

Assessment of the Frequency of the Consumption of Traditional Liberian Soups: A Case Study among 14 Gobachop Marketers, 14 Omega Market, Liberia

Forkpah Pewee*, Helena Mulbah**, Geetah Saydee***

*University of Liberia, Undergraduate Public Health Department
Email: (forkpahpewee91@gmail.com)

**Drexel University, Department of Food & Hospitality Management
Email: (yelegonmeek@gmail.com)

***University of Liberia, Undergraduate Public Health Department
Email: (geessaydee@gmail.com)

Abstract

Background: In Liberia, soups are considered as identity traits. There are at least 20 soups in Liberia. Few of them are attached to particular tribes. Regardless of existing beliefs of them, majority of the population does not have sufficient knowledge of their consumption level as well as the importance these soups have on the human body.

Methods: Both qualitative and quantitative research approaches were utilized in this study. The Descriptive Research Design was used during the research process in order to illustrate the frequency, central tendency and spread of data, plot, table and percentage of variables. The purposive non-probability sampling method was used to select the study population. Jamovi 2.3.2 and Microsoft Excel 2010 were used to do the data analysis.

Results: This study showed that potato greens (21.4%), followed by cassava leaf (16.6%) and torgborgee (16.6%) are the three most favorite soups of 14 Gobachop Marketers. It further indicated that the soups that are mostly consumed among the respondents (more than 6 times per month) are potato greens (50.2%), torgborgee (34.3%), cassava leaf (29.8%) and beans (25.3%). All of the traditional Liberian soups were classified into three groups; namely, thick, thin and special soups. The importance of these soups were well stated.

Conclusion: Identifying the frequency of the consumption of traditional Liberian soups is a better way to help all Liberians to know which soups are mostly consumed by the population on a monthly basis and their importance thereof to the human body. This research is serving as a baseline study to inform the decisions of major stakeholders when developing a national food guide in the future.

Keywords —Soups, Traditional Liberian Soups, Consumption of Traditional Liberian Soups, Assessment of Liberian Soups

1. Rationale and Background Information:

Soup is a knowingly flavorsome broth, which is mostly prepared by cooking vegetables, fish, meat, or grains in specific proportions [6, 5, 3]. Soup is considered a nutrition powerhouse, which is usually packed with carbohydrates, protein, vitamins and minerals, fiber, and antioxidants [10]. There are more than 250 varieties of soups in various cuisines around the globe [6].

Soup has been defined in slightly different ways during various periods of time in the history of mankind. *Le Viandier de Taillevert* defined soup as: “semi-liquid food, mostly with soaked bread. Also sop, soppys: a bit of bread for dipping in a liquid, such as a soup or wine.” And the 1856 edition of Webster’s dictionary said “Fr. Soupe; Lt. zuppa, sop; Sp. Sopa, sop, or soup; G. suppe; D. soep; Ice. Saup. Strong broth; a decoction of flesh for food, highly seasoned. To sop [8].”

The English word 'soup' comes from the French term 'soupe.' This word, meanwhile, has its origins in the Vulgar Latin term 'suppa' which means a bread soaked in broth. Interestingly, even the concept of restaurant is related to soup. In the 16th century, street vendors in Paris used to sell a delicious liquid paste called 'restauratiffs' to the common people. Later, these kiosks that sold restauratiffs came to be known as restaurants [6].

The popularity of soups today may be due to increased nutrition consciousness, to a desire for simpler or lighter meals, or to an increased appreciation of how appetizing and satisfying soups can be [3]. The origin of soup, like that of many foods, dates back to practically the beginning of history [5]. It is believed that the first bowl of soup was prepared around 20,000 BC [6]. However, the first soup known was probably not made with meat. For instance, the mess of pottage for which Esau sold his birthright was soup made of red lentils. Later on meat came to be used as the basis for soup because of the agreeable and appetizing flavor it provides. Then, at one time in France a scarcity of butter and other fats that had been used to produce moistness and richness in foods, brought about such clear soups as bouillon and consomme [5]. Humans began consuming cooked food after the discovery of pottery and vessels. Before that, they consumed raw meat and then began roasting it over fire. They began cooking paste-like foods after mud vessels and clay pots became parts of their life [6].

From the earliest days of the bronze and iron ages came the discovery of prepared dishes. Man advanced from simply eating wild grains, seeds, or meat placed in or near a fire to preparing rudimentary dishes that followed some vague notion of food as a pleasing experience rather than the simple necessity of fueling the body. Soup has been at the forefront of filling and nutritious meals since that time [8].

In Liberia, soups serve as nutritional identity traits. There are at least 20 varieties of soups in Liberia. Few of them are tied to specific ethnic groups. They are like cultural soups to them, which they believe is a heritage to be passed down to the next generations to come. Regardless of their fundamental beliefs of them, majority of the population does not have excellent knowledge of the benefits or importance these soups have on the human body as well as the frequency of consumption of these soups by them. Such is inherently ingrained in the rate of adult illiteracy among the population as stated by World Bank 2017 data and UNESCO 2017 data to be 51.7 percent [12, 4]. From observations over the years, cassava leaf is a traditional soup of the people from Grand Cape Mount County, which is occupied by Vai ethnic group. The torgborgee is highly considered a traditional soup for the Lorma ethnic group from Lofa County. The palm butter is seen as a traditional soup for few Southeastern counties, which is being mostly eaten by the Kru and Grebo ethnic groups from Grand Kru and Maryland Counties, respectively. The Kru ethnic group also likes to eat a lot of pepper. It is safe to note that the Bassa ethnic group from Grand Bassa County and Kru ethnic group consume lot of pepper soup because they experience influx of fresh cold water fishes from the naturally existing and comfortable beaches or seashores in their regions. There is no way the Bassa people can swallow fufu or dumboy or dipper without pepper soup with chicken feet and dried bony or fish. The Bassa people are noted for increased consumption of fufu in Liberia; while the Gio and Mano people consume a lot of GB with delicious goat pupu.

Liberia is rich with good vegetables that can help to keep the population well. However, the methods of preparation of most of those vegetables into soups make it a bit difficult for Liberians to consume the required nutrients found in them. In order to grab a clear understanding about the regular consumption of traditional Liberian soups, it is fair enough to see this research work as an important baseline tool for future

studies in this domain. Identifying the frequency of the consumption of traditional Liberian soups has the distinct ability to help all Liberians to know which soups are mostly consumed by the population on a monthly basis and their overall importance thereof. This research has the tenacity to inform the decisions of major stakeholders when developing a national food guide in the future.

