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Perception and Attitude of Herb Sellers Towards Covid -19 Pandemic – A Pilot Study of FCT and Its Environs

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ABSTRACT

The outbreak of the COVID-19 pandemic came along with a lot of challenges including the absence of precautionary measures towards the prevention of the disease observed in market places around FCT. Also, herbal medicine practitioners became first point of call by locals even in advent of the disease. The perception regarding COVID-19 among herbal medicine sellers in different parts of the F.C.T was studied. A cross-sectional study using semi-structured questionnaire; descriptive and inferential statistics was done. Association between variables using chi square test (x^2) and logistic regression analysis was done (*p*-value ≤0.05). Respondents (87%) were aware of COVID-19. 41% thought the pandemic was an inflated event strengthened by symptoms of seasonal diseases. Respondents (70%) had no herbal drugs to manage COVID-19, 30% had herbs to manage the disease while 41% stated an increase in sales of herbs used to manage symptoms. Precautions were taken by 72% while 44% and 26% practiced handwashing and social distancing respectively. The contribution of wrong belief towards COVID-19 risk precaution measures has been reported. A significant relationship ($x^2 = 9.7$) was observed between awareness of COVID-19 and the belief that it existed ($p<0.05$). There is need to educate the people, especially the herb-sellers on COVID-19 and to also integrate them into public health related programs as they may be the only alternative to locals in advent of disease.

Keywords: COVID-19, Perception, Herbal medicines, Herb medicines practitioners

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INTRODUCTION

COVID-19 caused by the novel strain of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a scourging and infectious viral disease. Due to the rapidly increasing and contagious nature of the disease, several precautionary measures were put in place to curb the spread of the virus [1].

The infection rate in sub-Saharan Africa and in Nigeria has presented a much difficult situation because of different comorbidities combined with poverty, poor healthcare services and limited access to health facilities and further linked to non-adherence to the infection control recommendations that are focused on the

disease prevention to minimize the burden on the health care system [2,7,10]. These recommendations include frequent hand hygiene with soap and water or use of an alcohol-based sanitizer, use of face masks and quarantine for those who may be exposed, However, some Nigerians do not adhere to these preventive measures. Studies have reported the knowledge of presence of COVID-19 amongst Nigerians and it is anticipated to impact precautionary behavior however, inherent wrong perceptions may contribute to COVID-19 risk aversions measures [3].

Herb sellers are traders of medicinal materials which may be in form of plant/animal parts or in products [9]. Herbal sellers play a useful role in providing qualitative health care at the primary health care level in Nigeria building on a longstanding cultural acceptability in its use with majority of rural populations relying on plant-based traditional medicines for their treatment. [8,16]. The absence of precautionary methods towards the prevention of COVID-19 was observed in the market places. Different perceptions, attitudes and practices have been associated with the COVID-19 pandemic. Hence the aim of this study was to assess the awareness and perception of COVID-19 among herb and herbal medicine products sellers, trading in different parts of the F.C.T Abuja and its immediate environs, determine the possible relationship between perception and the degree to which herb sellers have herbal drugs for the management. An understanding of the perception of people especially herb sellers regarding COVID-19 disease is crucial because perception can possibly lead to engagement in preventive health behavior/action and control towards the spread of COVID-19 and development of recipes towards its management.

METHODOLOGY

Study Design, Respondents and Setting

This study was excerpt from a survey and documentation of herbal medicine products sold in the Federal Capital Territory, Abuja between June and October, 2021. Respondents were of different Gender, age, tribe. Herb sellers in markets, cart/truck pushers, hawkers were studied in the open markets. Major areas in the F.C.T. and its immediate environs were surveyed (Figure 1). Responses were obtained on a voluntary basis and refusal rate was documented.

Sample-size calculation and sampling technique

A cross-sectional study design using a single-stage sampling technique was used to select herb sellers across major markets within and around the FCT. Data were collected using an interviewer administered semi-structured questionnaire on major market days. A sample size calculation was performed using the following formula: $n = Z\alpha^2 p\,(1 - p)/d$. where P is the anticipated prevalence of herb seller's knowledge, d is the desired precision, and z is the appropriate value from the normal distribution for the desired confidence (1.96). Using a 95% confidence level (CI), 5% precision level, and 50% anticipated prevalence of inappropriate knowledge, a sample size of 50 people was considered representative for herb sellers in the FCT.

