

# Utilization of Natural Remedies to Cure Diseases

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## Abstract

The use of natural remedies is internationally reported in the management, treatment and preventing of diseases. The aim of this study was to establish the level of utilization of natural remedies to cure various diseases in a cosmopolitan town.

This was a cross-sectional study involving three hundred and eighty-two people wherein a self-administered closed-ended questionnaire. Data was analysed using STATA version 13.1 in which negative binomial regression models to explore the associations with a 95% (CI).

The findings show that the most utilized natural remedies were garlic (77.1%), ginger (77.5%), honey (86.7%), onion (69.9%), cabbage (57.1%), turmeric (57.9%) and wheatgrass (81.7%). This usage was influenced by the level of knowledge and attitude. Utilization was difference between those with moderate knowledge (IRR = 1.47; 95% CI: 1.26 – 1.71) and high knowledge (IRR = 2.16; 95% CI: 1.83 – 2.55), and between those who said they will keep using natural remedies (IRR = 1.20; 95% CI: 0.98 – 1.48,  $p < 0.10$ ) and those that believed natural remedies can be used to cure (IRR = 1.33; 95% CI: 1.14 – 1.57).

In conclusion, there was a moderate level of usage of natural remedies which was mainly influenced by the level of knowledge and attitude towards natural remedies. It is recommended to have more studies on the effects experienced while using natural remedies.

**Key Words:** Natural Remedies, Diseases, Knowledge, Utilisation, Attitude

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## I. Introduction

Many people do suffer from preventable and curable diseases of which natural remedies within their reach can help could they know the medicinal value of these natural remedies. Both medicinal foods and herbal medicines contain fibre, phytochemicals, antioxidants and other healing properties which not only can treat human diseases but also can prevent diseases. It is interesting to learn that healing foods and medicinal herbs are well utilized globally to boost immunity for HIV/AIDS patients (Nagata, et al., 2011). In Rural Rakai, Uganda, there is customary herbal utilization associated with Liver Fibrosis (Auerbach, et al., 2012).

According to Hamidpour, R. Hamidpour, S. and Shahlari, (2015), Cinnamon is utilized worldwide for cancer deterrence and healing. It is also used for other diseases like gastro duodenal ulcers, and even Alzheimer's illness prevention and management. The majority of the utilised therapeutic foods and herbs have undergone scientific and laboratory investigations by numerous research groups and have found a place in modern medicine (Eteraf & Najafi, 2013).

According to Meragiaw, Asfaw, and Argaw (2016), up to 80% of the populations in Ethiopia utilize natural remedies for main health care. According to (Kitonde, Fidahusein, Lukhoba, and Jumba, (2013), medicinal herbs with anti-microbial activities are used in treating diseases in various regions of Kenya.

In Kenya, curative foods and therapeutic herbs are well utilized by several communities for treatment and disease prevention for those who know their medicinal value (Chemweno, 2015).

Ginger is another well utilized herb globally to prevent and fight cancers. Good for sore throats, colds, coughs, chronic bronchitis, dyspepsia, gas, cholera, gout, and nausea. (Khodaie and Sadeghpour, 2015).

A number of studies have been done in Kenya and confirmed that many people are turning to natural remedies for their disease conditions some people use them alongside conventional medicines (Njeru, Obonyo, Nyambati and Ngare 2015; Chamweno, 2015).

## II. Methods

### Research Design

This was a cross-sectional research study what was population based study carried out in Narok town in Kenya.

### Sample Size

Its residents are about 40,000 and RAOSOFT sample size calculator was used with a 5% margin of error, 95% confidence level and a response distribution of 50% since the prevalence of utilization of natural remedies is unknown. After the calculation, 382 sample size was determined.

### Sampling technique

Purposive sampling technique was used in the selection of study participants.

### Research Instruments

A self-administered questionnaire with closed-ended questions was used to collect data.

### Validity & Reliability

A pilot study was done to test the validity and reliability of the data collection tool in which 38 persons from another town were studied. Reliability was measured by use of a reliability coefficient (Cronbach's Alpha), which was 0.75 in all the key sections.

### Ethical approval

The proposal was ethically approved by the UEAB ethics board and a research permit was also sought and granted by the NACOSTI besides permission was sought and granted from the County Commissioner of Narok County, and the Ministry of Education, Narok County.

### Statistical Treatment of Data

The collected data was analysed using STATA version 13.1. After data were cleaned and prepared for analyses, it was analysed in two phases – that is, the descriptive statistics and the inferential statistics. In the descriptive phase, data were presented in the form of numbers and percentages on knowledge, attitude and utilization of natural remedies. Further, differences between different, categories of variables used in this study were tested using Pearson's Chi-Square test. All the indicators of the utilization of natural remedies were combined into one dependent count variable, and the distribution was determined before selection of the analytical technique.

