

"KNOWLEDGE OF HEALTH CARE PROVIDERS IN THE KINDU HEALTH ZONE ABOUT THE THREAT OF COVID-19 DISEASE"

ASSANI WAKENGE Bonny^(1,2) *; ROSEBELLA ONYANGO⁽³⁾; CAREENA OTIENO⁽³⁾; KAMANA LELA Grace⁽⁴⁾; MIANI BIKENGE Thomas⁽¹⁾; NKAMBA NKANKOLONGO Hattie⁽⁵⁾, NKAMBA WA NKAMBA Isaac^(6,7), WASONGA MUPENDA Charles⁽⁸⁾, MASANDI MILONDO Alphonse⁽⁹⁾.

1. Provincial Health Division of Maniema, Public Hygiene and Sanitation Office, DR of Congo;
2. Department of Public Health, Faculty of Medicine, University of Kindu, DR of Congo;
3. Great Lakes University of Kisumu, Department of Community Health and Development (GLUK);
4. Higher Institute of Medical Sciences of Kindu, Department of Nutrition and Dietetics;
5. Head of the medical center Thick Drop, DR of Congo
6. Department of surgery, Faculty of Medicine, University of Kindu, DR of Congo;
7. Head of the Medical Imaging Department, Lumbulumbu Hospital Clinic, DR of Congo;
8. Kasongo Higher Institute of Medical Technics, Hospitality Department, DR of Congo
9. Department of Discipline Didactics, Faculty of Pedagogy and Discipline Didactics, National Pedagogical University, Democratic Republic of Congo.

*Corresponding author:

assani.bonny@gmail.com

SUMMARY

Covid-19 threatens human life, endangers livelihoods and the way of life and the way of life of every individual in every society. Speed, scale and equity must be our guiding principles. Guiding principles. Speed, because the explosive nature of the virus means that every day lost in implementing effective response capabilities and response capabilities and behaviors costs lives, breadth, because everyone in society has a role to play in building the capacity needed to control this pandemic; and to control this pandemic; and equity, because everyone is at risk everyone is at risk until the virus is controlled everywhere in the world: collective resources must be directed to where the risks are greatest. COVID-19 is a truly global global crisis: the only way to overcome it is to unite in global solidarity. The overall objective is to assess the level of knowledge of providers at the General Hospital of Reference in Kindu, on the Covid-19 disease. Through a descriptive cross-sectional study of 70 health care providers based on a questionnaire survey the results revealed that 6 out of 10 health care providers surveyed have limited knowledge, about 3 out of 10 respondents have affordable knowledge and only about 1 out of 10 respondents have good knowledge. Based on this result, we conclude that the preparatory work for the prevention and containment of Covid-19 disease in the Kindu health zone is perceived as inadequate by the health care providers.

Keywords: Knowledge - providers - threat - disease - virus - Covid-19

INTRODUCTION

Perhaps the most important finding of the global response to COVID 19 to date is that accurate diagnosis and effective isolation and treatment of all cases of COVID 19, including mild to moderate forms of the disease in a medical or home setting, depending on the context and degree of the disease, is essential for success in slowing transmission and protecting health systems (WHO, 2020).

As transmission of COVID 19 has progressed globally, most countries have focused on the rapid identification, screening and treatment of patients with severe and severe forms of COVID 19, as well as on protecting those most at risk. Fewer have put in place measures for people with mild disease or for contacts of confirmed cases. Countries should do everything in their power to prevent cases from developing into clusters and these clusters from becoming explosive outbreaks. They should build the necessary capacity for testing and diagnosis, isolation, contact tracing and quarantine, and involve everyone in the response (WHO, 2020).

The world is now facing a major health crisis related to the COVID-19 coronavirus outbreak. Declared in China at the end of December 2019, this new coronavirus has already killed more than 52,000 people and affected more than one million officially reported people in 177 countries. On 12 March 2020, given its global scale, the World Health Organization called the situation a pandemic and COVID-19 an "enemy of humanity". (WHO, 2020).

Situation in the world

Apart from China, there are currently 7 main foci of COVID-19 in : South Korea, Italy, Iran, France, Germany, Spain and the USA. Since the beginning of the epidemic, China has recorded a total of almost 82,000 cases, of which 70,420 have been cured (87%). Now all continents are affected and almost all cases are outside China. While on 19 March 2020, China, the first focus of Coronavirus, reported no new locally-derived COVID-19 infections, Europe is the new centre of the epidemic. The latest figures on the pandemic are soaring and alarming: in 24 hours in Italy, almost 500 people have died from the virus, 200 in Spain and 89 in France. In France, at the beginning of the epidemic, the cases detected were only imported from other countries, but since 27 February the disease has spread among national residents. In the space of a few weeks, epidemic outbreaks have multiplied at great speed all over France.