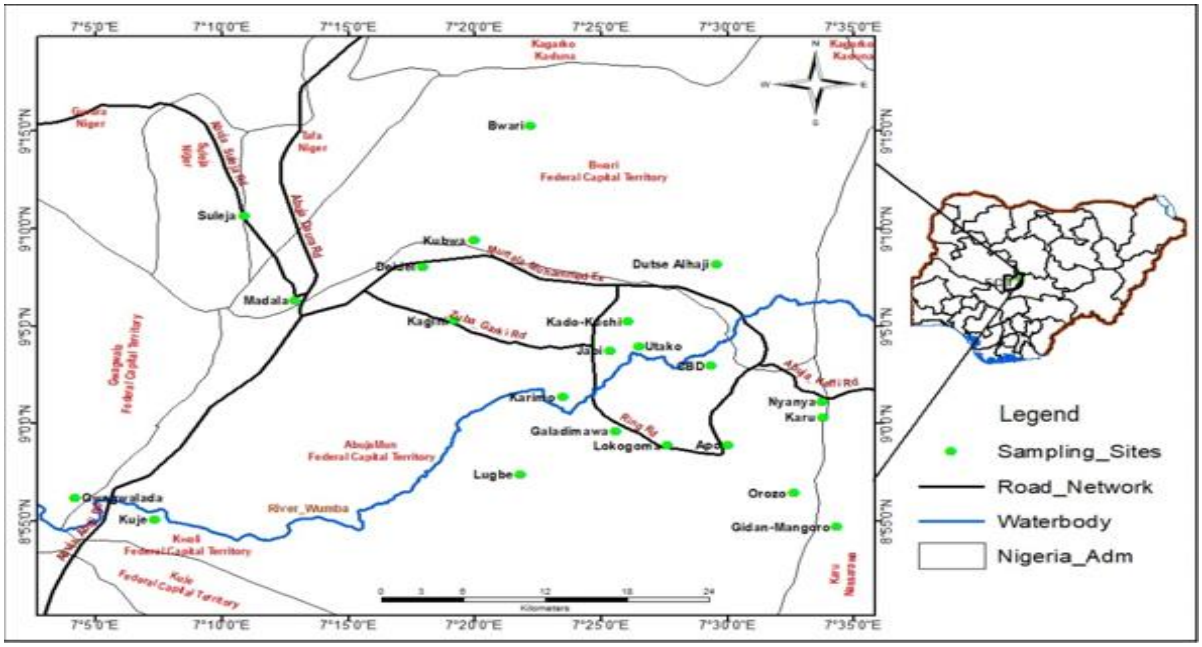

Figure 1: Sampled areas within the FCT Abuja

Questionnaire design, study variables, deployment and data collection

Qualitative content validity was evaluated by a panel of 8 experts, who reviewed the questionnaires Content validity was also evaluated quantitatively wherein content validity index (CVI) for relevancy and clarity were tested for each item. The questionnaire consisted of three categories: (1) Demographic Information on respondents (2) Awareness and perception of COVID-19 (3) Data collection tool. A pilot test was conducted with a minimum of 10 people and feedback was collated.

Statistical analysis

All data were analysed using SPSS© version 23. Descriptive analysis was used for categorical variables. Inferential statistics, cross tabulation was conducted, and association between variables was tested using chi square test (x^2). Logistic regression analysis was used to identify awareness-related/educational level factors that best predicted the perception towards COVID-19 in the study population using odds ratio (OR) values as a measure of association. A *p*-value of 0.05 or less was considered significant.

Ethical Considerations

Ethical approval (FHREC/2021/01/92/09-08-21) was obtained from the Health Research Ethics Committee, Federal Capital territory FCTA. The participation of herb sellers was strictly voluntary and no personal data of the participants was reported. The anonymity of respondents was preserved in the study.

RESULTS

Sampled sections, Response Rate and Sociodemographic data

A total of 50 respondents (92% response rate) were interviewed among herb sellers. Herb sellers (78.3%) were situated in the market while 21.7% were hawkers who went around

with their wares. Female (63%), 89.1% were between the ages of 22-59, 17.4% had no formal education while 71.8% had at least a primary education (Figure 2).

Perception of COVID-19

Majority of the respondents (87%) were aware of COVID-19 i.e., they knew a new disease has been announced to be rampant in town and the possible risk to mortality. Also, they knew how they could contract the disease and what practices to take to prevent the disease. Some respondents (58.7%) believed the disease existed while 41.3% thought the pandemic was an exaggerated event that was strengthened by symptoms of seasonal diseases as they had not seen anyone especially in the market die of any related symptoms and there were no changes in customer patronage (Figure 3). 91.3% stated they have not treated any COVID-19 patients.

