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2nd GAAE Conference

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Ghana's Agriculture, Food security and Job creation

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Consumers' Familiarity and Use of Natural Health Products

Author (s)

Jacqueline Baidoo, Kwasi Ohene-Yankyera (PHD) and Victor Owusu (PHD)

Department of Agriculture Economics, Agribusiness and Extension- KNUST, Kumasi-Ghana

Abstract

Many consumers are familiar with herbs but are consumers familiar with products produced out of herbs? Even though WHO (2001) states that in Africa, approximately 80% of the population takes some form of herbal remedies; the type of herbal product used for the herbal remedy is unknown. Investors in the herbal industry are aware of the industry's lucrativeness but the target market and product type to concentrate on become a problem. It is confusing how a lucrative business attracts less investors. It would be interesting to investigate into consumers' familiarity and use of natural health products since it has the potential of creating jobs in the agribusiness sector.

Kumasi and Accra metropolitan were the target area because they are representative of Ghana due to high migration of people from the various regions to these metropolitans. The two-stage sampling technique was used with a total sample size of three hundred and eighty-five (385).

More than twice of consumers are familiar and have used herbal medicine than herbal food supplement. For herbal medicine, herbal mixture and herbal cream is widely used than herbal capsules. The researcher recommends that investors and entrepreneurs should focus more on herbal medicine than herbal food supplement since many consumers are familiar and have used herbal medicine. Lastly, the herbal industry should target the older generation rather than the younger generation

Key words: Familiarity, Herbal Food Supplement, Herbal Medicine, Natural Health Products,



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Introduction

In Africa, approximately 80% of the population takes some form of herbal remedy (WHO 2001). Natural health product is perceived to be more effective in preventing/treating diseases than western medicine and without side effects. Many people use products containing herbs because of claims on efficacy or effectiveness in preventing/treating diseases and consumers' preference of natural remedies (Ekor, 2014).

Even though natural health products are beneficial, investors and entrepreneurs have not made much investment in the herbal industry. This might be due to inadequate information on the familiarity and use of natural health products. Consumers are aware that herbs are good as they enhance the health of people. But are people familiar of the various natural health products available? This research would help entrepreneurs to know the kind of natural health products to produce if they want to venture into the herbal industry.

Research Questions

Are people familiar with natural health products?

What natural health products do people use?

Hypothesis

| | | |
|---|---|---|
| Are people familiar with natural health products? | People are familiar with natural health products. | In Africa, approximately 80% of the population takes some form of herbal remedy (WHO 2001). |
|---|---|---|

| | | |
|--|-------------------------------|---|
| What natural health products do consumers use? | Consumers use herbal medicine | 75% of respondents use herbal medicine on a daily basis. (Irshad and Yadav, 2015) |
|--|-------------------------------|---|



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Literature review

Natural health products are mostly made of herbs. Herbs are multiple use plants useful for culinary, cosmetic, industrial, medicinal, landscaping, decorative, and fragrance purposes (Rogers, 1995). Products with herbs usually have a medicinal benefit.

Herbal products are sold as teas, syrups, herbal food supplement, tinctures, mixtures, oils, liquid extracts, and dry extracts (pills or capsules). Tea from herbs can be from either boiled or cold water while syrup is made from concentrated extracts. Oils from herbs are used alone or as part of an ointment or cream. Herbal alcoholic beverages (tinctures) are made from active herbal ingredients dissolved in alcohol. Mixtures are made of active herbal ingredients dissolved in a liquid usually water or glycerol.

Natural health products are herbal medicine and food supplements that are not usually prescribed by doctors (Wikipedia, 2013). They may include vitamins and minerals, herbal remedies, homeopathic medicines, traditional medicine and probiotics. These substances enhance the health of people but are mostly taken without doctor's prescription. For the purpose of this study, natural health products would be registered herbal medicine and herbal food supplement.

Methodology

The study was conducted in the Greater-Accra and Ashanti regions of Ghana. This is because; these regions are representative of the country as a result of high migration of people from the other parts of the country. The target population was households in both Accra and Kumasi Metropolitan.

