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# COVID-19 Awareness Survey Data, Knowledge and behavior among Sétif students

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**Abstract**. COVID-19 is a serious infectious disease caused by the novel Coronavirus; SARS-CoV-2. It causes acute respiratory problems. This virus is highly infectious and can be transmitted by droplets or by close contact.

These data presents a survey data describing COVID19 awareness, knowledge and related behaviors among Sétif students. The data were collected from students through a survey distributed by an online questionnaire, assessing personal information (four items), COVID knowledge (five items), and related behaviors (one item), from April until June 2020. The samples consisted of 500 students who were willing to fill an online questionnaire. Microsoft Excel 2013 was used to present the data.

The results showed that the cultural level of the students reflects a large knowledge of this virus, its contagion, its transmission and the methods of prevention.

**Keywords**. Epidemic, pandemic, COVID-19, Coronavirus, SARS-COV-2

**الملخص:** إن كوفيد-19 مرض معدي و خطير يسببه فيروس كورونا المستجد المسمى سارس CoV-2، يسبب هذا المرض مشاكل تنفسية حادة كما ان الفيروس شديد العدوى ويمكن أن ينتقل عن طريق الرذاذ أو عن طريق الاتصال المباشر. يمثل هذا العمل بيانات استقصائية تصف درجة الوعي بالمرض ، المعرفة و السلوكيات ذات الصلة بين طلاب الجامعة بسطيف. تم جمع هذه البيانات من خلال استطلاع تم توزيعه بواسطة استبيان عبر الإنترنت ، و قد تم تقييم المعلومات الشخصية (أربعة عناصر) ، المعرفة بالمرض (خمسة عناصر) ، و السلوكيات المرتبطة به (عنصر واحد). جمعت العينات من 500 طالب كانوا على استعداد لملء استبيان عبر الإنترنت في الفترة من أفريل حتى جوان 2020. تم استخدام برنامج "Microsoft Excel 2013" لعرض و معالجة البيانات. وأظهرت النتائج أن المستوى الثقافي لدى الطلاب يعكس معرفة كبيرة بهذا الفيروس، و طرق العدوى، انتقاله، وطرق الوقاية منه.

**الكلمات المفتاحية** :وباء، جائحة ،كوفيد-19، فيروس كورونا، سارس-كوف -2

***corresponding author**

## 1 . Introduction

Since its debut in December 2019, a cluster of unexplained pneumonia cases has been observed and reported in Wuhan, China. The cause of the novel Corona virus disease (COVID-19) is identified as a novel β-Corona virus, called the novel Corona virus 2019 (2019-nCoV), the spread of severe acute respiratory syndrome was almost entirely via respiratory droplets of human to human transmission, posing pandemic potential (**Zhang *et al.*, 2020**). On January 30, 2020, the World Health Organization (WHO) declared the Corona Virus Disease 19 (COVID-19) pandemic, a public health emergency of international concern (**Gasparri*et al.*, 2020**). In April, 2020, more than 200 countries were suffering from the massive spread of the virus in a global pandemic with a massive and urgent crisis on health, economic and social systems (**Zhang *et al.*, 2020**). Until July 31$^{st}$, almost 300 000 new cases, were recorded, within a single day and more than 17 million confirmed infections (**Spitzer, 2020**). Since COVID-19 resembles Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) (**Yang *et al.*, 2020**) phylogenetically and symptomatically, various agents have been tried based on clinical experience with SARS and MERS ( **Zhong*et al.*, 2020**). As a large number of people became infected with SARS-CoV-2 during the COVID-19 pandemic, it became important to estimate the levels of consciousness of different levels of the population towards this pandemic. Moreover, all researchers in epidemiology and health psychology can benefit from these data to give the government recommendations to help in preventing the spread of COVID-19 among different sections of the population and can support for health education and promotion interventions in the country (**Nindrea*et al.*, 2020**).

## 2. Method and Tools

### 2.1. Presentation of the study area

A survey was carried out by means of an electronic questionnaire that was posted on Facebook covering the universities of Sétif, made up of the following faculties: Letters and Languages, Law and Political Sciences, Social and Human Sciences, Natural and Life Sciences, Medicine, Sciences, Economics and Management and Technology as well as the two institutes; Architecture and Earth Sciences and Optics and Precision Mechanics.