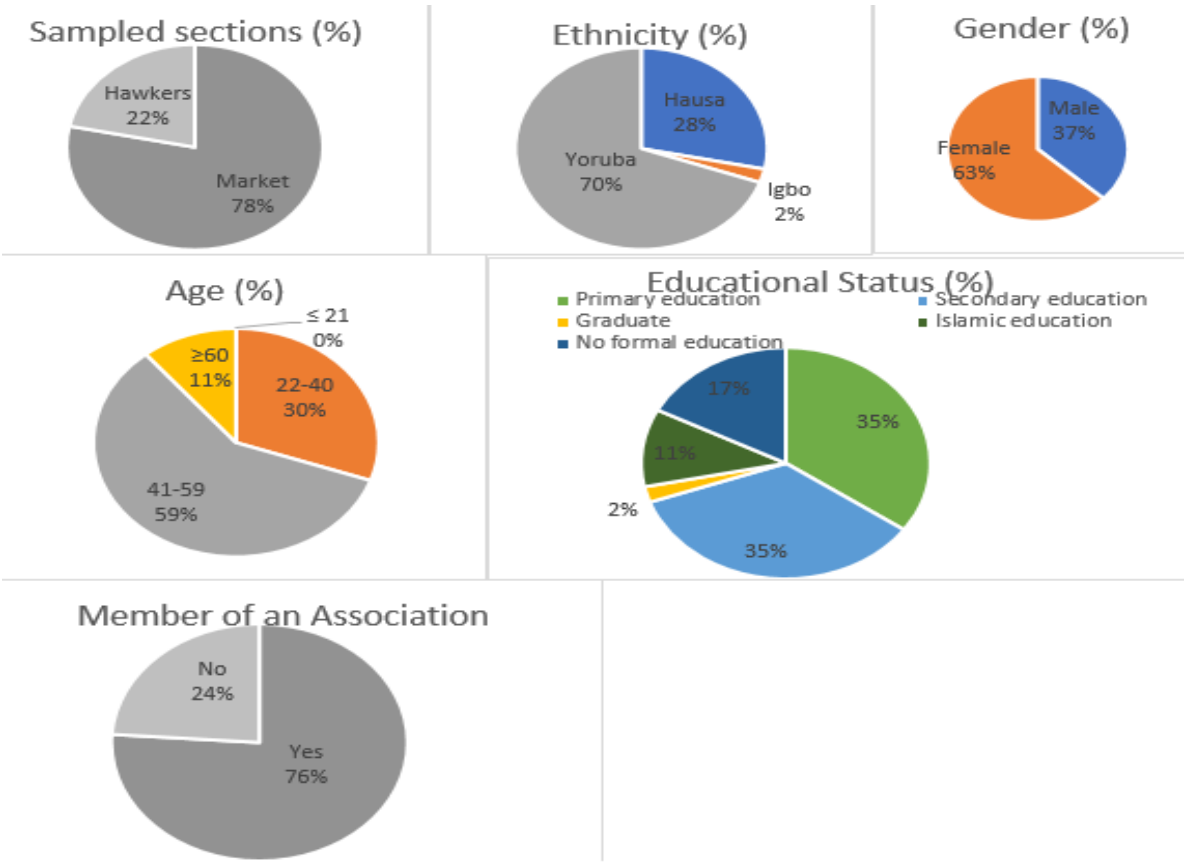

Figure 2: Sociodemographic factors of herb sellers in the FCT Abuja.