Faced with such a situation, many countries have had to take drastic governmental decisions in order to do everything possible to try to curb the epidemic and avoid the saturation of health infrastructures. Schools, colleges and universities are closed, as are non-essential public places. People are asked to limit their movements and to remain confined to their homes. Limiting contact between people is essential to contain the epidemic and protect those most vulnerable to the virus. No continent is currently spared from the COVID-19 epidemic. Even if Africa is still the continent least affected by the coronavirus, the WHO specifies that we must "prepare for the worst". Some 15 African countries have already decided to close their entire education systems. Restrictions on air travel have been put in place to try to limit imported contamination. Many events, such as gatherings at places of worship, have been banned in Senegal for example (WHO, 2021).

Barrier measures against the Coronavirus.

The Coronavirus is extremely contagious and can be dangerous for vulnerable people. It is now imperative to stop all possible transmission chains in order to delay and control the epidemic. To do this, there are a number of barrier measures that must be scrupulously respected by all:

- ✓ Wash your hands regularly with soapy water or with a hydroalcoholic solution;
- ✓ Coughing and sneezing while covering the mouth and nose with a bent elbow or using a single-use handkerchief;
- ✓ Avoid touching your eyes, nose or mouth;
- ✓ Do not shake hands and avoid hugging;
- ✓ Keep a distance of one metre from people in queues or meetings.
- ✓ Wear a mask when ill.
- ✓ Avoid unnecessary travel and places frequented by many people
- ✓ Give preference to teleworking
- ✓ Avoid close contact with anyone with flu-like symptoms
- ✓ Consult a doctor quickly, calling ahead when you think you have been infected with the Coronavirus to let them know you are coming. This will help them to be prepared (WHO, 2021).

Methodology

Nature of the study

This was a descriptive cross-sectional study of health care providers in the Kindu health zone. A questionnaire survey with different sections was administered to them. The initial questionnaire will be tested before it is finalized.

Framework of the study

The ZS of Kindu is one of the 18 ZS that make up the province of Maniema. It extends over two communes: the commune of Kasuku and the commune of Mikelenge with a surface area of 78 km². The population of the Kindu health zone is urban-rural, estimated at 270,777 inhabitants, with a density of 3,561 inhabitants per km² (annual report 2017), distributed in 11 health areas, each with a functional health centre.

Selection Criteria

1. Inclusion criteria

This study will include health care providers from available hospital and health centre facilities in the Kindu health zone who have agreed to be part of the study.

2. Exclusion criteria

Not included in our study will be providers who refused to be part of our study and those who were absent at the time of data collection.

Sampling

Statistical unit

In order to carry out this study, we targeted the service providers in the few health facilities in the Kindu health zone that will form our statistical unit.

Sample size

The sample size will be defined by the SCHWARTZ formula $N \geq \frac{z_{\alpha}^2 p \cdot q}{d^2}$ SCHWARTZ.D,1960 [26]. with p the proportion of health care providers = 0.035 according to the data of the evaluation of health care service provision 2020-2021 carried out by the Kinshasa School of Public Health [23]; $q=1-p = 1-0.035 =0.965$; $\alpha=0.05$; $z_{\alpha}=1.96$ and $d=0.05$, $n \geq \frac{1,96^2 \cdot 0,22 \cdot 0,78}{0,05^2} = 52$.

Taking into account the non-response factors, we anticipate that 10% of the subjects will be over 52, i.e. 5, hence $n = 57$ of the staff. For convenience, we round the size to 70.

Sampling technique

We used the 3-stage probability sampling technique.

At the first level: We made a random selection of 30% of the health areas (for reasons of limited financial resources), i.e. 4 health areas within the 11 health areas in the Kindu health zone, including the health area in which the general reference hospital is located, which was selected systematically.

At the second level: random selection of 2 health centres out of 4, 10 hospital centres out of 20 located in the 4 health areas drawn at the first level in the Kindu health zone and systematic choice of the general hospital of reference.

At the third level: systematic selection of care providers in health facilities drawn at the second level from the sample frame of care providers and the sampling frame.

RESULTS

This chapter presents the results of our work in two sections: the first section focuses on univariate analysis or the description of the different characteristics of the health care providers surveyed, and the second section is devoted to assessing levels of knowledge of the results obtained.

Table 1. Distribution of respondents according to their knowledge of the signs of Covid-2019 virus disease.