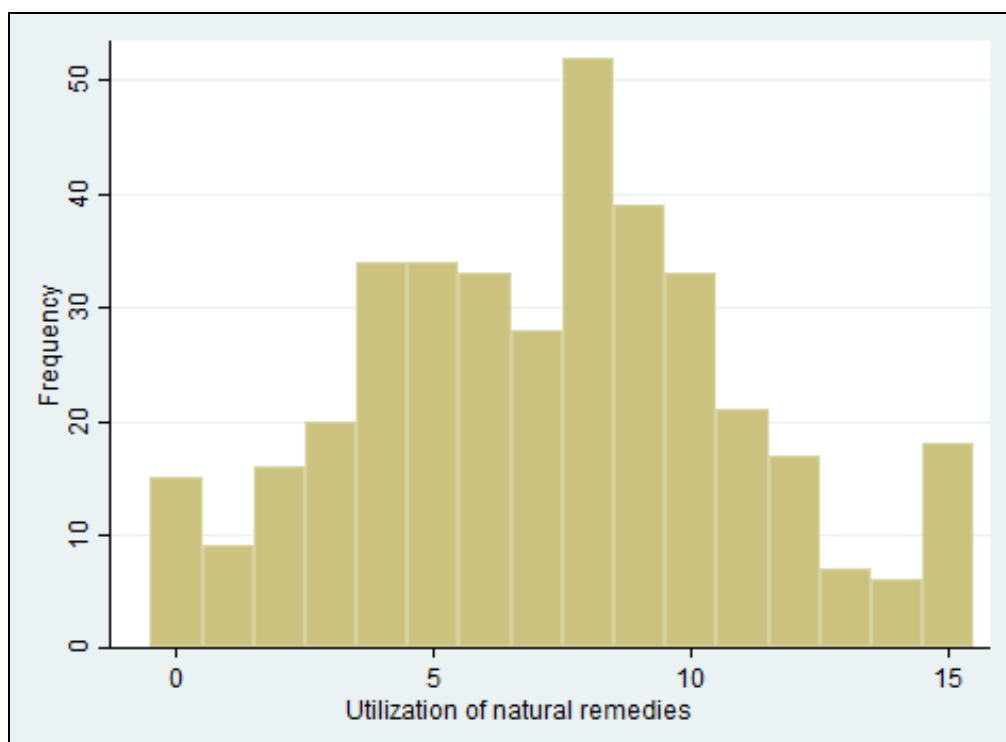


Figure 1: Showing Utilization of Natural Remedies

Figure 1 presents the distribution of the dependent variable with the count data range being between 0 to 15. While the indicator of knowledge was also combined and grouped into three categories as low knowledge ( $\leq 5$  remedies), moderate knowledge (6 – 10 remedies) and high knowledge (11 – 15 remedies).

Figure 1: The distribution of the dependent variable – utilization of natural remedies. In the second phase of the analyses, negative binomial regression models were developed and analysed because of the over-dispersion of the dependent variable. The unadjusted models were analysed before adjusting for all the variables including the potential confounders (i.e., socio-demographic factors, socioeconomic factors and lifestyle factors). The results were presented in the form of tables. All the analyses were performed using STATA version 13.1.

### III. Findings

#### Knowledge on Natural Remedies

Table 1 presents the knowledge of several natural remedies and utilization. More than a half of the participants knew garlic (81.9%), ginger (85.1%), honey (96.6%), rosemary (58.6%), onion (86.4%), cabbages (78.3%), aloe (89.8%) and blackjack (63.1%) as natural remedies, yet utilization slightly reduced among them.

Nevertheless, the majority of the participants indicated that they had used the following natural remedies: garlic (75.1%), ginger (77.5%), honey (86.7%), onion (69.9%), cabbage (57.1%), turmeric (57.9%) and wheat (81.7%). The highest rate of reduction in the utilization was in the aloe and blackjack that many participants (i.e. 89.8% and 63.1%, respectively) had indicated that they know them as natural remedies but only 33.3% and 22.5% utilized them, respectively. The fleabane had the lowest rate of utilization at 9.7%. On the contrary, only 44.2% indicated that they know wheat grass juice as a natural remedy, but 81.7% had utilized it.

#### 1 Attitude Towards Utilization of Natural Remedies

Table 2 presents the attitude of participants towards use natural remedies and the diseases they have indicated are curable using the natural remedies. Over 75% of the respondents indicated that natural remedies are safe and will keep using in the future. They indicated that they can also encourage others to use because the remedies are affordable and can be used to cure and prevent infectious diseases.