### 2.2. Methodology

#### 2.2.1. Survey

The survey data was conducted from 500 students in Sétif to assessing COVID19 awareness, knowledge and related behaviors with internet access. The data include two major group of variable: (a) personal characteristics, including age, sex and scientific specialty; (b) six items for COVID-19 knowledge including information about COVID-19, seriousness of COVID and symptoms of theCOVID-19; (c) one item on behaviors including prevention methods of the COVID-19.The questionnaire (**Fig.1**) was designed and made using Google forms then was shared on Facebook.

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## Scientific study of COVID-19

The questionnaire in which you are going to participate was created as part of an end-of-study project. We invite you to answer as seriously as possible the questions that will be asked of you. Your responses will only be processed for statistical purposes and in a completely anonymous manner. Thank you in advance for your help

- Age
- Sex
- Faculty
- Specialty (only for biologists)

1) Do you know the Covid-19?
2) The Covid-19 is:
- A bacteria
- A virus
- A parasite

3) Covid-19 is:
- Contagious

### 2.2.2. Description of the population

✓ **By age:** The ages of the interviewed persons range from 18 to 28 years old (**fig.2**). They are divided into three age groups: from 18 to 21, from 22 to 25 and from 26 to 28. These intervals represent the age of the student at different academic levels.

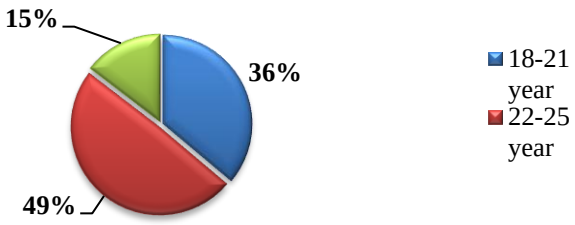


**Fig. 2: Distribution of the sample by age**

✓ **By gender:** The sample is split between the two sexes: 36% male and 64% female. The high female student rate reflects the actual enrollment ratio in terms of gender in Algerian universities.

✓ **By scientific specialty:** The study covered all specialties (**Fig.3**) with the highest rate for the faculty of natural and life sciences (36,57%) because the groups with which we are affiliated as well as our acquaintances who accepted to contribute to the survey are, for the most part, part of this faculty.

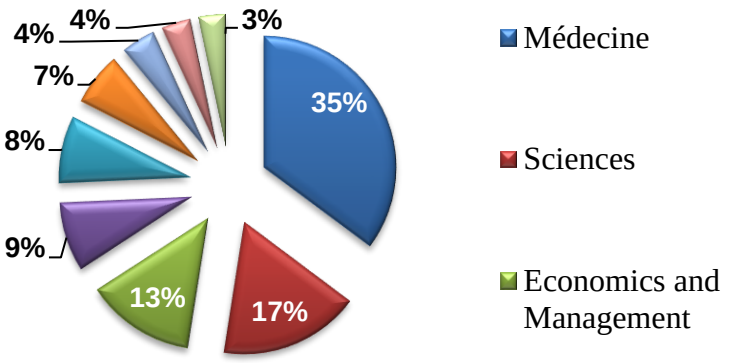


**Fig. 3: Distribution of the sample by the scientific specialty**

### 2.2.3. Statistical analysis

The processing of the results as well as the design of the graphic presentations, were carried out by Microsoft Excel 2013.

## 3. Results and Discussion

After conducting a questionnaire that included 500 people on knowledge of COVID 19, it was found that 97,7% of students know about it, compared to 2,3% who had no idea.These percentages found are independent of age, gender and specialty. The results show that almost all of the elites surveyed know about this COVID-19 virus because it has spread terribly and has invaded the whole world. Likewise, this virus has almost affected all cities so everyone was aware of it.

### 3.1. Knowledge of the causative agent of this disease

This part of the results only includes people who know about COVID 19. According to the results, 99% of the students agree that it is a virus, which makes sense from its nomenclature (Corona **virus**). However, a few students (0, 8% / 4 person) believe that the causative agent of the disease is bacteria and 0, 2%, or one in 500 students, claim that it is some kind of parasite. The rate of 99% is justifiable, because students already know COVID 19 by the frequent name of Corona virus, which is composed of two parts: Corona meaning crown and Virus.

### 3.2. Knowledge of the contagion of COVID-19

Of those who have an idea about COVID-19, 97% are aware of the danger and contagiousness of it, while 3% don't think so.