Variables	Terms and conditions	n= 70	%
	Headaches		
	Yes	41	58,6
	No	29	41,4
Intense fatigue	Yes	37	52,9
	No	33	47,1
Fever	Yes	65	92,9
	No	5	7,1
Exhaustion	Yes	6	8,6
	No	64	91,4
Dry cough	Yes	31	44,3
	No	39	55,7
Difficulty breathing	Yes	11	15,7
	No	59	84,3
Loss of speech	Yes	48	68,6

Diarrhoea	No	22	31,4
	Yes	36	51,4
Abdominal pain	No	34	48,6
	Yes	17	24,3
Sore throat	No	53	75,7
	Yes	5	7,1
	No	65	92,9

This table shows that 58.6% of the respondents recognised headaches as a sign of Covid-2019; 52.9% spoke of intense fatigue, fever was recognised as a sign of the disease by 92.8%, Exhaustion 8.6%, Dry cough 44.3%, Difficulty breathing 15.7%; Loss of speech 68.6%, diarrhoea 51.4% Abdominal pain 24.3% and sore throat 7,1.

Table 2. Distribution of respondents according to their assessment of the level of severity of the virus ebola disease.

Variables	Terms and conditions	n= 70	%
Assessment of the level of severity of the Covid-19			
	Never mind	2	2,9
	Grave	30	42,9
	Very serious	38	54,3

From this table, we can see that 54.3% of the respondents reported the level of severity of Covid-19 as very serious.

Table 3. Distribution of respondents according to their knowledge of the modes of transmission of Covid-19 virus

Variables	Terms and conditions	n= 70	%
	mouth or nose		
	Yes	33	47,1
	No	37	52,9
	When an infected person coughs		
	Yes	67	95,7
	No	3	4,3
	sneeze		
	Yes	38	54,3
	No	32	45,7
	speak, sing or breathe deeply		
	Yes	44	62,9
	No	26	37,1
	When inhaling aerosols or droplets containing the virus		
	Yes	25	35,7
	No	45	64,3

Table No. 3, on Knowledge of modes of transmission of Covid-19 virus, tells us that 52.9% of respondents did not recognize mouth or nose as a mode of transmission of Covid-19 virus. With regard to physical contact with the When an infected person coughs of Covid-19 virus patient, 95.7% of respondents answered yes that the body fluids a of Covid-19 virus patient is a mode of transmission of Covid-19 virus. For sneeze, out of 100% of respondents only 54.3% agreed that contact with the person sneezing is a mode of transmission of Covid-19. In addition, for contact with a person who speak, sing or breathe deeply, it should be noted that 62.9% of respondents knew that contact with a person with Covi-19 virus is a mode of transmission of Covi-19 virus. And finally, for inhaling aerosols or droplets containing the virus, the majority, i.e. more than 7 out of 10 people say that When inhaling aerosols or droplets containing the virus a mode of transmission of Corona-19 Virus.

Determining the level of knowledge about Covid-19

The graph below tells us after the compilation of the different knowledge that 6 out of 10 care providers have limited knowledge, about 3 out of 10 respondents have affordable knowledge and only about 1 out of 10 respondents have good knowledge.