Adults over the age of 18 years residing in Ghana were interviewed. Kumasi and Accra metropolitan are divided into the 20 sub-metros and each sub-metro is subdivided into communities. One community was randomly selected from each sub-metro. Twenty household samples from houses were drawn from each community making a total sample size of three hundred and eighty five. The sampled household in each community was by systematic random sampling that is, selecting every fifth residential address on a road. This enhanced representative sample where there was no record of list of households currently.



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Structured questionnaire was used as the data collection tool. Questionnaires included closed and open-ended questions. The data was collected within a period of two months.

Result and Discussion

Socio-Economic Characteristics of Respondents

Table 1 shows some basic socio-economic characteristics of the respondents interviewed in this study. Socio-economic variables measured include respondents' age, education and income.

Percentage frequencies of sex, marital status, religion and occupation were also measured.

Two thirds of the respondents were males (66%). Interestingly, more than a third of the respondents were youth (between the ages of 18-29 and 30-44). More than half respondents (53%) were single while almost half were married (47%).

Table 1: Socio-economic characteristics of respondents

| Variable | Category | Frequency | Percentage (%) |
|-----------------------|-------------|-----------|----------------|
| Sex | Male | 252 | 65.7 |
| | Female | 133 | 34.3 |
| Age (years) | 18-29 | 143 | 37.3 |
| | 30-44 | 152 | 39.2 |
| | 44-60 | 64 | 16.7 |
| | >60 | 26 | 6.8 |
| Marital status | Married | 179 | 46.5 |
| | Not married | 206 | 53.5 |
| Religion | Yes | 370 | 96.1 |
| | No | 15 | 3.9 |
| Education (years of 0 | | 6 | 19.4 |



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formal education)

| | | | |
|----------------------|-------------------|-----|------|
| | 1-6 | 29 | 1.3 |
| | 7-9 | 112 | 8.3 |
| | 10-12 | 164 | 29.0 |
| | >12 | 74 | 42.1 |
| Occupation | Student | 15 | 3.8 |
| | Self Employed | 231 | 60 |
| | Formal Employment | 136 | 35.4 |
| | Unemployed | 3 | 0.8 |
| Income (Ghana Cedis) | 100-499 | 125 | 34.4 |
| | 500-999 | 151 | 41.6 |
| | 1000-2999 | 76 | 20.9 |
| | 3000-10000 | 11 | 3 |

Source: field survey (2018)

Those with religious affiliation recorded a high percentage of approximately 96% as against those of no religion with 4%. This might be due to Ghana being located in Africa and thus regarded as a religious country. Almost half (43%) of respondents had completed the senior high school. This means that averagely respondents had formal education. Almost two third (61%) of respondents were self-employed and thus, majority were in the informal sector.

Natural Health Product Use and Purchase Pattern

Figure 1 shows the distribution of respondents according to purchase and use of natural health products. Out of the 385 respondents interviewed, almost four fifth respondents purchased and used herbal medicine as shown.