It is of essence to note that one of the obvious limitations of this study is the lack of sufficient peer-reviewed articles on the topic of interest.

1.1 Study Objectives

In this study, the researchers have interest:

- 1) To determine the frequency of the consumption of traditional Liberian soups among marketers in Omega Market.
- 2) To illustrate the classification of traditional Liberian soups.
- 3) To highlight the importance of traditional Liberian soups.

2 Methodology

Both qualitative and quantitative research approaches were utilized in addressing the research objectives. In the questionnaires that were used, there were structured questionnaire for quantitative component and existing secondary reports for qualitative process. It involved collecting and converting data into numerical form for smooth analysis of data or discussion [2].

2.1 Study Design, Sampling Method and Sample Population

The Descriptive Research Design was used during the research process in order to measure the frequency, central tendency and spread of data sets as well as illustrate the plot, table and percentage of various variables. It was selected to obtain reliable information on the existing situation of the frequency at which the target population consume

traditional Liberian soups [1]. The baseline data collection was done by gathering and evaluating primary/field work data and existing/secondary data sources from Google sources/blogs, and oral and written history.

The purposive non-probability sampling method was used to select the target population. It is important to state that Gobachop market is one of the most populated market grounds in Montserrado County. The marketers mostly consume different types of soups on a daily basis. They are also pockets of individuals from diverse ethnic and religious backgrounds. As such, it was feasible to make them key informants in this study. They represent a large proportion of citizens who eat at most two soups per day based on their taste and preference. They eat soup during normal business hours (all Liberians refer to that as 'start-my-day meal') and also eat soup when they get home after marketing their goods or products. They represent a significant proportion of the population because they make use of variety of soup on a weekly basis. The age bracket of above 18 years was considered because we are cognizant of the fact that marketeers who are under the age of 18 years should be in school, not doing street peddling during school hours.

The sample size of the study population was calculated using the Taro Yamane formula as shown below:

$$n = \frac{N}{1 + N(e)^2}$$

Where n signifies the sample size, N signifies the population under study, and e signifies the margin of error.

$$n = 1490 / (1 + 1490(0.05)^2)$$

$$n = 1490 / (1 + 1490(0.0025))$$

$$n = 1490 / (1 + 3.725)$$

$$n = 1490 / 4.725$$

$$n = 315$$

The sample size result indicates that the minimum number of respondents in this study must be 315 in order to maintain a 95% confident interval.

2.2 Data Collection and Statistical Analysis

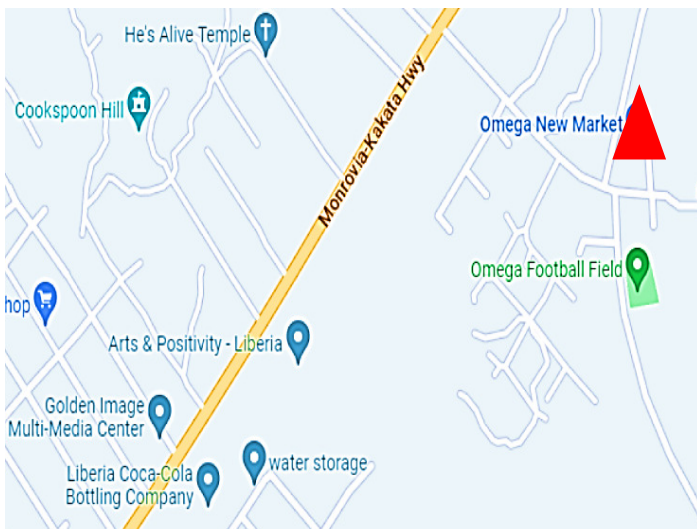
Questionnaires were used as the data collection methods. A demographic survey to develop respondent's profile was done. The questions in this category were close-ended (static) questions in the form of multiple choice (single response) [9]. The demographics section had 4 possible responses (age range, gender, ethnicity and monthly family income). The section that had to do with knowledge and consumption of traditional Liberian soups had 19 possible responses. With regards to such, the total variables used were 23 variables.

The statistical analysis tool in Jamovi 2.3.2 was used to analyze the data that was collected [11, 7]. With the descriptive analysis tool, the following was analyzed: the mean of the sample data, the mode of the sample, the minimum and maximum values, the sample standard deviation measure for the data set, graphs, tables and percentages with data condensation from interactions.

3 Data Analysis

The data entry was done in Jamovi 2.3.2. The data analysis was done in Jamovi 2.3.2 and Microsoft Excel 2010.

Google Map of Omega New Market (14 Omega Market)



Images of 14 Gobachop Market (14 Omega Market)



<https://thenewdawnliberia.com/14-omega-market-caretakers-at-each-others-throats/>



<https://inquirenewspaper.com/mcc-public-works-clean-red-light-market-as-govt-to-relocate-gorbachev-marketers/>

3.1 Results and Discussion

Frequencies of Demographics

Table 1: Frequencies of Age			
Levels	Counts	% of Total	Cumulative %
18-24	58	18.5%	18.5%
25-36	128	40.8 %	59.3 %
37-60	116	36.9%	96.2 %
Above 60	12	3.8%	100.0 %
Frequencies of Gender			
Levels	Counts	% of Total	Cumulative %
Male	112	35.6 %	35.6 %
Female	203	64.4 %	100.0 %

Table 2: Frequencies of Tribe/Ethnicity			
Levels	Counts	% of Total	Cumulative %
Kpelleh	106	33.8 %	33.8 %
Kru	16	5.1 %	38.9 %
Krahn	7	2.2 %	41.1 %
Mano	27	8.6 %	49.7 %
Gio	20	6.4 %	56.1 %
Kissi	31	9.9 %	65.9 %
Gbandi	12	3.8 %	69.7 %
Bassa	29	9.2 %	79.0 %
Mandingo	17	5.4 %	84.4 %
Lorma	35	11.1 %	95.5 %
Mande	1	0.3 %	95.9 %
Vai	5	1.6 %	97.5 %
Gola	1	0.3 %	97.8 %
Grebo	7	2.2 %	100.0 %

Table 3: Frequencies of Monthly Family Income			
Levels	Counts	% of Total	Cumulative %
5-20,000	195	65.9%	65.9%
20,005-40,000	93	31.4 %	97.3 %
40,005-60,000	4	1.4 %	98.6 %
60,005-80,000	2	0.7 %	99.3 %
Above 80,000	2	0.7 %	100.0 %

