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The Tunisian Women Doctors Leading the Struggle Against COVID-19: Hope for the Rise of a New Ethical Culture

By Lilia Labidi

Tunisia, like the other countries of the Arab Maghreb, is especially vulnerable to the impact of the novel coronavirus both to their healthcare systems and economies. Still transforming since the fall of Zinedine Ben Ali's dictatorship in 2011, the Tunisian health sector is still stricken with many flaws and deficiencies. Even so, Tunis has had a long tradition of training excellent doctors and medical faculties, some of the best on the African continent. The country's healthcare sector is also increasingly feminized, which is true of the field worldwide, but this trend has accelerated

since the introduction of private health providers. Many doctors, especially men, have chosen to pursue their medical careers abroad facing stagnation in their homeland.

In light of these challenges, Tunisia's still emerging democratic government is now being tested by the pandemic – one of the truly international crises it has faced. After several weeks of negotiation, the government of Habib Jemli, which included among its members 9 women and two ministers representing Jewish





and Black minorities, was rejected by parliament. On February 26, 2020, parliament finally gave a vote of confidence to Elyes Fakhfakh to head the government under the duress of confronting the spread of COVID-19. As the response to the crisis mounted, women care-givers, doctors and psychologists stood up to the challenge in a healthcare system that was suffering from authoritarian attitudes, divisions between the disciplines, and great regional disparities with regard to equipment, personnel, and equality of access.

However, the context of the COVID-19 pandemic has provided an opportunity for a number of Tunisian women doctors, caregivers and psychologists to gain visibility and sometimes even fame. These women are found across the spectrum of the Tunisian medical establishment from doctors, frontline staff, to researchers and bureau chiefs in the Ministry of Health. This essay presents a number of cases of women who emerged during this critical time. Beginning with a brief discussion of the history of Tunisian women in medicine, we will then turn to how the country has reacted and dealt with the pandemic and its economic and social consequences. From that discussion we will address several cases of specific women doctors and psychologists whose elevated public positions have made them well known figures in Tunisia's confrontation with the crisis. Finally, the emergence of these women as public leaders conducting an objective and deliberate response to the problem suggest the development of a new scientific and ethical culture following the long period of democratic transition ongoing since January 2011.

The History of Tunisian Women in Medicine

The history of Tunisian women in modern medicine begins with Tawhida Ben Cheikh, the first Tunisian Muslim woman to produce a doctoral thesis, titled "Contribution to the Study of Myxedema in the Infant," at the Medical Faculty of Paris in 1936, becoming the 31st among the first 100 Tunisian Muslim doctors. During her first year of study she benefitted from a French fellowship of 5,000 francs. The French Dr. Burnet and his wife played central role in her education and formation. Also, Badra Ben

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Moustapha and Frida Agrebi, both midwives, earned their diplomas from the Algiers Faculty of Medicine in 1936. In 1950 Hassiba Ghilleb became the second Tunisian woman to earn a medical degree at the Paris Faculty of Medicine. In total, up until independence in 1956, Tunisia's Muslim population counted only two women doctors and two certified women midwives.

When the Tunisian nation-state regained its independence from colonial rule in 1956, infant and maternal mortality rates were at high levels, life expectancy was relatively short, and the country needed to create many institutions devoted to health. Numerous women gained access to the



Tunis Faculty of Medicine under the direction of Professor Amor Chedli, who in 1964 founded the first faculty of medicine in Tunisia. He recounted an anecdote to me in 2016: A western medical expert, who had been invited to Tunisia to participate in establishing Tunis' first medical faculty, recommended that no more than 10 percent of the registered students be women since, in his view, the majority of women students would get married and would leave the profession. By this time Tunisia had already promulgated the Personal Status Code which encouraged young women to register at universities to study. Fortunately, the recommendation of limiting the number of women was not followed.3 As an indication of the fragility of the healthcare system during the early years of independence, Naima Khrouf, a professor in neonatology and among the first graduates of the Tunis Faculty of Medicine, told me that when she was a child she was terrified that her father or mother might die. This fear was further elaborated by Souad Lamine, a professor in preventive and social

pediatrics and also among the first graduates of the same faculty. The choices of the first Tunisian women doctors for preventive and social pediatrics and obstetric gynecology, she said, had their roots in the urgent need to save mothers and babies from death.

