This finding indicates that the majority of respondents were educated, which may influence their food consumption patterns. Because the majority of them are educated, it is believed that they understand the nutritious significance of honey, which will encourage respondents to consume it. This finding is reinforced by Wahab, et al. [9], who discovered that those with university education consumed more honey than those with lower education status.

The distribution of respondents by occupation shows that some were civil servants, less than half of the respondents were private sector workers, and few were self-employed while a minority of the respondents were unemployed. The type of employment may influence participants' income. The average income is N17, 007. Because the majority of respondents were working to supplement their income, they may have been able to purchase honey for their families.

Most of the respondents said they always consumed honey. This demonstrates that the majority of respondents consumed honey consistently, which may have improved their nutritional and health status. Bogdanov, et al. [11] discovered that honey consumption lowered cholesterol and slightly increased high-density lipoprotein cholesterol in adults while boosting better blood formation and greater weight gain in newborns. Furthermore, animal model

studies indicate that honey may be effective in the therapy of metabolic, cardiovascular, and neoplastic illnesses [12].

The majority of respondents wanted to learn more about the nutritional value of honey. Some participants stated that honey has a high nutritional content that boosts the immune system and protects the body from infections and viruses, which is consistent with Palma-Morales, et al. [7] finding. Because they realised the worth of honey, the majority of respondents said that no amount of money spent on honey consumption was a waste, and the majority of consumers were also conscious about the quality of honey consumed at home. Less than half of the respondents agreed that honey is easily available for purchase in their area. This recommends that more honey should be available in urban as well as rural areas to improve consumption.

Table 4 lists several sources of information on the nutritional value of honey. These include Television, the internet, magazines/journals, and personal interactions with friends, newspapers, and social media. The findings suggest that television, radio, and personal interaction with friends were the most common sources of information. Honey marketers can use this medium to provide essential information to prospective consumers.

According to Table 5, the majority of respondents correctly answered the question on honey's nutritional value, which states that honey is high in sugar and can be used for sweetening. The majority of participants got a question stating that honey contains vitamins correctly. This is consistent with the finding of Orfanakis, et al. [1], who concluded that honey is high in sugar and includes vitamins. The majority of respondents stated that honey was used to cure wounds and prevent disease. Salehi, et al. [13] confirmed that honey includes flavonoids that can enhance the human immune system against dental plaque and gingivitis.

Nearly all the respondents were aware that honey helps with allergies, and more than half of the participants believed that honey is high in antioxidants, which can combat allergies. This is corroborated by Salehi, et al. [13], who claims that honey contains antioxidants and has the potential to combat allergies. Some participants stated that honey consumption could help prevent disorders like coughing and high blood pressure. Khalil, et al. [14] discovered that honey supplements lower blood sugar levels in hypertensive individuals.

The majority of respondents had adequate knowledge of honey's nutritional value. Given that the majority of respondents were aware of this, it is likely that honey was used in their family dishes. Participants were well-informed about the nutritional value and benefits of honey (Table

6). This could be attributed to personal interaction, the preservation of cultural legacy, and easy access to high-quality honey in rural areas. This is consistent with Wahab, et al. [9], who reported that respondents were aware of the healthy benefits of honey. It is anticipated that increased awareness will translate into consumption among consumers.

Table 7 shows that there was a significant difference in knowledge of nutrition ($t = -3.0$; $p = 0.00$) between rural and urban participants. The disparity in knowledge of nutrition between rural and urban populations could be attributed to the fact that urban dwellers are better educated than rural people. This study agrees with Kowalczyk, et al. [15] that consumption and understanding of the nutritious value of honey changes with educational level, with higher education resulting in greater knowledge.

Conclusion

Consumers' understanding of the nutritional value of honey should extend to its consumption. This study found that the majority of respondents were aware of the health benefits of consuming honey, which is predicted to lead to increased consumption of honey among rural and urban residents. However, urban individuals were more knowledgeable about honey's nutritional benefits than rural participants. This means that there may be a greater demand for honey in cities than in rural areas.

Recommendation

As a result of the findings, one of the effective marketing tactics for increasing honey sales in rural areas is to emphasise its nutritional benefits to potential consumers.

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