

Knowledge, attitudes and practices of adult patients seen in ENT consultation facing COVID-19 in Lomé, Togo.

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Abstract

Introduction: The objective of this study was to verify the knowledge, attitudes and practices of patients received in an ENT consultation in Lomé in the face of COVID-19 in order to better guide information, education and communication campaigns. **Methods:** This was a descriptive and analytical cross-sectional study that took place from May 4 to June 5, 2020, in the ENT department of the Sylvanus Olympio University Hospital in Lomé, the country's leading reference hospital center. An anonymous questionnaire with open and closed questions was given during the first 5-10 minutes of a regulatory ENT consultation. Only patients 15 years of age and older who gave their consent were included in the study. The consent of patients aged 15 to 18 was confirmed by their parent or guardian accompanying them. **Results:** A total of 166 patients were enrolled in the study and one interviewee was not aware of the presence of COVID-19 on Togolese territory. Radio and TV programs and newspapers were the main source of information for the respondents (86.14%). Patients' overall knowledge of COVID-19 in terms of symptoms, routes of transmission and barrier measures was rated as good. More than 79% of respondents reported being afraid of COVID-19. The attitudes and practices of those surveyed were diverse and varied. Respondents who thought they had been infected tended to take preventive self-medication ($p = 0.0003$). Low education was associated with fear of COVID-19 ($p = 0.0112$). **Conclusion:** Further awareness-raising and with the right explanations, is still necessary to ensure what has been learned and avoid fear, stigma and bad practice when faced with COVID-19.

KEYWORDS: COVID-19, ENT, attitudes and practices, Togo

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Introduction

Reported for the first time in China on December 31, 2019, infection with the new coronavirus (SARS-CoV-2) was reported first on the African continent on February 15, 2020 in Egypt. Named COVID-19 by WHO on February 11, 2020 [1], this new pandemic reached Togo on March 6, 2020 [2]. The infection is characterized by a variety of symptoms: dry cough, fever, myalgia, asthenia, pharyngeal pain and dyspnea mainly, but also vomiting, diarrhea, abdominal pain and anorexia in some cases. In addition, COVID-19 can cause severe lower respiratory tract infection marked by pneumonia and acute respiratory distress syndrome [3]. Through international media, social networks and scientific publications, information concerning this new respiratory infection has reached the four corners of the world, specifying the routes of transmission and calling for compliance with preventive measures. These measures are social distancing, essentially wearing masks and hand hygiene. As part of the information and reports of suspected cases of COVID-19 infection, several countries have made their numbers available to their populations; in Togo, this number is 111 [2]. Transmission of COVID-19, whether community or nosocomial, occurs by air, oral or by contact of hands and contaminated objects with the ENT and ocular mucous membranes. Given the implication of the ENT sphere in the transmission of the disease, it seemed appropriate to verify the knowledge, attitudes and practices of the patients received in an ENT consultation in Lomé in front of it in order to better orient the campaigns, education and communication. Far from wanting to establish a scale of knowledge levels, it was specifically to question the general knowledge of patients about this new pandemic and to describe their behavior in light of the information received.

Methods

Scheme and study framework

This was a descriptive and analytical cross-sectional study that took place from May 4 to June 5, 2020, in the ENT department of the Sylvanus Olympio University Hospital in Lomé, the country's leading referral center.

Study population

The target population was patients aged at least 15 years who had come for an outpatient visit to the ENT department of the Sylvanus Olympio University Hospital in Lomé. Only patients aged 15 and over who gave their written consent (on the form) were included in the study. The study did not include patients under 15 years of age, patients who did not give their consent and those with a cognitive impairment who did not allow the survey to be conducted. The consent of patients aged 15 to 18 was confirmed by their parent or guardian accompanying them.

Data collection

An anonymous questionnaire in French on a survey sheet was given during the first 5 to 10 minutes of a regulatory ENT consultation, Mondays, Wednesdays and Fridays and consisted of 3 parts: socio-demographic data, knowledge of COVID-19, the attitudes and practices of the respondent during this period of the beginning of the epidemic in our country.

These 3 parts included questions divided as follows:

- Six questions on socio-demographic characteristics: age, sex, nationality, level of education, occupation and number of people living under the same roof with the patient.
- Nine general knowledge questions on COVID-19 based on information provided so far by WHO, scientific literature and the Togolese government. Questions related to the fact of having already heard of the disease, sources of information, the country of first reports of the disease, its presence or not in Togolese territory, the routes of transmission, the prevention measures, the symptoms, lethality or not, the need for information or not.
- Seven to eight questions on the apprehensions and behavior of patients in the face of this new disease. They dealt with the notion of fear, the reaction to a suspected COVID-19 infection, compliance with barrier measures, self-medication, and whether or not to accept a possible screening or a possible vaccination.