With the healthcare system beginning to improve in the 1960s and 1970s, the structural adjustment policies proposed by the IMF in the 1980s opened the state-dominated Tunisian economy, including the medical sector, to private investment and global competition. This led many medical personnel, especially men, to leave the public sector and enter the private sector. In addition, Europe's increasing need for medical personnel, along with the unrest in Tunisia following the "Arab Spring," led to the emigration of medical professionals of both sexes.4 Hundreds of Tunisia's doctors and health workers are now leaving the country every year - the older ones heading towards France, the younger ones towards Germany, with nurses and other professionals tending to emigrate to the

[Tunisia] imposed a number of restrictions: air and sea transportation was limited, schools and universities closed, and group prayers in mosques, cultural gatherings, and collective political meetings were all suspended.

countries of the Arab Gulf. Partially as a result of this population movement, the trend toward feminization of the health sector, which began in the early 2000s, has become more pronounced in recent years.⁵ Without the women who today are professors, heads of hospital departments, directors of research, and students at the medical faculties, the health system would be in critical condition. Even more so in the context of COVID-19.⁶

Tunisia Battles COVID-19

The countries of the Arab Maghreb – Tunisia, Algeria, Morocco – known for their cultural similarities, also show similarities in their first COVID-19 cases. The virus infected one tourist and two workers originally from these countries, with all three having come from Italy. The first confirmed case was discovered on February 27, 2020, in Algeria and on March 2, two other cases were confirmed in Tunisia and Morocco. Starting March 12, Tunisia, which has approximately 11.5 million inhabitants, imposed a number of restrictions: air and sea transportation was limited, schools and universities closed, and group prayers in mosques, cultural gatherings, and collective political meetings were all suspended. On March 17, a curfew from 6pm to 6am was decreed, followed by the announcement of total confinement

for the population and circulation forbidden between population centers. While widespread and frequent hand washing did not raise any concerns, wearing masks was quickly compared to wearing the niqab, leading to a number of humorous anecdotes. 8



Riham El Horr – "Muslims forbidden to enter mosques and not allowed to express their faith during Ramadan 2020"

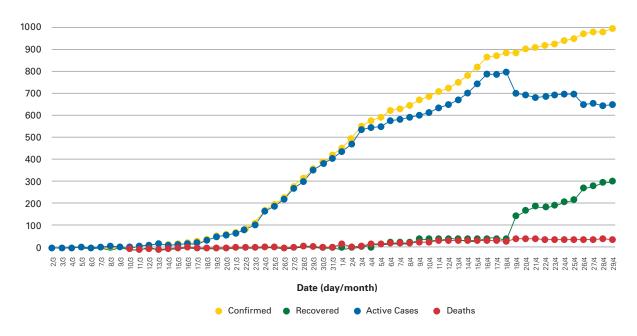
Implementation of preventative measures and behaviors has not been easy. Social distancing has often been challenged by people from different social groups. For example, marriages have been celebrated at night, some imams have led collective prayers, and a parliamentarian from the Echaâb party (oriented toward Arab nationalism) who was a university teacher and former Minister of Education (from March 2013 to January 2014) was filmed playing soccer in the street. Youths and adults of both sexes, after prayers at home, went out into the streets of their neighborhoods to implore God to protect them from the coronavirus. Burials of those who died from COVID-19 often led to groups of people gathering to stop funerals out of fear this might lead to further infections at the cemetery. Once the government announced that it would

provide 200 dinars as an unemployment subsidy to aid the very poor, other groups gathered in front of various offices of the postal service, where the money was supposed to be distributed.

Economic life has been severely affected, leading to a loss of revenue and employment in numerous sectors. Under pressure from the liberal professions, workers and crafts people on the one hand, and from business leaders on the other, the government instituted a partial relaxing

of restrictions starting May 4. Meanwhile the Minister of Health expressed his reservations, declaring that the country hadn't yet reached "the peak of its coronavirus infections," that the decline in infectious cases was fragile and that, therefore, Tunisians were not protected from a second wave. Up to April 29, Algeria and Morocco had witnessed, respectively, 1,821 and 928 deaths. On April 30, 2020, Tunisia counted 994 cases of infection, 41 deaths, and 305 recoveries.