### 3.3. Knowledge of the incubation period

The incubation period of the virus is known by 97% of students, they estimate it to be 14 days and on the other hand 3% do not know exactly this period (**fig.4**). In fact, this information is largely confirmed bythe WHO and the **CDCP (2020)** who reported that the incubation period for COVID-19 is thought to extend to 14 days, with a median time of 4-5 days from exposure to symptoms onset. It must be admitted that social networks as well as television channels have largely contributed to raising awareness and informing citizens to prevent the spread and contamination by the virus.

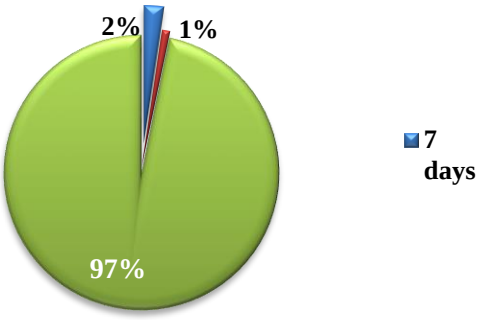


**Fig. 3: Knowledge of the incubation period**

### 3.4. Most Known (Common) Symptoms

According to this survey (**fig.4**), fatigue, breathing difficulties and fever are the most well-known symptoms with the predominance of breathing difficulties (91, 8%) followed by fever (88, 7%) and fatigue (81, 7%).

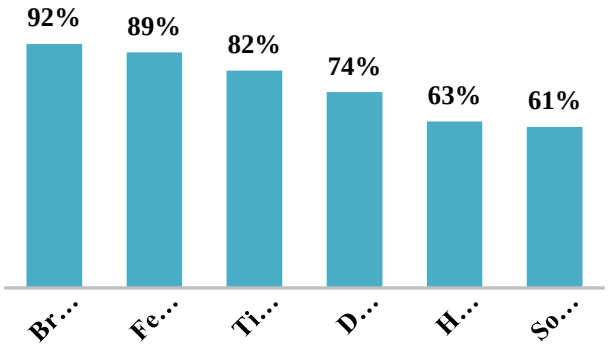


**Fig. 4: Knowledge of symptoms**

These results are authentic and follow the descriptions of the specialists. Previous studies showed that the clinical manifestations of patients with COVID-19 in Wuhan mainly included fever, chill, cough, difficulty in breathing, muscle soreness, fatigue, and complications such as acute respiratory distress syndrome (ARDS), acute kidney injury, acute cardiac injury, etc (**Yang *et al.*, 2020**). These high percentages are due to several factors, the most important of which are the use of means of communication such as television and radio to obtain precise information. Most of the population uses social networks (Facebook, YouTube, etc.) to obtain rapid information, which has made everyone aware. But we must admit that some of this information is not accurate, and rumors also give false information. In their survey in Japan, **Shiina et *al.*, (2020)**, found that the dominant source of information about COVID-19 was TV, followed by online news and official announcements by the government. Incontrast, radio and counseling by a specialist were rarely used. Regarding the credibility of each information source, participants were likely to distrust social network services, and also placed little trust in other information sources.In addition, the students have benefited of the quarantine time and the discontinuation of studies for research and knowledge of this emerging virus.The state of fear, panic and propaganda about this unknown virus prompted the students to gather basic information about this virus. Because of similarities with β-Coronaviruses such as SARS-CoV and MERS-CoV (**Yang *et al.*, 2020**), the community already has some information about Corona virus without forgetting that many doctorshave made their phone numbers available to

citizens to get information about COVID 19.**Almomaniand Al-Qur'an (2020)**, conclude that with the imposition of curfew measures to combat the spread of the Corona virus, social networks and online platforms have become the most interactive and important tools for social discussions remarkably for a short time and can last longer than expected, based on the status of the Corona virus and the stability of the epidemiological situation in various countries around the world.