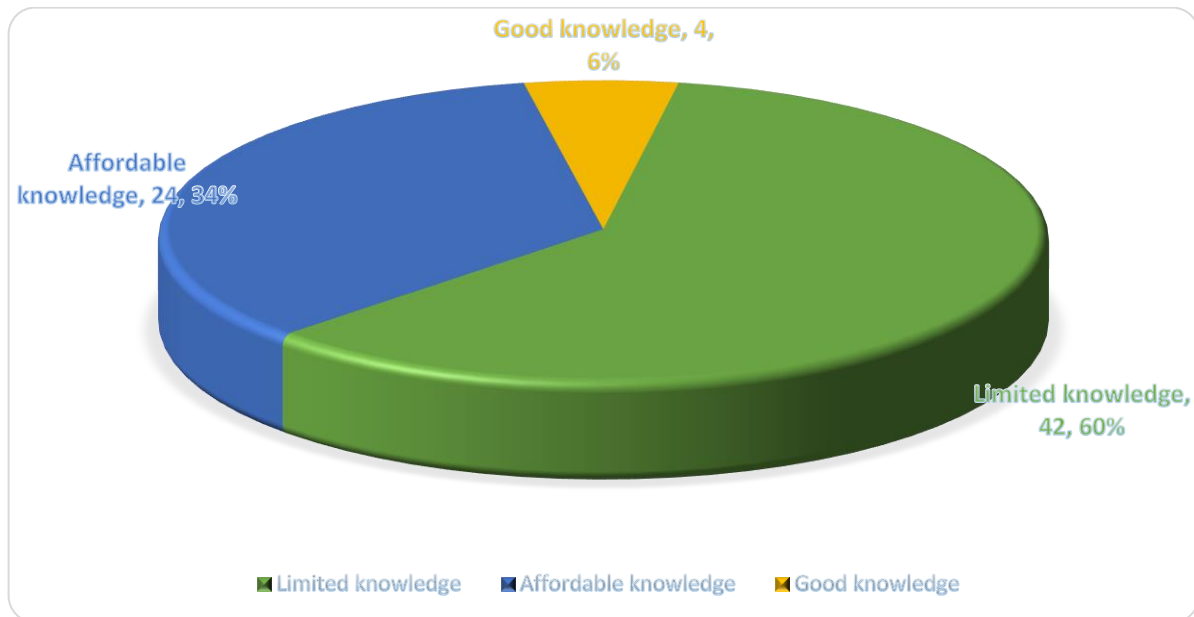


Figure 1Level of knowledge about Covid-19 among respondents

DISCUSSION

The present study sought an inventory of the actual (not assumed) knowledge of health workers about Covid-19 in the province of Maniema in the Kindu health zone.

Socio-demographic characteristics

Our study revealed that the female sex was the most represented with a frequency of 55.7%, a sex ratio of 1.26 in favour of women. These results are similar to those found in Germany 54.8%, in Ghana 57.7% (10.15); in Romania with an overall predominance of women 91.7%, reflecting to some extent the over-representation of women in the health sector [13], in India 157 (61.1%) were women [30].

In our study the age group over 40 years was the most represented with a frequency of 41.4% and an average age of 41 ± 9 years with extremes ranging from 18 to 75 years. These results are similar to those of a study conducted in Nigeria where the average age of the respondents was 35.3 years [14] and in Romania the median age (IQR) of the respondents was 41 years (33.5-47) [13]. In a study conducted in Lagos, Nigeria, the average age of respondents was 40.1 ± 10.9 years [29]. However, these results differ from those found by Almamy K at Gabriel Toure's university hospital, where 32.4 of the respondents were between 26 and 30 years old [15], and in Moba in the DRC, the average age of the respondents was 32 ± 2.1 years [16].

Regarding the marital status of the respondents, 77.1% were in a union. These results are similar to those found in Romania where most respondents were married (66.9%) and had children (68.8%) [13]. However, these results are higher than those of EDS II DRC where the overall proportion of respondents aged 15-59 years was 58.2% [31]. This difference may be due to the fact that the majority of the respondents in our study were over 40 years old.

With regard to religion 92.9% of the respondents were Christian, these results corroborate with those of EDS II or, as far as religion is concerned, about 91% were Christian with more than one in three women (37%) and one in three men (34%) declared themselves to be "other Christians" [31]. This could be explained by the fact that this group is made up of the followers of the revivalist churches, which are growing rapidly throughout the country.

As for the category of personnel surveyed, 71.4% were nurses, compared with 28.6% of doctors. This is a corollary to the gender of the respondents, who are mostly women with a predisposition to the nursing profession. These results are similar to those of the study conducted in Romania where the majority of respondents were nurses (63.7%) [13], in Moba in the DRC nurses (75.8%) were predominant [16] and the others were doctors (36.3%), while in India the majority of respondents were doctors (n = 117, 45.5%) [30]. This situation of the predominance of nurses could be explained by the multiplicity of medical education schools compared to the medical faculty, the short duration of the organization of teaching in medical technical schools compared to the medical faculty and the financial accessibility of medical technical schools compared to the medical faculty.

In our study, only about 3 out of 10 health workers surveyed said that a person cured of Covid-19 continues to be contagious, similar to the findings in Mali where Almamy K found that 40% of respondents thought that a patient cured of Covid-19 could still transmit it [15] and in the CPPA study [29] in Nigeria 34%.

In this study, the compilation of different knowledge shows that 6 out of 10 health workers have limited knowledge, about 3 out of 10 respondents have affordable knowledge and only about 1 out of 10 respondents have good knowledge. These

results corroborate with those of H. Rezaeipandari (2019) on Health workers' knowledge and attitudes towards Ebola disease, The mean knowledge score of the participants was 25.16 ± 3.58 (range 0 to 46) [32]. In India, the overall knowledge of health providers was poor (mean knowledge score: 6.57 ± 2.57) [30]. These results are far different from those found in Nigeria, where overall 72.5% had good knowledge [29].

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