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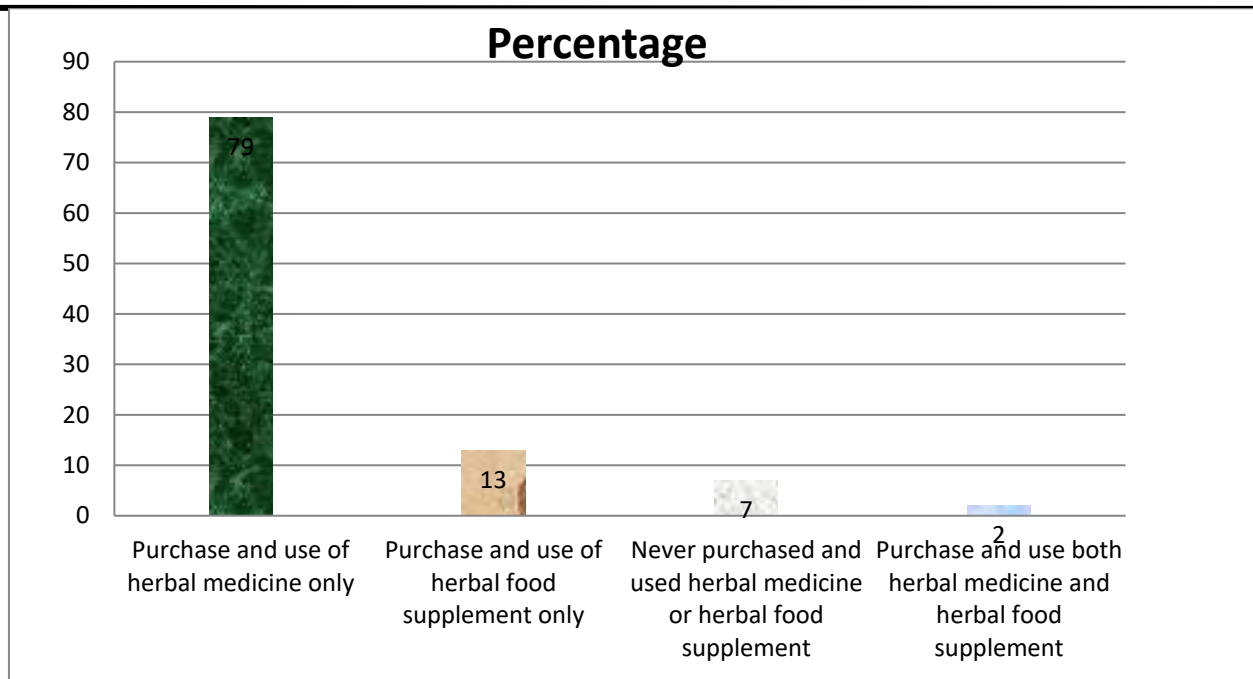


Figure 1. Distribution of respondents according to purchase and use of herbal medicine/herbal food supplement

Source: field survey (2018)

Few of the respondents (13%) purchased and used herbal food supplement. This might be because many people are not aware of herbal food supplement or prefer herbal medicine to herbal food supplement.

The prevalence rate of use of natural health products in Ghana is 93%. This conforms to findings by WHO (2001) that in Africa, approximately 80% of the population takes some form of herbal remedies. The prevalence rate of use of natural health products in Ghana is relatively higher than other African countries.



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Table 2. Association between use of natural health products and respondents' characteristics

| Characteristics | Frequency (%) | Odd ratios (95% CI) | p-value |
|--|---------------|---------------------|---------|
| Sex | | | |
| Male | 230(64) | 1.04(0.33-3.30) | 0.940 |
| Female | 128(36) | Reference | |
| Age (years) | | | |
| 18-29 | 138(39) | 0.09(0.02-0.45) | 0.001 |
| 30-44 | 136(38) | 0.19(0.05-0.8) | |
| 44-60 | 64(18) | 0.02(0.01-0.19) | |
| >60 | 20(6) | Reference | |
| Education (years of formal education) | | | |
| 0 | 6(1) | 4.525E8(>0.001) | 0.414 |
| 1-6 | 25(7) | 1.935E8(>0.001) | |
| 7-9 | 107(30) | 4.415E8(>0.001) | |
| 10-12 | 153(43) | 3.108E8(>0.001) | |
| >12 | 67(19) | Reference | |
| Income (Ghana Cedis) | | | |
| 100-499 | 125(35) | 0.22(0.02-2.41) | 0.156 |
| 500-999 | 147(41) | 0.82(0.11-6.35) | |
| 100-2999 | 75(21) | 1.08(0.13-8.70) | |
| >2999 | 11(3) | Reference | |



People's age was found to be significantly associated with use of natural health products. There were no significant association between the use of natural health products and other independent variables ($p > 0.05$). The younger generation are significantly less likely to use natural health products than the older generation ($p = 0.001$). This might be because the older generation uses natural health products to address sexual issues.