Descriptive Statistics of Responses

Table 4: Descriptives of cassava leaf, fever leaf, palava sauce, potato greens and palm butter					
	Cassava leaf	Fever leaf	Palava sauce	Potato greens	Palm butter
N	315	312	314	311	310
Missing	0	3	1	4	5
Mean	2.49	1.44	1.74	3.08	1.75
Median	2	1.00	1.00	4	1.00
Standard deviation	1.16	0.839	0.908	1.08	0.995
Minimum	1	1	1	1	1
Maximum	4	4	4	4	4

Legend: 1-4 responses represent the following: 1 (once in a while); 2 (1-3 times a month); 3 (4-6 times a month); and 4 (above six times a month)

Plots

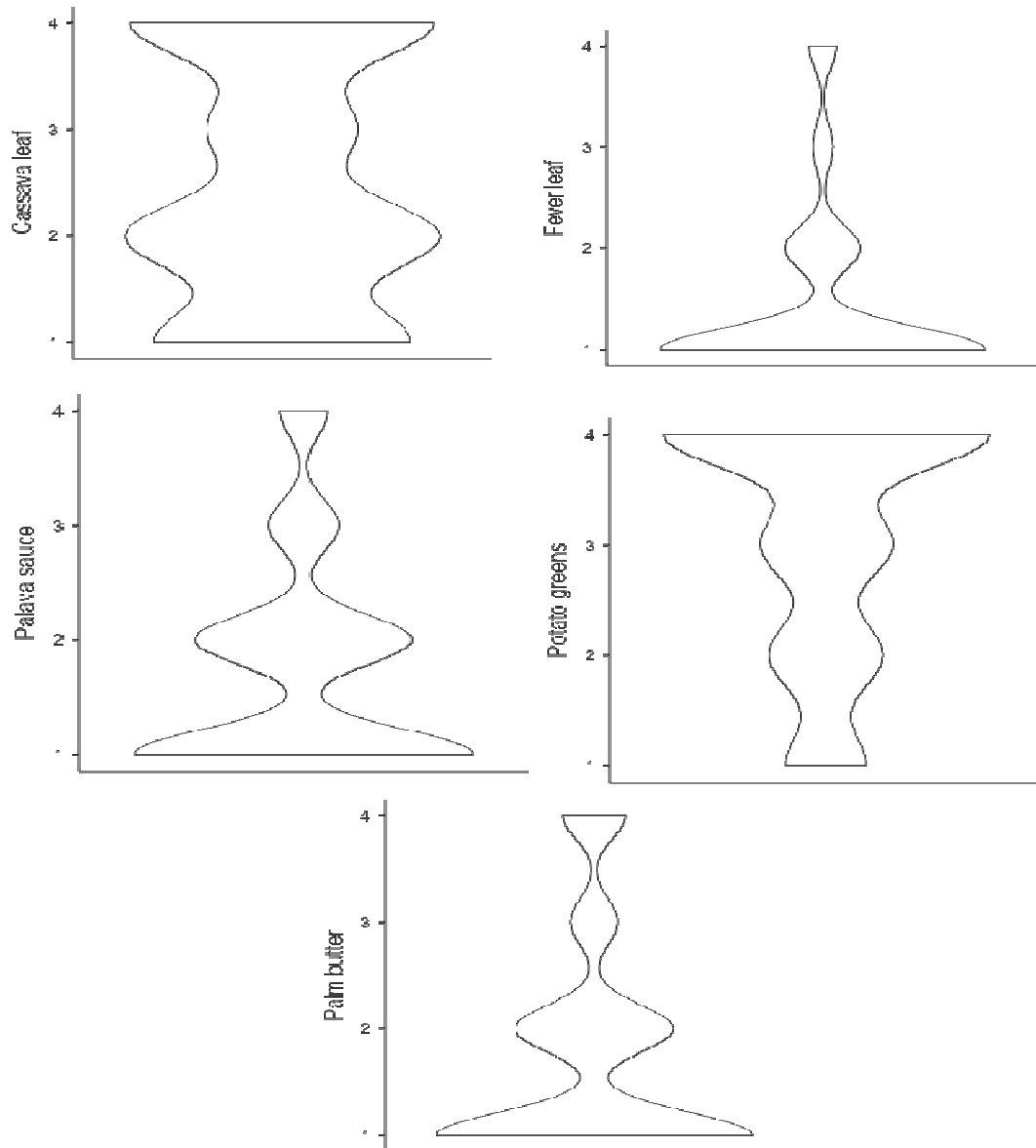


Figure 1: Plots of cassava leaf, fever leaf, palava sauce, potato greens and palm butter

Descriptive Statistics of Responses

Table 5: Descriptives of beans, cabbage, egg plant, bitter ball and eddo

	Beans (any type)	Cabbage	Egg plant	Bitter ball	Eddo
N	312	309	307	311	307
Missing	3	6	8	4	8
Mean	2.29	1.29	1.21	2.24	1.36
Median	2.00	1	1	2	1
Standard deviation	1.20	0.640	0.512	1.11	0.781
Minimum	1	1	1	1	1
Maximum	4	4	4	4	4