(Figure 1) COVID-19 Confirmed, Recovered, Active Cases, and Fatalities in Tunisia



Source: Ministère de la santé, Tunisie (March 30, 2020).

As a symptom of the challenges outlined above, the information battle has also been tough. Satellite television, private television channels, and the internet have all enabled Tunisians since the fall of the Ben Ali regime to gain access to an unlimited amount of information from around the world, both true and fabricated.¹⁰ Consequently, it is not surprising that, with some facts about the virus challenged and obscured in certain countries, many misconceptions and rumors also spread through local news and social media networks in Tunisia. The view that the coronavirus was man-made. expressed by Professor Luc Montagnier, a Nobel Prize winner in medicine, was commented on by a number of Tunisian doctors, many of whom were critical of this view.¹¹ In a similar incident, the "man-made virus" speculation was attributed to Professor Tasuku Honjo, also a Nobel Prize winner in medicine, but Dr. Honjo clearly distanced himself from it in a statement that was widely seen in Tunisia. 12 To settle the matter though, the WHO declaration which confirmed that the coronavirus in Wuhan was of natural origin, put an end to speculation that China would have to pay indemnities for the effects of the coronavirus. 13

Despite the clouding of accurate information about the coronavirus, Tunisians are wisely emulating measures taken by countries in Asia such as China, Singapore, Vietnam, Thailand, and the city of Hong Kong to contain the virus: closing borders, stay at home orders, social distancing, and publishing scientific articles. In Wuhan, a new hospital was constructed over a period of ten days. In Vietnam, artists were commissioned to produce publichealth posters. Many Asian countries managing the outbreak offered aid to European countries in similar circumstances. Tunisians also discovered how the actions of the ophthalmologist Dr. Li Wenliang, who

had been the first to warn about the coronavirus, attracted the attention of the Chinese public on the dangers of an epidemic, even though the government tried to silence him and he later died of the virus.

In this context, while the Tunisian authorities stated that they were in control of the situation and that there were fewer than twenty cases of coronavirus infections, for Dr. Zakaria Bouguira, a resident doctor of resuscitation, the medical sector was not prepared to confront such a pandemic. He decided to discuss this with members of the Tunisian Organization of Young Doctors (OTJM), department heads, nursing officials, and trade union figures. He was seen by many as exaggerating the problem and he decided to alert the public's attention. Dressed in a white medical uniform, on 13 March he arrived before the government headquarters at Kasbah Place and quickly produced two posters, one calling for the closing of mosques, the other for the closing of borders. That very evening Prime Minister Elyes Fakhfakh announced on television that most of Tunisia's cases were in individuals who had been infected abroad, and that he had decided to suspend collective prayers and stop all flights to Italy, while maintaining one daily flight to and from France, and weekly flights to Spain, Great Britain, Germany, and Egypt.

Dr. Bouguira produced a video to show, with the aid of mathematical models, that the number of individuals vulnerable to infection was higher than the official figures, attracting more than a million views on Facebook. When he was invited to present his views on a televised sports program, Nissaf Bouafif Ben Alaya, Director of the National Observatory for New and Emergent Diseases (ONMNE) within the Ministry of Health, called in by

telephone to dispute the model and refused to enter into a discussion with him. ¹⁵ The following day the doctor, who had alerted Tunisia to the danger was discredited by officials from the Ministry of Health and attacked by an army of people on Facebook for not having respected the administrative and medical hierarchy. However, the doctor was supported by his department head and later the Order of Doctors also expressed its support.

While the debate raged on however, the authorities took huge steps to confront the pandemic. Tunisians discovered, with dread, the government decision to deduct one day's pay from the salaries of workers in the public and private sectors, and the Ministry of Health appealed directly to the public to contribute financially to containment efforts through purchase of tests, masks, and PPE. They also confronted the country's lack of health equipment, the very high charges imposed by private clinics to treat COVID-19 patients, ¹⁶ and an unexpected increase in the mortality of those participating in the National Office

of Social Security (Caisse nationale de la sécurité sociale), with deaths for the month of April reaching 627 (whereas the previous monthly number was 50.) The increase in deaths was revealed by the cardiologist and former parliamentarian Sahbi Ben Fredj on his Facebook page, casting doubt on the official statistics from the Ministry of Health, which was probably not accounting for COVID-19 deaths occurring at home (although this may have also been related to the efforts by families to avoid declaring COVID-19 as the cause of death, fearing that the body would not be permitted burial in normal cemeteries.) Finally, this increase may also be explained by the difficulties facing those with other ailments in reaching emergency treatment while healthcare services were concentrated on the pandemic. While the Ministry of Social Affairs challenged these figures, the Ministry of Health quickly appealed to the population not to hide COVID-19 cases and report symptoms as early as possible.