Surprisingly, education was not significantly associated with the use of natural health products. This contradicts finding from Gyasi, Mensah, and Siaw (2015) that the use of herbal medicine decreases with education. The reason might be due to the selection of urban centers as the target area of this study since these centers have many educated people.

Consumers Familiarity on Natural Health Products

Almost half of respondents (44%) had 'heard and used' herbal mixture but few (12%) respondents had "heard and used" herbal tea as shown in Figure 2. The reason for low use of herbal tea might be because majority of respondents had not heard of herbal tea.

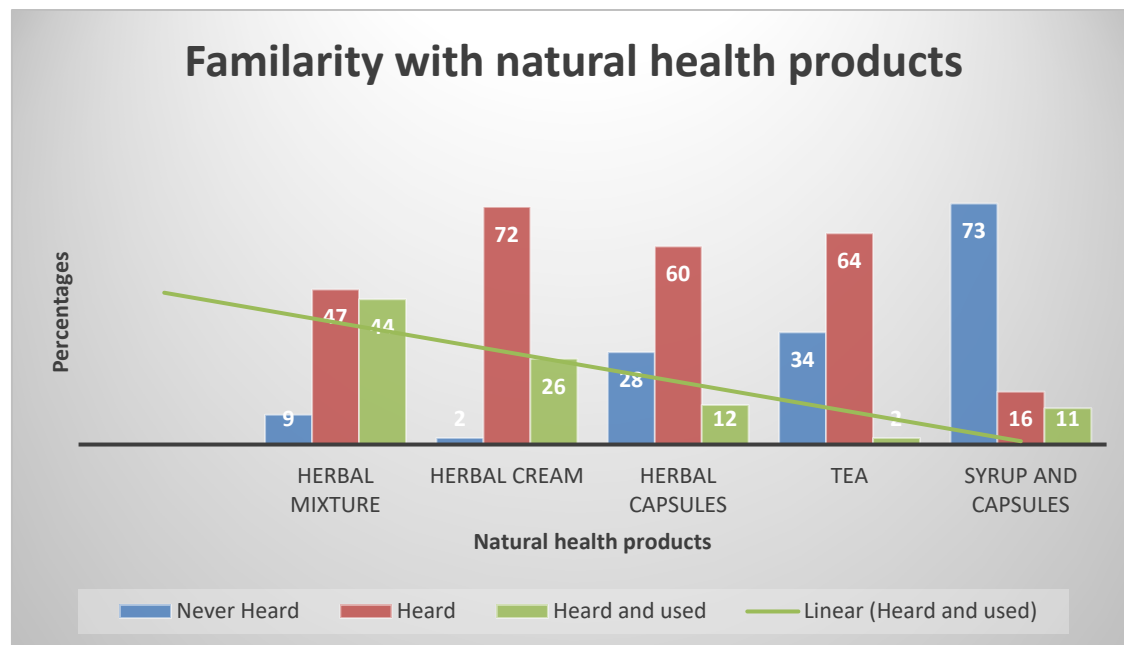


Figure 2. Respondents' familiarity with natural health products

Source: field survey (2018)



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Many people are familiar and have used herbal medicine as compared to herbal food supplement. This confirms the findings that people mostly use natural health products to cure their ailments (Saba, Vassallo, and Shepherd, 2010). Products with disease risk claims are purchased more as compared with general claims (van Kleef, van Trijp and Luning, 2005).

Familiarity of Males and Females with Herbal Medicine (Herbal Mixture, Herbal Cream, and Herbal Capsules) and Herbal Food Supplement (Capsules, Syrup and Tea) by Sex.

Table 3 show respondents' familiarity with Natural health products in relation to sex.