Plots

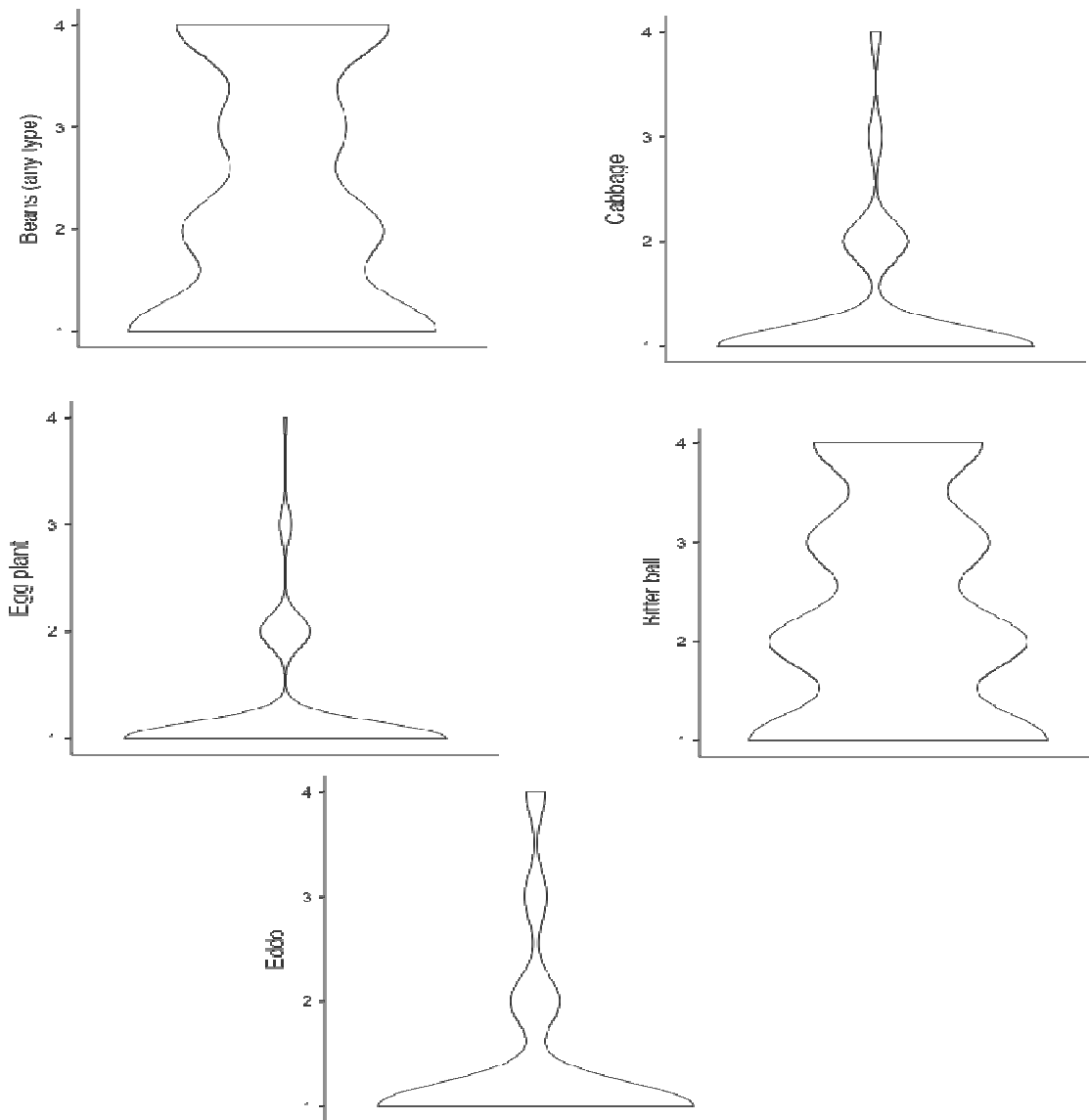


Figure 2: Plots of beans, cabbage, egg plant, bitter ball and eddo

Descriptive Statistics of Responses

Table 6: Descriptives of water greens, torgborgee, okra, pepper soup and pumpkin					
	Water greens	Torgborgee (any type)	Okra	Pepper soup	Pumpkin
N	311	311	311	312	307
Missing	4	4	4	3	8
Mean	1.99	2.54	1.56	1.68	1.36
Median	2	3	1	1.00	1
Standard deviation	1.05	1.25	0.89	0.98	0.698
Minimum	1	1	1	1	1
Maximum	4	4	4	4	4