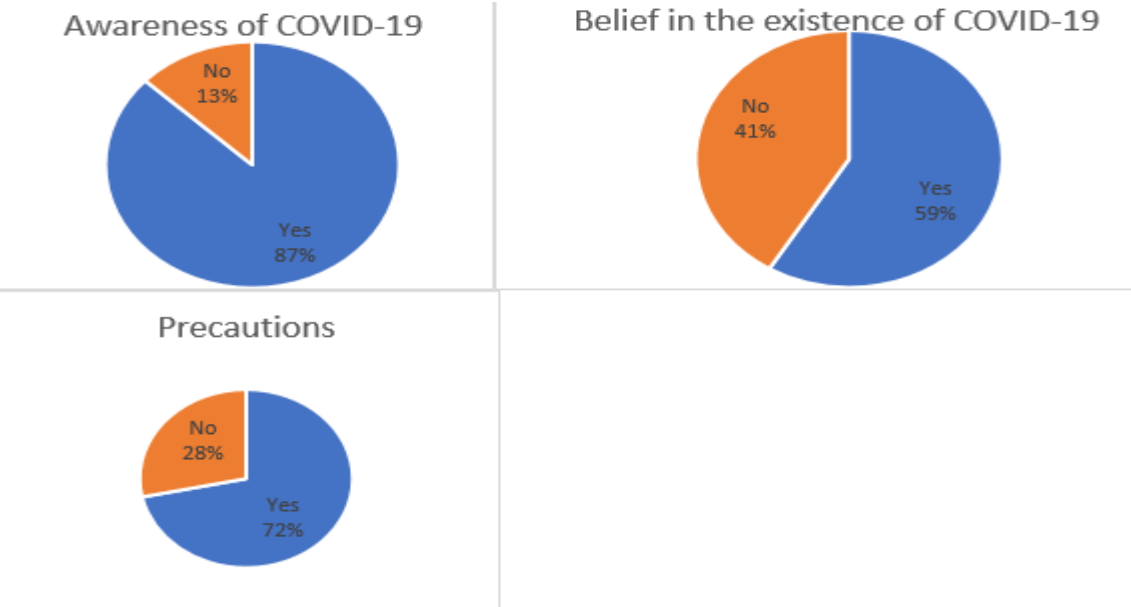

Figure 3: Awareness and Belief in the existence of COVID-19

Other respondents' information on COVID-19

Table 1: Precautions taken by respondents

Precaution method	Frequency	Percent (%)
Mask	30	65.2
Hand Sanitizer	16	34.8
Social distancing	12	26.1
Hand washing	20	43.5
Use of Herbs/others	0	0

Table 2: Herbs used in the management of COVID-19

Increase in sales of herbs used in the management of COVID-19 symptoms		
Response	**Frequency**	**Percent (%)**
Yes	19	41.3
No	13	28.3
Not really	5	10.9
May be	7	15.2
Availability of Herbs/herbal products stocked for the management of COVID-19		
Yes	14	30.4
No	32	69.6

Table 3: Respondent's response to treating patients with COVID-19

Treat patients with COVID-19	Frequency	Percent (%)
Yes	4	8.7
No	42	91.3

DISCUSSION

The study investigated the awareness and perception of COVID-19 amongst herb sellers in the FCT and its environs. Findings show that 71.7% of respondents took precautions against COVID-19 which included use of masks (65.2%), handwashing (43.5%), use of hand sanitizers (34.8%), social distancing (26.1%), use of herbs (0%) (Table 2). Awareness had a significant influence on the use of precautionary measures (x^2 =7.219, p=0.007). The more aware people are on the pandemic and its possible tendencies towards increased mortality rates, the more they are likely to take precautions against contracting the disease. Such significant influence was also reported by Li et al., [3] and Iorfa et al., [5] who stated that knowledge of COVID-19 had a significant influence on precautionary behaviour as observed from their study.

A weak significance was observed between the belief that COVID-19 was real and precautions taken against the disease (x^2 = 3.628, p=0.057) (Figure 2). It is expected that those who really believe the disease was real would take appropriate precautions, however, some respondents in this study (52.2%) did not believe in the existence of the disease but still took precautionary measures. Reports by Rimal [11] and Raza et al [12] stated that knowledge in itself may not always lead to precautionary behaviours until the relationship is mediated by other factors. Findings from previous surveys within Nigeria have highlighted the role of positive risk perception and belief on embracing preventive COVID-19 practices. It is also assumed by the health belief model that the level of precaution taken against COVIID-19 will depend on the degree to which people feel susceptible [13]. Beyond belief, other factors such as fear of the disease could be responsible for precautionary behaviour. There is the possibility of fear of COVID-19 instilled by the mortality rates as observed in other countries and the response of the governments to the disease, response such as the lock down. Fear has been reported to yield healthy but unsustainable behaviour [2, 14, 17].

The study showed a significant relationship between the respondent's awareness and belief in the existence of COVID-19 (x^2 =9.742, p=0.002; r=2.228, p=0.05). It is expected that people who believe the disease exists are also well aware of its existence. However, t a greater percentage of people were aware than the percentage of people who believed. This study showcases some perceptions associated with COVID-19 in the market place. 35% of those who were aware of COVID-19 stated that they didn't believe it was real. This represents the percentage who gave the following reasons such as*: "the symptoms are not peculiar to the disease as they are observed with rainy or cold season, during this season there is increase in*

cough and fever. It is a rich man's disease. So far in the market, no one has come up with the symptoms and no customers have come up with it nor complained of it to me". These misconceptions and individual notions could possibly contribute to the behaviour of the herb sellers towards COVID-19.