**Table 1. Descriptive statistics of knowledge and utilization of natural remedies, n = 382**

		Knowledge on natural remedies		Utilization of natural remedies	
		No, n (%)	Yes, n (%)	No, n (%)	Yes, n (%)
<b>Natural remedies</b>					
1.	Garlic	69 (18.1)	313 (81.9)	95 (24.9)	287 (75.1)
2.	Ginger	57 (14.9)	325 (85.1)	86 (22.5)	296 (77.5)
3.	Honey	13 (3.4)	369 (96.6)	51 (13.4)	331 (86.7)
4.	Rosemary	158 (41.4)	224 (58.6)	192 (50.3)	190 (49.7)
5.	Onion	52 (13.6)	330 (86.4)	115 (30.1)	267 (69.9)
6.	Cabbage	83 (21.7)	299 (78.3)	164 (42.9)	218 (57.1)
7.	Turmeric	227 (59.4)	155 (40.6)	161 (42.2)	221 (57.9)
8.	Aloe	39 (10.2)	343 (89.8)	255 (66.8)	127 (33.3)
9.	Wheat grass	213(55.8)	169 (44.2)	70 (18.3)	312 (81.7)
10.	Cayenne	224 (58.6)	158 (41.4)	276 (72.3)	106 (27.8)
11.	Cloves	243 (63.6)	139 (36.4)	260 (68.1)	122 (31.9)
12.	Moringa	271 (70.9)	111 (29.1)	300 (78.5)	82 (21.5)
13.	Blackjack	141 (36.9)	241 (63.1)	296 (77.5)	86 (22.5)
14.	Fleabane	332 (86.9)	50 (13.1)	345 (90.3)	37 (9.7)
15.	Other	330 (86.4)	52 (13.6)	331 (86.7)	51 (13.4)

**Table 2: Descriptive statistics of the attitude towards use of natural remedies and the infectious diseases perceive to be curable using natural remedies, n = 382**

Indicators	No, n (%)	Yes, n (%)
<b>Attitude towards use of natural remedies</b>		
Safe to use	91 (23.8)	291 (76.2)
Will keep using in future	30 (7.9)	352 (92.2)
Encourages others to use	15 (3.9)	367 (96.1)
Cheaper and affordable	31 (8.1)	351 (91.9)

Indicators	No, n (%)	Yes, n (%)
Can cure infectious diseases	54 (14.1)	328 (85.9)
Can prevent infectious diseases	52 (13.6)	330 (86.39)

Utilization of natural remedies by different characteristics are presented in Table 3. Seventy-five percent of those who were considered to have high knowledge, utilized more than 8 natural remedies. While, 40.9% of participants who considered them safe utilized many natural remedies. Also, 40.2% of the respondents who believed that natural remedies can cure infectious disease used several natural remedies.

**Table 3. Utilization of natural remedies by knowledge, attitude and different characteristics in Narok County, n = 382**

Variables	Total n	Utilized more than half of the natural remedies, n (%)		P-value
		No ( $\leq 8$ items) n (%) = 241 (63.1)	Yes ( $\geq 9$ items) n (%) = 141 (36.9)	
<b>Knowledge of remedies</b>				< 0.001
Low ( $\leq 5$ remedies)	57	51 (89.5)	6 (10.5)	
Moderate (6 – 10 remedies)	227	167 (73.6)	60 (26.4)	
High (11 – 15 remedies)	98	23 (23.5)	75 (75.3)	
<b>Natural remedies are safe</b>				0.004
No	91	69 (75.8)	22 (24.2)	
Yes	291	172 (59.1)	119 (40.9)	
<b>Will keep using in future</b>				0.108
No	30	23 (76.7)	7 (23.3)	
Yes	352	218 (61.9)	134 (38.1)	
<b>Encourage others to use</b>				0.166
No	15	12 (80.0)	3 (20.0)	
Yes	367	229 (62.4)	138 (37.6)	
<b>Cheaper and affordable</b>				0.575
No	31	21 (67.7)	10 (32.3)	
Yes	351	220 (62.7)	131 (37.3)	
<b>Cures infectious diseases</b>				< 0.001
No	54	45 (83.3)	9 (16.7)	
Yes	328	196 (59.8)	132 (40.2)	
<b>Prevent infectious diseases</b>				<b>0.108</b>
No	52	38 (73.1)	14 (26.9)	
Yes	330	203 (61.5)	127 (38.5)	
Others	138	75 (54.4)	63 (45.6)	

## 2 Relationship Between Knowledge, Attitude and Utilization of Natural Remedies

Table 4 presents the IRRs and the 95% CIs of the relationship between knowledge, attitude and utilization of natural remedies. The results indicate that those who had moderate and high knowledge of several natural remedies were 1.55 and 2.40 times at a higher rate of utilization of natural remedies than those who had low knowledge of the natural remedies, before adjusting for all the potential confounders. And, after adjusting for all the potential confounders, those who had moderate knowledge (IRR = 1.47; 95% CI: 1.26 – 1.71) and high knowledge (IRR = 2.16; 95% CI: 1.83 – 2.55) were still more likely to utilize natural remedies than those with low knowledge.