Table 1. Respondents' familiarity with natural health products by sex.

| | | Male (n=252) ^C | | | | Female (n=133) ^C | |
|------------------------|---|------------------------------|-----------------------------|-----------------------------|-----------------------------|--------------------------------|----------------------------|
| | | Never Heard | Heard | Heard and used | Never Heard | Heard | Heard and used |
| Herbal medicine | Herbal mixture | 7% ^b (n=17) | 49% ^b (n=123) | 40% ^b (n=111) | 14% ^b (n=18) | 44% ^b (n=58) | 43% ^b (n=57) |
| | Herbal cream | 2% ^b (n=5) | 73% ^b (n=183) | 25% ^b (n=63) | 2% ^b (n=2) | 70% ^b (n=93) | 29% ^b (n=38) |
| | Herbal capsules | 21% ^a (n=54) | 64% ^a (n=164) | 13% ^a (n=32) | 40% ^a (n=53) | 49% ^a (n=65) | 11% ^a (n=15) |
| Herbal food supplement | Herbal food supplement (capsules and syrup) | 69% ^a (n=174) | 16% ^a (n=40) | 14% ^a (n=36) | 80% ^a (n=106) | 17% ^a (n=22) | 4% ^a (n=5) |
| | Herbal tea | 64% ^b (n=76) | 27% ^b (n=168) | 9% ^b (n=7) | 67% ^b (n=52) | 11% ^b (n=78) | 22% ^b (n=3) |

Note: ^aP<0.05

^bP= not significant

^c Not all participants responded to each question

Source: field survey (2018)

Herbal Medicine



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Herbal Mixture

Table 3 presents the results of herbal mixture in relation to sex. More than 40% of females were both familiar and had used herbal medicine. There was no association between gender and participants' familiarity with herbal medicine ($\chi^2= 6.295$, $df=4$). Interestingly, twice more of females than males were not familiar with herbal medicine. This might be because more males perceive their health status as unsatisfactory and hence tend to seek remedies.

Herbal Cream

Table 3 presents the results of herbal cream in relation to sex. More than three quarters of males and females were familiar with herbal cream. 30% more females than males had used herbal cream. This might be to the preference females give to their skin as compared to their male counterpart. Interestingly, few (2%) males and females were not familiar with herbal cream. The Chi-square test revealed no association between gender and familiarity with herbal cream ($\chi^2=1.072$, $df=4$).

Herbal Capsules

Table 3 presents the results of herbal capsules in relation to sex. 15% more males than females were familiar with herbal capsules. Interestingly, 19% more females than males were not familiar with herbal capsules. This might be because many herbal capsules are used to address sexual issues in men. The chi-square test also revealed an association between gender and familiarity with herbal capsules ($\chi^2=16.388$, $df=4$, $P\leq 0.05$). We thus reject the null hypothesis that there is no association between herbal capsules and sex of respondents.

Herbal Food Supplements

Herbal Food Supplement (Syrup and Capsules)

Table 3 presents the results of herbal food supplement (syrup and capsules) in relation to sex. More than two thirds of males and females were not familiar with herbal food supplement. 1% more males than females were familiar with herbal food supplement. Surprisingly, more females than males had used herbal food supplement. Chi-square test also revealed an association between gender and familiarity with herbal food supplement ($\chi^2=10.649$, $df=4$, $P\leq 0.05$).

Herbal Tea



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Table 3 presents the results of herbal tea in relation to sex. Two thirds of both males and females were not familiar with herbal tea. Interestingly more males than females were familiar with herbal tea. Surprisingly, 16% more females than males had used herbal tea. The chi-square test also revealed no association between gender and familiarity with herbal tea. ($\chi^2=3.806$, $df=4$).

Conclusion

The younger generation are significantly less likely to use natural health products than the older generation ($p=0.001$). This might be because the older generation uses natural health products to address sexual issues.

Consumers are familiar and have used herbal medicine than herbal food supplement. For herbal medicine, herbal mixture and herbal cream is widely used than herbal capsules. More males are familiar and have used herbal capsule than females. More males were familiar and had used herbal food supplement (syrup and capsules) than females.

Familiarity with herbal capsules and herbal syrup and capsules is significantly associated with gender.

Recommendation

1. Investors and Entrepreneur should focus more on herbal medicine than herbal food supplement since many consumers are aware and have used herbal medicine.
2. The herbal industry should target the older generation rather than the younger generation.

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