As expected, a strong significant relationship between whether the respondent's treated patients with COVID-19 and whether they had herbal medicines for the management of COVID-19 was observed (x^2 =11.180, p=0.001) (Table 2). It is expected that respondents who claim they treated patients with COVID-19 had herbal medicines to manage the disease. Respondents (91.3%) stated that they had never treated patients with COVID-19, 8.7% stated that they had at one time or the other treated patients with COVID-19 and its symptoms however respondents (30.4%) believed they had remedies for COVID -19 though they had not encountered any COVID-19 patients (Table 3).

Findings show that respondents could be aware of the disease and yet have no herbal drugs to manage the disease. It could be said that there was no bias towards non treatment of COVID-19 patients; as whether the herb sellers treated patients or not was not due to whether they believed COVID-19 was real. No significant relationship was observed between the belief in the existence of COVID-19 and whether they treated patients with COVID-19 (x^2 = 0.772, 0.380). 88.9% of those who believed, along with 95.7% of those who did not believe in the existence of COVID-19, stated that they had not managed patients with COVID-19. It would have been expected that awareness of the pandemic and its symptoms should directly impact on the availability of herbal medicines for the management of the disease. However, herb sellers have the knowledge of the use of recipes/herbal medicines for one disease or the other handed over to them from one generation to another. COVID-19 was non-existent until 2 years ago. Thus, herb sellers possibly have no training or capacity yet on the herbal medicine(s)/recipes to be used to directly manage the disease. It is expected that it would take time and consistent management of COVID-19 patients before recipes are developed (based on trial and error) for its management [4,16]. It is noteworthy that 91.3% of respondents stated they have never treated any COVID-19 patients and 69.6% of respondents stated they had no herbal medicines for the management of the disease. Though herb sellers (69.6%) stated that they had no herbal drug to directly combat the disease, 41.3% agreed that there was an increase in the sales of herbal drugs used to manage cold, cough and fever (Table 2). All of which are major symptoms of the disease [4].

Demographic factors such as age and gender had no significant relationship with awareness, belief and the degree to which precaution was taken ($p \leq 0.05$). Iorfa et al [3] observed differently that older people and females had greater tendencies towards taking precautions and suggested that gender and age among other factors moderate perception of risk and thus precautionary behaviour. Respondents (17.4%) had no formal education and 87.5% of these people with no formal education were aware of

COVID-19. 50% of the people with no formal education did not believe the existence of COVID-19. Information on the pandemic was understood by the herb sellers irrespective of their age, gender and educational status. Other sources of information that could improve awareness include media, radio and television, friends and family etc [4]. Awareness and belief were not mediated by membership of association ($x^2 = 0.311$, $p=0.577$). Herb sellers belonged to over eleven (11) different associations which could possibly have different notions or views of COVID-19.

Most surveys regarding COVID-19 have used electronic means for data collection thus yielding results which could have some form of bias. Findings from this physical based community study imply that there is a need to further educate the herb sellers on the danger of contacting the disease and the need for cautionary measures such as the importance of the use of nose masks and handwashing as a means of preventing the spread of COVID-19. Though 65.2% of respondents stated they used nose masks as a precaution, none of the herb sellers were observed to be wearing any masks in the course of attending to customers and during the interview nor did they have hand sanitizers and running taps for the purpose of handwashing. The availability of water and access to good sanitation may have impacted on the frequencies observed. Possible myths, misinformation, misconception and individual views surrounding the nature of COVID-19 must be combatted organised health campaigns in the market and also have precautionary consumables distributed regularly to the herb sellers. More efforts are needed to understand the factors that would lead to increased awareness, increased knowledge of the herbs and recipes to manage the disease and use of precautionary measures in public space.

This study relatively used a limited number of respondents considering the population of traditional medicine practitioners and herb sellers hawking on the streets of the suburban parts of the FCT. There is need to explore the perception of traditional medicine practitioners as a whole and relate with clients in their socioeconomic strata.

Conclusion

Herb sellers in the FCT are aware of COVID-19 with no claim to the knowledge of herbs that can be used to treat the disease in itself. There is a need for enlightenment campaigns targeted at the market places and the integration herb sellers into public health related programs as they may be the only alternative to locals in advent of disease.

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