### 3.5. Most well-known (widespread) means of transmission

According to the students surveyed, hand transmission is the most well-known means of transmission with a percentage of 93, 5% (**Fig.5**), followed by cough (60, 5%). According to **Shiina*et al.* (2020)**, COVID-19 virus is transmitted during close contact through respiratory droplets (such as coughing) and by fomites. This result is explained by the fact of the massive presentation of advertisements and popularization regarding the careful washing of hands after every gesture during the emergence of this disease. Aerosols emitted by a patient (by by cough) can also present a potential means of contamination. However, no transmission of respiratory viruses through blood or constituents of blood has never been reported**(WHO, 2020[a])**or urine **(WHO, 2020[b])**. Due to the great flow of information on this subject, people have been confused and tend to believe any information without being sure of its truth. One of the social studies reported by **Almomani and Al-Qur'an (2020)** showed that most people circulate false information and false allegations because they are unable to determine the reliability of this information, whether from a medical or scientific point of view. Additionally, the resemblance between COVID-19 and influenza leads people to confuse the two. The basic concept in mode of viral transmission is mainly through inhalation/ingestion/direct mucous contact with saliva droplets, respiratory fluids and aerosols (**Kanaparthi, *et al.* 2020**).

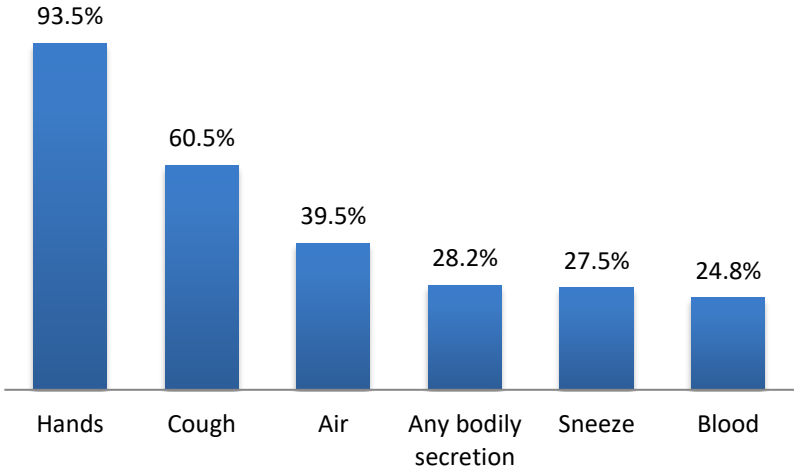


**Fig. 5: Knowledge of the means of transmission of the virus**

### 3.6. Most famous (widespread) prevention method

Among the known prevention methods, it is washing hands several times (93, 9%), the use of hydroalcoholic gel (88, 9%), the use of bleach (85, 3%), home confinement (71, 8%), the use of disinfectant solvents (57, 8%), and the use of alcohol (55, 1%) (**Fig.6**). Considerable part of the students does not distinguish between antiseptic and disinfectant (bleach) which is not

intended for skin use. Likewise, many do not know that the active ingredient in both cases (alcohol and hydroalcoholic gel) is alcohol so they consider they consider the two to be different. In any case, people must, therefore, cohabit with this virus.It has been proved that wearing face masks is one of the most effective preventive measures, people can take to protect themselves and others from becoming infected with the virus, so as mask wearing by infected individuals reduces transmission risk, and because of the high proportion of asymptomatic infected individuals and transmissions, by now there is a strong case for the effectiveness of widespread use of face masks in reducing the spread of COVID-19 **(Spitzer, 2020)**.Therefore, to limit virus transmission, the WHO continues to recommend performing frequent hand hygiene, using respiratory protection, regularly cleaning and disinfecting surfaces, maintaining physical distances, and avoiding people with fever or respiratory symptoms. Some countries have repeatedly called on residents to avoid going out on weekends since (**Shiina et *al.*, 2020**). In principle, we are in a learning phase, and new information's are being updated every second (**Kanaparthi, *et al.*, 2020**).