Plots

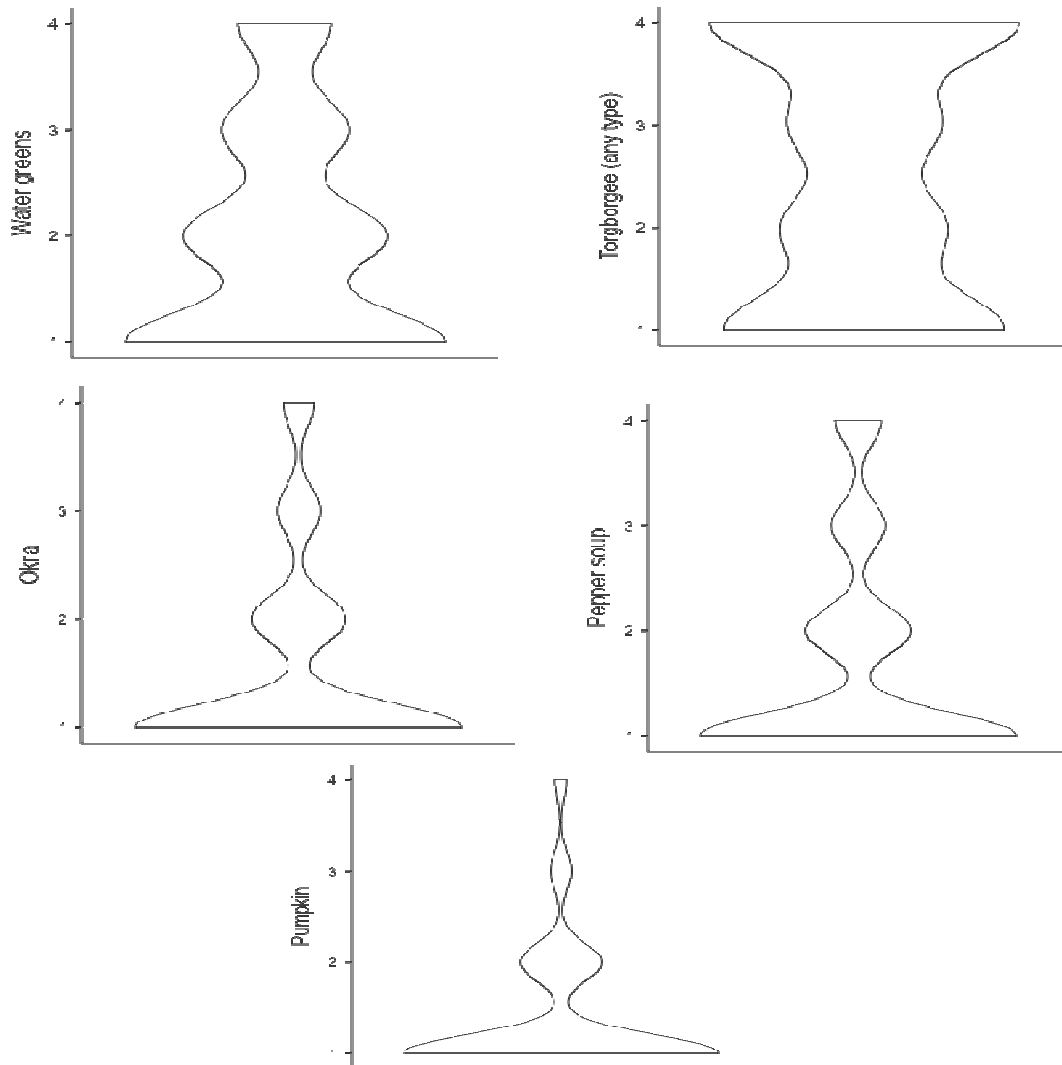


Figure 3: Plots of watergreens, torgborgee, okra, pepper soup and pumpkin

Descriptive Statistics of Responses

	Gravy	Collard greens	Ground peas soup	Kitteley
N	313	310	308	314
Missing	2	5	7	1
Mean	1.38	1.15	1.38	2.00
Median	1	1.00	1.00	2.00
Standard deviation	0.741	0.450	0.804	1.10
Minimum	1	1	1	1
Maximum	4	4	4	4

Plots

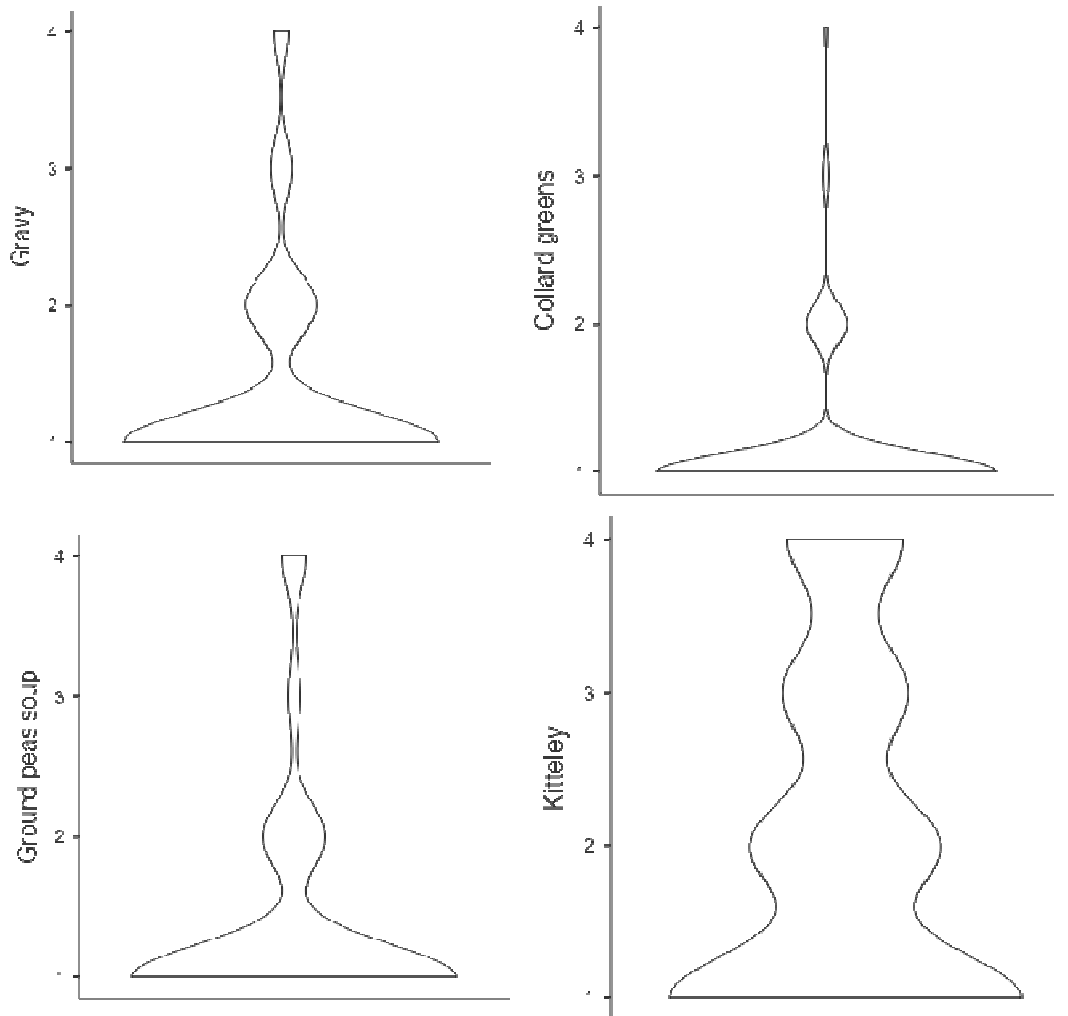


Figure 4: Plots of gravy, collard greens, ground peas soup and ketteley

Frequencies of Favorite Soup

Tablw 8: Frequencies of Favorite soup			
Levels	Counts	% of Total	Cumulative %
Pumpkin	8	2.6%	2.6%
Potato greens	67	21.4%	24.0%
Beans	35	11.2%	35.1%
Cassava leaf	52	16.6%	51.8%
Torgborgee	52	16.6%	68.4%
Palm butter	17	5.4%	73.8%
Pepper soup	24	7.7%	81.5%
Palava sauce	11	3.5%	85.0%
Okra	7	2.2%	87.2%
Kitteley	10	3.2%	90.4%
Cabbage	3	1.0%	91.4%
Ground peas soup	9	2.9%	94.2%
Water greens	5	1.6%	95.8%
Fever leaf	5	1.6%	97.4%
Collard greens	2	0.6%	98.1%
Bitter ball	6	1.9%	100.0%