The questionnaire was given in the confidence of the consultation room by doctors and medical assistants previously briefed on the items to standardize their understanding and facilitate translations into mother tongues for patients if necessary. The questionnaire included open and closed questions; open ones were marked with an asterisk in the results.

Data analysis

The data collected on a survey form were entered and analyzed using the Epi-Info 7 software. The frequencies of the categorical variables were compared using the Pearson Chi-square test and the test exact Fischer taking into account the conditions of validity and performance of the various tests. The decisions were made with a 5% risk.

Results

Socio-demographic data

A total of 166 patients were enrolled in the study during the month of the survey and all were aware of the existence of the new pandemic. The sex ratio was 0.43. The mean age was 38.93 ± 15.24 years. The extreme ages were 15 and 87. The 35 to 45 age group was the most represented with 42 cases (25.30%). Socio-demographic characteristics are presented in [Table 1](#)

Knowledge of respondents to COVID-19

One interviewee was not aware of the presence of COVID-19 on Togolese territory. Radio / TV broadcasts and newspapers were the most used source of information on COVID-19 by the patients surveyed (86.14%). The top three symptoms most reported by patients as suggestive of COVID-19 were cough, fever and pharyngeal pain. [Table 2](#) presents the knowledge of the patients investigated on the disease.

Attitudes and practices of respondents

One hundred and thirty-two patients (79.52%) admitted to being afraid of the COVID-19 disease and 28 (16.87%) took preventive self-medication for it. This self-medication was essentially made of preparations made from African peach, spices or lemon. A refusal of a possible mass screening or

possible vaccination against COVID-19 was noted in 21.69% of patients. More information about the attitudes and practices of the respondents is presented in [Table 3](#).

The analysis of the attitudes and practices of the respondents ([Table 4](#)) shows, among other things, that the respondents who thought they had been infected tended to take preventive self-medication. Low education has been associated with fear of COVID-19. A tendency of people over 25 and informed respondents outside social networks to accept mass screening for COVID-19 was noted. People on social networks were therefore less likely to accept mass screening.

Discussion

This study allowed us to verify the knowledge, the practices and some attitudes of the patients with whom we interact in our practice in this period of pandemic, considering the risk of transmission by ENT route. The objective of this work was not to determine levels of knowledge in patients. Given the great variability of the data in the scientific literature on this new disease, given the target population and given the final objective which is to improve awareness campaigns in our country, no scale of level of knowledge, even arbitrary, was judged useful. Given the high rates of correct responses, we consider that patients' overall knowledge of COVID-19 is good in terms of symptoms, transmission routes and barrier measures. However, it is important to note the misunderstanding of contact transmission by patients. In fact, contact with a contaminated person or surface is often interpreted as a transcutaneous transmission by patients, which could give rise to stigmatization of people suffering from COVID-19. It is therefore necessary to explain the contact carried to the ENT or ocular mucosa during awareness campaigns. As advised by authors, ENT medical staff, as high-risk professionals, should improve protection awareness [\[4\]](#).

More than 79% of respondents reported being afraid of COVID-19. The attitudes and practices of those surveyed were diverse and varied, although they seemed to reflect the measures decreed by the health authorities in terms of barrier measures and in case of suspected disease. The increase in public concerns and apprehensions about COVID-19 infection has

already been reported, calling for the mental health of populations to be taken into account in awareness campaigns [5]. It should be noted that there was an increasing trend in feelings of fear among respondents with low educational attainment in our series; which could be linked to difficulties in understanding certain information and recognizing misinformation on COVID-19. The intense media coverage of the COVID-19 pandemic means that information spreads faster and more widely than during the SARS epidemic in 2003, the H1N1 flu in 2009, or the MERS-CoV epidemic in 2013-2015, exacerbating public perceptions of personal health, fear, panic and stress [6]. Others fear that SARS-CoV-2 may be due to its novelty and uncertainty about the severity of the current epidemic [7]. In addition, during the COVID-19 epidemic, negative emotions such as fear can lead to somatic symptoms which in turn cause physical and mental discomfort [8]; this could explain the fact that nearly 17% of the respondents in our series thought they were infected at some point. The rapid sharing of scientific information is an effective way to reduce public panic about COVID-19 [9]. Roy et al [5] reported that most educated people are more aware of this infection, of the importance of measures and government initiatives taken to limit its spread.