On attitude towards use of natural remedies, only those who perceived that the natural remedies were safe to use were at a higher rate of utilization before and after adjustment at 22% ( $p < 0.01$ ) and 10% ( $p < 0.10$ ), respectively. However, before adjusting for the potential confounders, those who indicated that they will keep using the remedies in the future (IRR = 1.20; 95% CI: 0.98 – 1.48,  $p < 0.10$ ) and believed that the natural remedies can be used to cure (IRR = 1.33; 95% CI: 1.14 – 1.57).

**Table 4. The unadjusted and adjusted negative binomial regression analysis of the utilization of natural remedies in Narok County, n = 382**

Variables	Utilization of natural remedies, IRR (95% CI)	
	Crude model	Adjusted model
<b>Knowledge of remedies</b>		
Low ( $\leq 5$ remedies)	1	1
Moderate (6 – 10 remedies)	1.55 (1.33, 1.80)****	1.47 (1.26, 1.71)****
High (11 – 15 remedies)	2.40 (2.05, 2.82)****	2.16 (1.83, 2.55)****
<b>Attitude indicators (ref: No)</b>		
Safe to use	1.22 (1.07, 1.38)***	1.10 (0.98, 1.23)*
Will keep using in future	1.20 (0.98, 1.48)*	1.03 (0.85, 1.24)
Encourage others to use	1.17 (0.87, 1.56)	0.95 (0.73, 1.24)

Variables	Utilization of natural remedies, IRR (95% CI)	
	Crude model	Adjusted model
Cheaper and affordable	1.06 (0.87, 1.30)	1.05 (0.89, 1.24)
Cures infectious diseases	1.33 (1.14, 1.57)****	1.13 (0.97, 1.33)
Prevents infectious diseases	1.22 (1.04, 1.44)**	0.98 (0.85, 1.14)

\*  $p \leq 0.10$ ; \*\*  $p \leq 0.05$ ; \*\*\*  $p \leq 0.01$ ; \*\*\*\*  $p \leq 0.001$

#### IV. Discussion

The study finding revealed that those who had moderate and high knowledge were still more likely to utilize natural remedies than those with low knowledge. Also, the knowledge of some of the natural remedies (garlic, ginger, honey, onion, cabbage, turmeric and wheat) was evident among participants. But, out of the 15 natural remedies in this study 8 were not well known to the majority of the participants. However, the attitude towards use of natural remedies to cure infectious diseases was positive amongst the majority of the participants. This was measured in terms of safety, willingness to keep using in future, encouraging others to use, cost implication, and can be used to cure and prevent infectious diseases.

The study reports that majority of the participants indicated that they have utilised the following natural remedies to prevent and cure certain diseases, including infectious diseases garlic 77.1%, ginger 77.5%, honey 86.7%, onion 69.9%, cabbage 57.1%, turmeric 57.9% and wheatgrass 81.7%. This supports the idea that when people have enough knowledge on healing foods and herbal medicine, they are influenced to use them more often as used also in north-Western Ethiopia (Meragiaw, Asfaw and Argaw, 2016).

The highest rate of reduction in utilization was in the aloe and blackjack in that many participants at 89.8% knew aloe but only 33.3% indicated that they utilized it. on blackjack any as at 63.1% knew it as a natural remedy only 22.5% indicated that they utilized it as a natural remedy.

The fleabane had the lowest rate of utilization at 97% on the contrary only 42.2% indicated that they knew wheatgrass juice as a natural remedy yet 81.7% indicated that they had utilized it as a natural remedy.

Seventy-five percent of those who were considered to have high knowledge utilized more than eight natural remedies while 40.9% of the participants who considered them safe utilized many natural remedies. Also, 40.2% of the respondents who believed that natural remedies can cure infectious diseases used several natural remedies.

The natural remedies under investigation in the study have been utilised elsewhere as follows, honey as a antimicrobial activity and is utilised globally (Gunes, et al 2017) aloe is used in treatment Balan et al 2014 garlic is utilised globally for various ointment (Sun, et al., 2016).

On attitude towards utilization of natural remedies to cure infectious diseases over 75% of the respondents indicated that natural remedies are safe to use and will keep using them in future. They indicated also that they can also encourage others to use them because natural remedies are affordable and can be used to prevent and cure infectious diseases.

The results were not expected because of the way the percentages on knowledge and utilization on these natural remedies were fluctuating in that high percentage of the participants indicated that they knew certain natural remedies but on utilization the percentage was lower.

#### V. Conclusion

In conclusion, there is moderate utilization of natural remedies which is influenced by the level of knowledge and attitude towards the natural remedies. Therefore, there is need for extensive knowledge provision on the medicinal values of the various natural remedies in the treatment and prevention of various diseases and ailments.

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