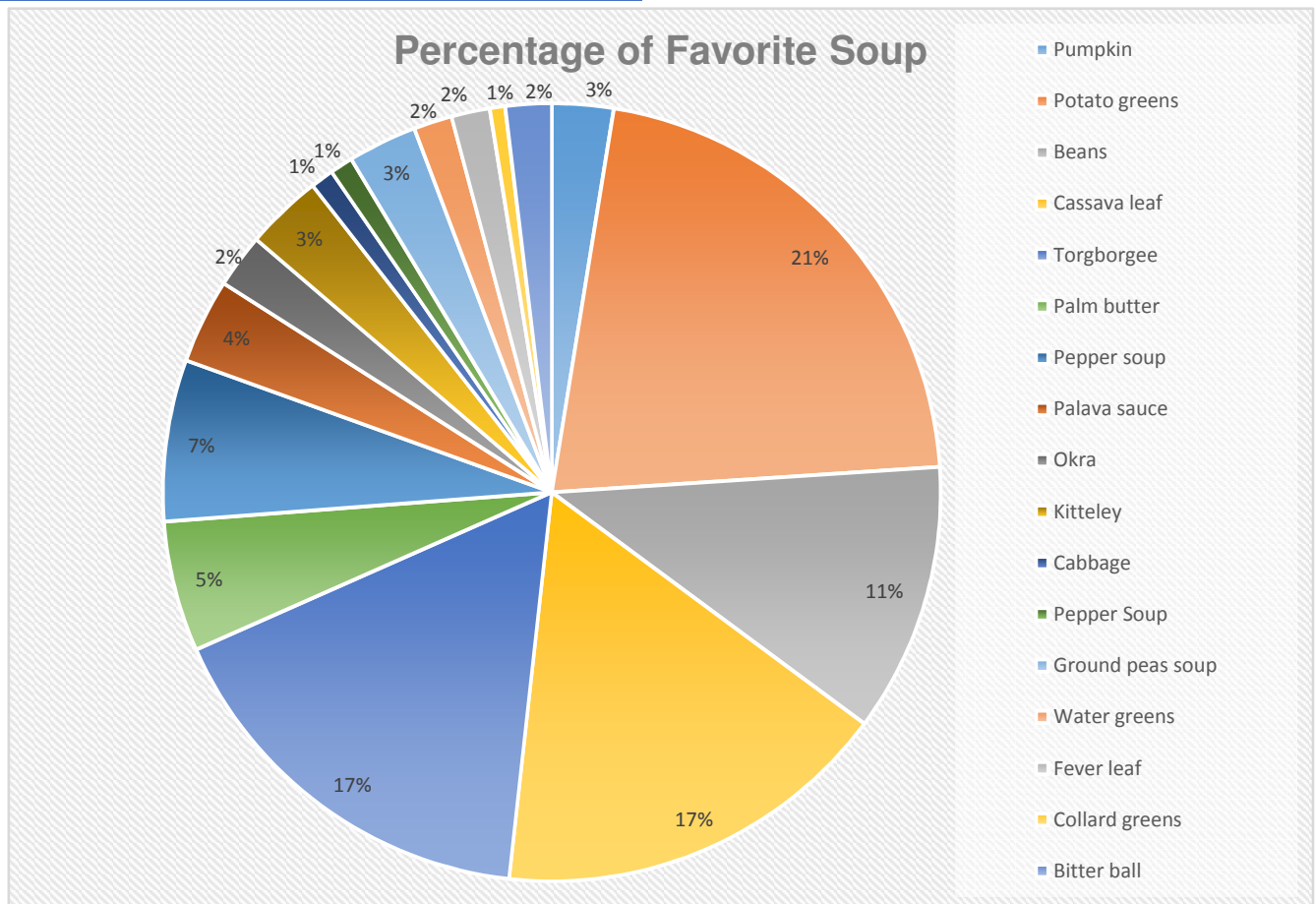


Figure 5: Pie chart of percentage of favorite soup

Discussion

This discussion will deal with frequencies, descriptives, plots, or graph of various variables within the study from section 1 and 2. Section 1 discusses the demographics of the respondents; while Section 2 discusses the frequency of consumption of traditional Liberian soups.

In Section 1, there are three tables. **Table 1** looks at the frequencies of the age group and gender of respondents. Accordingly, it depicts that 18.5% of the respondents were between the ages 18-24; 40.8% of them were between the ages 25-36; 39.6% of them were between the ages 37-60; while 3.8% of them were above 60 years of age. From the table, majority of those who participated in responding to the questionnaires were between the ages 25-36. Table 1 also shows that 35.6% of the respondents were males; while 64.4% of them were females. This means that there were more female who participated in responding to the questionnaires as compared to their male counterparts.

Table 2 is a view of the frequencies of respondents from diverse ethnic groups or tribes. It illustrates that 33.8% of the respondents were Kpelleh; 5.1% of them were Kru; 2.2% of them were Krahn; 8.6% of them were Mano; 6.4% of them were Gio; 9.9% of them were Kissi; 3.8% of them were Gbandi; 9.2% of them were Bassa; 5.4% of them were Mandingo; 11.1% of them were Lorma; 0.3% of them was Mande; 1.6% of them were Vai; 0.3% of them was Gola; while 2.2% of them were Grebo. This is an indication that majority of those who participated in the survey were Kpelleh. **Table 3** takes a view at the frequencies of monthly family income of respondents. It displays that 65.9% of the respondents earn a monthly family income in the range of \$5-\$20,000 Liberian Dollars (LRD); 31.4% of them earn an income between \$20,005-\$40,000 LRD; 1.4% of them earn an income within the range of \$40,005-\$60,000 LRD; 0.7% of them earn an income between \$60,005-\$80,000 LRD; while 0.7% of them earn above \$80,000 LRD. This means that majority of those who participated in responding to the questionnaires earn a monthly family income within the range of \$5-\$20,000 LRD, which is a sign of abject poverty reigning among majority of the marketers doing business in Gobachop, Omega Market.

In Section 2, there are five tables and five figures. **Table 4** looks at the descriptive statistics of cassava leaf, fever leaf, palava sauce, potato greens and palm butter. It shows that the mean and standard deviation of the abovementioned soups are: cassava leaf (N=315; X=2.49; α =1.16), fever leaf (N=312; X=1.44; α =0.839), palava sauce (N=314; X=1.74; α =0.908), potato greens (N=311; X=3.08; α =1.08), and palm butter (N=310; X=1.75; α =0.995). With this, mean (X) values below 2 show that majority of the respondents said that they consume such soup either 'once in a while' or '1-3 times per month'; while mean values above 2 indicate that majority of the respondents noted that they consume said soup '4-6 times per month' or 'more than 6 times per month'. Figure 1 takes a view at the plots of the frequencies for cassava leaf, fever leaf, palava sauce, potato greens and palm butter. The cassava leaf plot shows that majority of the respondents (30.8%) said they consume cassava leaf '1-3 times per month'; while 29.8% said they do so 'more than 6 times per month'. The fever leaf plot shows that majority of the respondents (72.8%) noted that they consume fever leaf 'once in while' (that is, once after at least two months); while 16.7% said they do so '1-3 times per month'. The palava sauce plot indicates that majority of the respondents (50.3%) said they consume palava sauce 'once in a while'; while 32.2% said they do so '1-3 times per month'. The potato greens plot indicates that majority of the respondents (50.2%) noted that they consume potato greens 'more than 6 times per month'; while 20.3% said they do so '4-6 times per month'. The palm butter plot shows that majority of the respondents (54.2%) noted that they consume palm butter 'once in a while'; while 27.1% said they do so '1-3 times per month'.