We noted a significant proportion of preventive self-medication among our respondents. In this period of the beginning of the epidemic where the antiviral therapeutics and the vaccine are at the experimental stage or poorly defined, we are witnessing a reconversion of molecules already used for other pathologies for the management of COVID-19. *Nauclea latifolia*, a plant known and used for centuries in febrile, painful, digestive and metabolic pathologies in sub-Saharan Africa [10, 11], has often been used alone or in combination with other preparations during the self-medication of some investigated. Thus, patients who, for a symptom or other, think they have COVID-19 tend to resort to self-medication (p-value = 0.0003). This attitude could have several explanations: fear of stigma and the risk of isolation, the absence of conventional treatment and disinformation campaigns. Raising awareness by all possible means remains fundamental with knowledge and behaviour checks to avoid misunderstandings and misinformation on the routes of disease transmission, on therapeutic management and on the possible discovery of a vaccine.

Conclusion

This survey of patients seen in an ENT consultation during this period of the onset of the COVID -19 epidemic shows a good level of overall knowledge of the disease in terms of symptoms, routes of transmission and barrier measures. Radio and TV programs and newspapers were the main source of information for the respondents. Their attitudes and practices were diverse and varied, although dominated by the measures decreed by the health authorities. Continued awareness-raising, and above all with the right explanations, is still necessary to guarantee what has been learned and avoid fear, stigma and bad practice. National studies are still needed to assess the levels of knowledge, practices and impact of COVID-19 in the population.

What is known about this topic

- Knowledge surveys of different population groups on COVID-19 generally show an acceptable level testifying to the effectiveness of awareness campaigns.
- The attitudes and practices of populations towards COVID-19 are diverse and varied depending on several factors including the magnitude of the epidemic, media coverage and government measures.

What this study adds

- In addition to the good basic knowledge of patients on COVID-19, this investigation in an environment at high risk of contamination shows misunderstandings on the modes of transmission; which could lead to stigmatization.
- With almost one in two being very afraid of the disease, an increasing trend in the feeling of fear was noted among those with a low level of education.
- This survey on COVID-19, which is one of the first on an essentially secular population in a risk environment, draws attention to self-medication, the possibility of mass screening and vaccination.

Competing interests

The author(s) declare(s) that they have no competing interests

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Ethical considerations

All participants in the present study provided written informed consent (on the form). The consent of patients aged 15 to 18 was confirmed by their parent or guardian accompanying them. An investigation authorization has been obtained from the administrative and health authorities of the Sylvanus Olympio University hospital. The approval number for this study is 0921/2020 / MSHP / CHU-SO / DIR / DRH / SERV.PERS. During the analysis, the confidentiality and anonymity of all participants were preserved. A number was assigned to each interviewee to safeguard the transcripts of the interviews.

Authors' contributions

All of the first three authors participated in data collection and bibliographic research. The data processing was coordinated by the fourth author and the writing of the article was done by the first three authors. The last four authors read and edited the article.

Tables

Table 1: Socio-demographic characteristics of respondents

Table 2: Respondents Knowledge of COVID-19

Table 3: Attitudes and practices of respondents towards COVID-19

Table 4: Analysis of the attitudes and practices of the respondents towards COVID-19

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Table 1: Socio-demographic characteristics of respondents		
	N = 166	Percent (%)
Sex		
Female	116	69.88
Male	50	30.12
Age range (years)		
< 25	35	21.08
25 - <35	33	19.88
35 - <45	42	25.30
45 - <55	28	16.87
55 - <60	11	6.63
≥ 60	17	10.24
Nationality		
Togolese	162	97.59
Other nationalities	4	2.41
School level		
Secondary	63	37.95
University	53	31.93
Primary	29	17.47
Never in school	21	12.65
Profession		
Merchants and equivalent	39	23.49
Pupils / Students	31	18.67
Workers / Employees	29	17.47
Craftsmen	23	13.86
Housewives	13	7.83
Teachers	8	4.82
Health workers	6	3.61
Retired / Unemployed	6	3.61
Senior management	5	3.01
Police officers	5	3.01
Farmers	1	0.60
Number of people living under the same roof with the patient		
< 5	78	46.99
5 - <10	69	41.57
≥ 10	19	11.45