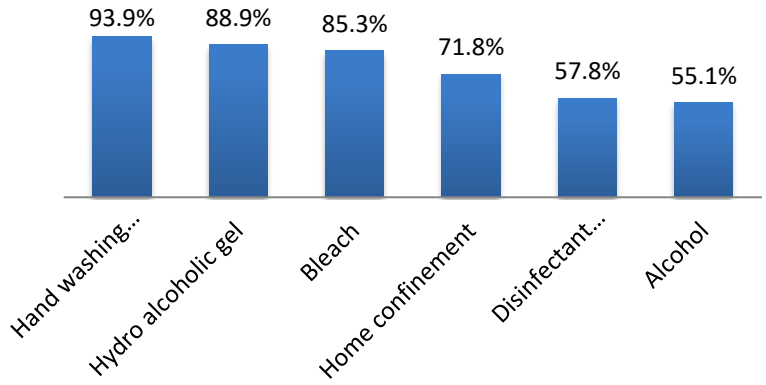


**Fig. 6: Knowledge of prevention methods**

## 4. Conclusion

This survey has highlighted the enormous role of awareness raising or orientation campaigns as well as propaganda which have helped to raise awareness in society in general and among students in particular. However, the lack of up-to-date scientific information leaves the field open to anyone to give information or advice that may not be true, which requires students, above all, to ascertain the sources of their information.In perspective we suggest to sensitize students and university staff, especially those outside the fields, on the dangerousness and contagion of this virus, to follow the recommendations of health specialists in our universities and to create methods that help to respect and involve the rules of hygiene and sanitary distancing in our universities

## References

Almomani, H., & Al-Qur'an, W. (2020). The extent of people's response to rumors and false news in light of the crisis of the Corona virus. *Annales Médico-Psychologiques, Revue Psychiatrique*, *178*(7), 684-689. https://doi.org/10.1016/j.amp.2020.06.011

Gasparri, M. L., Gentilini, O. D., Lueftner, D., Kuehn, T., Kaidar-Person, O., & Poortmans, P. (2020). Changes in breast cancer management during the Corona Virus Disease 19 pandemic : An international survey of the European Breast Cancer Research Association of Surgical Trialists (EUBREAST). *The Breast*, *52*, 110‑115. https://doi.org/10.1016/j.breast.2020.05.006

Kanaparthi, A., Dukkireddy, D., Gopalaiah, H., Kesary, S. P. R., Katne, T., & Gantala, R. (2020). Awareness of COVID 19 pandemic among dental practioners of Telangana state, India : A cross sectional survey. *Journal of Oral Biology and Craniofacial Research*, *10*(4), 484-489. https://doi.org/10.1016/j.jobcr.2020.08.001

*Management of Patients with Confirmed 2019-nCoV | CDC*. (s. d.). Consulté 21 octobre 2021, à l'adresse https://sci-hub.se/https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html

Shiina, A., Niitsu, T., Kobori, O., Idemoto, K., Hashimoto, T., Sasaki, T., Igarashi, Y., Shimizu, E., Nakazato, M., Hashimoto, K., & Iyo, M. (2020). Relationship between perception and anxiety about COVID-19 infection and risk behaviors for spreading infection : A national survey in Japan. *Brain, Behavior, & Immunity - Health*, *6*, 100101. https://doi.org/10.1016/j.bbih.2020.100101

Spitzer, M. (2020). Masked education? The benefits and burdens of wearing face masks in schools during the current Corona pandemic. *Trends in Neuroscience and Education*, *20*, 100138. https://doi.org/10.1016/j.tine.2020.100138

*WHO[a]-2019-nCoV-BloodSupply-2020.1-fre.pdf*. (s. d.). Consulté 21 février 2021, à l'adresse https://apps.who.int/iris/bitstream/handle/10665/331742/WHO-2019-nCoV-BloodSupply-2020.1-fre.pdf

Yang, L., Liu, J., Zhang, R., Li, M., Li, Z., Zhou, X., Hu, C., Tian, F., Zhou, F., & Lei, Y. (2020). Epidemiological and clinical features of 200 hospitalized patients with corona virus disease 2019 outside Wuhan, China : A descriptive study. *Journal of Clinical Virology*, *129*, 104475. https://doi.org/10.1016/j.jcv.2020.104475

Zhang, D., Zhang, B., Lv, J.-T., Sa, R.-N., Zhang, X.-M., & Lin, Z.-J. (2020). The clinical benefits of Chinese patent medicines against COVID-19 based on current evidence. *Pharmacological Research*, *157*, 104882. https://doi.org/10.1016/j.phrs.2020.104882

Zhong, H., Wang, Y., Zhang, Z.-L., Liu, Y.-X., Le, K.-J., Cui, M., Yu, Y.-T., Gu, Z.-C., Gao, Y., & Lin, H.-W. (2020). Efficacy and safety of current therapeutic options for COVID-19 - lessons to be learnt from SARS and MERS epidemic : A systematic review and meta-analysis. *Pharmacological Research*, *157*, 104872. https://doi.org/10.1016/j.phrs.2020.104872