Table 5 takes a look at the descriptive statistics of beans, cabbage, eggplant, bitterball and eddo. It shows that the mean and standard deviation of the abovementioned soups are: beans (N=312; X=2.29; α =1.20), cabbage (N=309; X=1.29; α =0.640), eggplant (N=307; X=1.21; α =0.512), bitterball (N=311; X=2.24; α =1.11), and eddo (N=307; X=1.36; α =0.781). Figure 2 takes a view at the plots of the frequencies for beans, cabbage, eggplant, bitterball and eddo. The beans plot shows that majority of the respondents (36.5%) said they consume beans 'once in a while'; while 25.3% said they do so 'more than 6 times per month'. The cabbage plot shows that majority of the respondents (78.3%) noted that they consume cabbage 'once in while'; while 16.2% said they do so '1-3 times per month'. The eggplant plot

indicates that majority of the respondents (87.3%) said they consume eggplant 'once in a while'; while 12.7% said they do so '1-3 times per month'. The bitterball plot indicates that majority of the respondents (33.1%) noted that they consume bitterball 'once in a while'; while 28.3% said they do so '1-3 times per month'. The eddo plot shows that majority of the respondents (78.2%) noted that they consume eddo 'once in a while'; while 12.1% said they do so '1-3 times per month'.

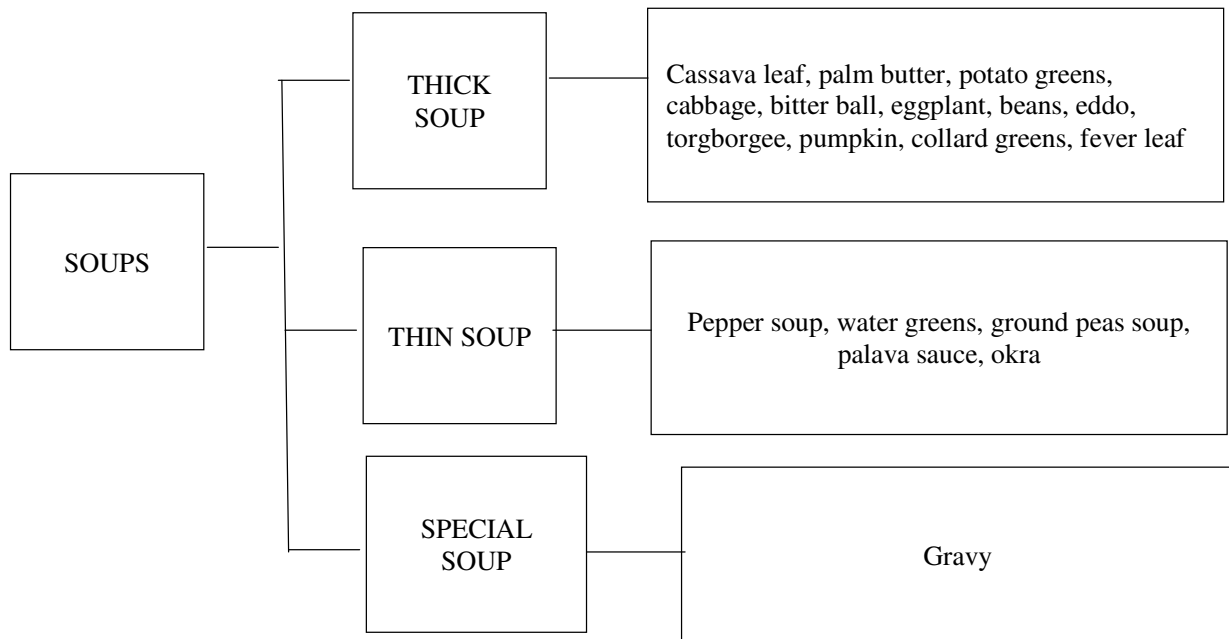
Table 6 takes a look at the descriptive statistics of water greens, torgborgee, okra, pepper soup and pumpkin. It shows that the mean and standard deviation of the abovementioned soups are: water greens (N=311; $X=1.99$; $\alpha=1.05$), torgborgee (N=311; $X=1.54$; $\alpha=1.25$), okra (N=311; $X=1.56$; $\alpha=0.899$), pepper soup (N=312; $X=1.68$; $\alpha=0.983$), and pumpkin (N=307; $X=1.36$; $\alpha=0.698$). Figure 3 takes a view at the plots of the frequencies for water greens, torgborgee, okra, pepper soup and pumpkin. The water greens plot shows that majority of the respondents (43.1%) said they consume water greens 'once in a while'; while 27.3% said they do so '1-3 times per month'. The torgborgee plot shows that majority of the respondents (34.4%) noted that they consume torgborgee 'more than 6 times per month'; while 31.3% said they do so 'once in a while'. The okra plot indicates that majority of the respondents (65.9%) said they consume okra 'once in a while'; while 19.0% said they do so '1-3 times per month'. The pepper soup indicates that majority of the respondents (60.6%) noted that they consume pepper soup 'once in a while'; while 20.2% said they do so '1-3 times per month'. The pumpkin plot shows that majority of the respondents (73.6%) noted that they consume pumpkin 'once in a while'; while 18.9% said they do so '1-3 times per month'.

Table 7 takes a look at the descriptive statistics of gravy, collard greens, ground peas soup and kittedey. It shows that the mean and standard deviation of the abovementioned soups are: gravy (N=313; $X=1.38$; $\alpha=0.741$), collard greens (N=310; $X=1.15$; $\alpha=0.450$), ground peas soup (N=308; $X=1.38$; $\alpha=0.804$), and kittedey (N=314; $X=2.00$; $\alpha=1.10$). Figure 4 takes a view at the plots of the frequencies for gravy, collard greens, ground peas soup and kittedey. The gravy plot shows that majority of the respondents (74.4%) said they consume gravy 'once in a while'; while 16.9% said they do so '1-3 times per month'. The collard greens plot shows that majority of the respondents (87.4%) noted that they consume collard 'once in a while'; while 10.3% said

they do so '1-3 times per month'. The ground peas soup plot indicates that majority of the respondents (76.6%) said they consume ground peas soup 'once in a while'; while 14.6% said they do so '1-3 times per month'. The kittedey indicates that majority of the respondents (45.2%) noted that they consume ground peas soup 'once in a while'; while 24.2% said they do so '1-3 times per month'.