Table 2: Respondents Knowledge of COVID-19		
	N=166	Percent (%)
COVID-19 Information Source		
Radio and TV shows and newspapers	143	86.14
Word of mouth	62	37.35
Social networks	58	34.94
Public awareness	25	15.06
Posters	9	5.42
Personal Internet Research	7	4.22
Doctor or caregiver	2	1.20
Print media	1	0.60
Disease start country *		
China	142	85.54
Italy	3	1.81
Don't know	21	12.65
3 main symptoms of COVID-19 *		
Cough	134	80.72
Fever	130	78.31
Pharyngeal pain	59	35.54
Dyspnea	41	24.70
Headache	35	21.08
Rhinorrhea	16	9.64
Fatigue	9	5.42
Don't know	8	4.82
Barrier measures		
Mask wearing	161	96.99
Hand hygiene	155	93.37
Distancing	126	75.90
Cough in the fold of the elbow / handkerchief	15	9.04
Stay at home	7	4.22
Transmission mode*		
Air or respiratory	113	68.07
Touching a contaminated person or surface	76	45.78
Oral	62	37.35
Don't know	18	10.84
Eye contact	5	3.01
Sexual	1	0.60
Is the disease 100% fatal ?		
No	116	69.88
Yes	46	27.71
Don't know	4	2.41
Need information on this disease ?		
Yes	117	70.48
No	49	29.52
*Open question		

Table 3: Attitudes and practices of respondents towards COVID-19		
	N= 166	Percent (%)
Are you afraid of this disease ?		
Yes I'm afraid	132	79.52
Very afraid	81	48.80
A little scared	51	30.72
No	34	20.48
Have you ever thought you were infected?		
No	138	83.13
Yes	28	16.87
When to use preventive measures		
Everywhere (at home or not)	130	78.31
Out of home only	33	19.88
Only when coming to hospital	2	1.20
Home only	1	0.60
What to do if you suspect this disease ?		
Call 111	128	77.11
Go straight to hospital	24	14.46
Call a health worker	9	5.42
Don't know	4	2.41
Isolation alone	1	0.60
Preventive self-medication ?		
No	138	83.13
Yes	28	16.87
Products used in preventive self-medication *		
African peach (Nauclea latifolia)	11	6.63
Spice preparations	9	5.42
Lemon	6	3.61
Other medicinal plants	3	1.81
Artemisia	3	1.81
Chloroquine	2	1.20
Vitamin C	1	0.60
Favorable for mass screening ?		
Yes	130	78.31
No	36	21.69
Favorable for COVID-19 vaccination ?		
Don't know	94	56.63
No	36	21.69
Yes	36	21.69
*Open question		

Table 4: Analysis of the attitudes and practices of the respondents towards COVID-19

Have you done a preventive self-medication?			
Yes 28 (16.87%)		No 138 (83.13%)	<i>p-value</i>
Have you ever thought you were infected ?			0.0003
Yes (28)	12 (42.86%)	16 (57.14%)	
No (138)	16 (11.59%)	122 (88.41%)	
Are you afraid of this disease?			0.05501
Yes (132)	26 (19.7%)	106 (80.3%)	
No (34)	2 (5.88%)	32 (94.12%)	
Are you afraid of this disease?			
Yes 132 (79.52%)		No 34 (20.48%)	
Sex			0.0460
Female (116)	97 (83.62%)	19 (16.38%)	
Male (50)	35 (70%)	15 (30%)	
Educational level			0.0112
University (53)	36 (67.92%)	17 (32.08%)	
Lower level (113)	96 (84.96%)	17 (15.04%)	
Would you accept being vaccinated?			
Yes 36 (21.69%)		No - Don't know 130 (78.31%)	
Informed by radio broadcasts and newspapers			0.0063
Yes (143)	26 (18.18%)	117 (81.82%)	
No (23)	10 (43.48%)	13 (56.52%)	
Informed by social networks			0.5330
Yes (58)	11 (18.97%)	47 (81.03%)	
No (108)	25 (23.15%)	83 (76.85%)	
Would you accept mass screening ?			
Yes 130 (78.31%)		No 36 (21.69%)	
Age			0.0031
< 25 years (35)	21 (60%)	14 (40%)	
≥ 25 years (131)	109 (83.21%)	22 (16.79%)	
Informed by social networks			0.0322
Yes (58)	40 (68.97%)	18 (31.03%)	
No (108)	90 (83.33%)	18 (16.67%)	