Table 8 and Figure 5 indicate the frequencies and graph of favorite soups that were chosen by respondents. They depict that 2.6% of the respondents chose pumpkin as their favorite soup; 21.4% of them chose potato greens as their favorite soup; 11.2% of them chose beans as their favorite soup; 16.6% of them chose cassava leaf as their favorite soup; 16.6% of them chose torgborgee as their favorite soup; 5.4% of them chose palm butter as their favorite soup; 7.7% of them chose pepper soup as their favorite soup; 3.5% of them chose palava sauce as their favorite soup; 2.2% of them chose okra as their favorite soup; 3.2% of them chose kittedey as their favorite soup; 1.0% of them chose cabbage as their favorite soup; 2.9% of them chose ground peas soup as their favorite soup; 1.6% of them chose water greens as their favorite soup; 1.6% of them chose fever leaf as their favorite soup; 0.6% of them chose collard greens as their favorite soup; while 1.9% of them chose bitterball as their favorite soup. This is an indication that majority of the respondents (21.4%) chose potato greens as their favorite soup, followed by cassava leaf (16.6%) and torgborgee (16.6%). Potato greens and cassava leaf are easily planted in backyard gardens in almost all communities across the country. For the torgborgee, the soda needed to prepare it is not expensive; thus making a lot of people to easily prepare it. These three soups are mostly consumed by Liberians because they are not expensive on the local market, and can be easily prepared.

3.2 Classification of Traditional Liberian Soups



The thick soups are the ones that look heavy during preparations and can keep the stomach full for longer hours after eating them. The thin soups are the ones that appear light during preparations with little or more water remaining in them after cooking and do not keep the stomach full for longer hours after eating them. The special soup is the one that can be found at many occasions across the country as well as internationally, most especially during Liberia's Independence Day celebration, Christmas Day and New Year Day.

3.3 Importance of Traditional Liberian Soups

It is essential to state the overall importance of Traditional Liberian soups on the human body. Here are to us some of the importance of consuming soups [10]:

1. Soup is comforting – A warm pot of soup can soothe the taste buds and the soul. For example, a hot pepper soup with bony fish can be unique to your taste.
2. Soup is good for health – Soup helps to nourish the human body because of the good nutrients found therein. Eating a bowl of soup with rice or fufu is an easy way to fill up on the recommended servings of vegetables for the day. For example, eating boiled beans without pounding them is good for the wellness of the body.
3. Soup can help one lose weight – Warm soup can make you feel full so you aren't tempted to overeat. Carrot pepper with enough onions and garlic is a good example of this.
4. Soup is affordable – Soup is a great choice for a tight grocery budget. For a limited amount of money, you can buy soup stock, some vegetables, a little bit of meat, dried or fresh fish, and cassava leaf/potato greens. For

instance, potato greens and cassava leaf are two less expensive soups among other soups with affordable prices.

5. Soup can make you feel better–Soup contains important vitamins and antioxidants that can hasten healing process. For instance, drinking a nice fever leaf soup with cold water fish and crab fish makes you feel better, even in time of ailment.

3.4 Conclusion

Knowing the frequency of the consumption of traditional Liberian soups is a better way to help all Liberians to know which soups are mostly consumed by the population on a monthly basis and their importance thereof to the human body. It gives Liberians the insights on the various soups they eat, and by extension the motivation needed to continue eating their traditional soups that have nutrients that are good for their wellness. This research is serving as a baseline study to inform the decisions of major stakeholders when developing a national food guide in the future. In furtherance, it gives rise to future studies on how vegetables in Liberia can be properly prepared to provide the rightful nutrients needed to meet the unmet health needs of the entire population.

Informed Consent

Respondents read with interest the statement of consent at the top of every survey tool. After reading, they willingly decided to form part of this research activity.

Funding

No external funding was received. The researchers used their own limited resources.

Competing Interests

The authors declared no competing interests.

Author Contributions

Pewee did the data analysis, research methodology and classification of traditional Liberian soups. Helena did the rationale and background of the study and referencing. Geetah did the importance of Traditional Liberian Soups. All authors contributed to the abstract and final version of the manuscript.

References

- 1) Aggarwal, R. and Ranganathan, P. (2019). Study Designs: Part 2-Descriptive Studies.

Perspective in Clinical Research; 10(1): 34-36. Doi:10.4103/PICR_154_18

- 2) Borgstede, M. and Scholz, M. (2021). Quantitative and Qualitative Approaches to Generalization and Replication-A Representationalist View. *Frontiers Psychology*; <https://doi.org/10.3389/fpsyg.2021.605191>.
- 3) <https://aissmschmct.in/wp-content/uploads/2021/05/Chapter-2-Soups.pdf>
- 4) <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=LR>
- 5) https://www.streetdirectory.com/food_editorials/cooking/soup_recipes/value_of_soup.html
- 6) Philip, A. (2020). How Soup became one of the most popular food items. Retrieved from <https://www.onmanorama.com/food/features/2020/06/24/soup-popular-dish-history-origin.html>
- 7) R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.0) [Computer software]. Retrieved from <https://cran.r-project.org>. (R packages retrieved from MRAN snapshot 2021-04-01).
- 8) Rumble, V.R. (2009). *Soup through the Ages: A Culinary History with Period Recipes*; McFarland and Company Inc, North Carolina and London.
- 9) Sauro, J. (2018). 4 Classes of Survey Questions. Retrieved from <https://measuringu.com/survey-question-classes/>
- 10) Spoonful of Comfort (2017). The Importance of Soup in our Diet. Retrieved from <https://www.spoonfulofcomfort.com/blogs/comfort-and-care/the-importance-of-soup-in-our-diet>.
- 11) The jamovi project (2021). *jamovi*. (Version 2.2) [Computer Software]. Retrieved from <https://www.jamovi.org>.
- 12) [Uis.unesco.org/en/country/l](https://uis.unesco.org/en/country/l)