(Figure 2) Density of doctors in the public sector, per 10,000 inhabitants.

Regions	General practitioners	Specialized doctors
Greater Tunis	2.13	4.36
North East	1.94	1.54
North West	3.28	1.31
Center East	2.3	4.48
Center West	2.66	1.19
South East	2.94	1.69
South West	4.33	1.57
All of Tunisia	2.57	2.09

Source: Ministère de la Santé. Direction des Etudes et Planification. S/Direction des Statistiques. Santé Tunisie en chiffres, 2017 (Préliminaire), March 2019. p. 104.

Tunisia's Women Doctors Fight COVID-19

As the situation above highlights, though the government began taking serious steps to confront the crisis, the COVID-19 pandemic has created a difficult political and economic context in which the media also exerts significant power. The struggle of women healthcare workers against the COVID-19 pandemic requires them to make major adjustments on the personal, familial, and professional levels. Narrowing on the experiences of six women in the health sector in Tunisia illustrates their successes, levels of commitment, their awareness of strategies and best practices in other countries, and their scientific curiosity.

Professeur Ilhem Boutiba Ben Boubaker,

director of the microbiology laboratory at the Charles-Nicolle Hospital in Tunis, owes her high standing to having performed the first partial sequencing of the virus SARS-CoV-2 in Tunisia. She recognizes, modestly, that the results she obtained, while not an actual discovery, would allow researchers to compare the mutations of the source virus in Tunisia and elsewhere. She takes pride in the fact that despite the weak financial support for research and the great effort required to detect and diagnose COVID-19 cases, she and her team enabled Tunisia to become the first country in the region to publish its results in GenBank¹⁷, with the aim of tracing the virus and its mutations.¹⁸

Nissaf Bouafif Ben Alaya is an associate professor in preventive medicine and directorgeneral of the ONMNE in the Ministry of Health, which was founded in 2005. Her appearances in daily press conferences held in Tunisia on the advancement of COVID-19 have made her into a

familiar public figure. 19 In her televised intervention by telephone, to oppose the model being presented by Dr. Zakaria Bouguira projecting the coronavirus spread, she refused to enter into a dialogue with the young doctor and her behavior, in a context where the country was opening itself to democratic procedures and to a plurality of viewpoints, surprised many and might appear as a legacy of the authoritarian culture that dominated until 2011. In fact, even while Dr. Ben Alaya wished to defend national healthcare institutions, Tunisians were well aware of their defects. Several days later, she publicly expressed the severity of the crisis, resembling Chancellor Angela Merkel's remarks that characterized every death as that of "a father or grandfather, a mother or grandmother, a partner ... ", and that COVID-19 was "serious - so take it seriously." A few online media outlets later published several columns concerning Ben Alaya's actions and national television devoted a program to praising her work.

Jalila Ben Khelil, is a professor of resuscitation at the Abderrahmane Mami Pneumo-phthisiology hospital in Ariana, which was transformed into a hospital unit specializing in treating coronavirus patients and thus became a significant site for the struggle against and treatment of COVID-19.20 Professor Ben Khelil is also member of the commission that tracks the spread of the coronavirus in Tunisia. In addition to spending many days and hours among critically ill, she is also a member of the joint commission within the Ministry of Public Health for the operation of hospitals and the verification of COVID-19 chains of transmission, and in charge of the certification of new clinics devoted to the treatment of COVID-19 cases.²¹ She has appeared on television a number of times to explain to the public, in clear terms,

the developments of the health situation since the emergence of the virus in Tunisia.



La Bulle de Dlog (Nadia Dhab) – "The people demand the fall of the Coronavirus"

Tunisian women psychologists, who had already been in the public view to address violence against women, also took on a public role in the context of the struggle against COVID-19 by setting up telephone consultations and special lines to answer various questions on confinement guidelines and domestic violence. Among these psychologists, a certain group has carried out a number of COVID-19 related activities. As soon as the first coronavirus case was identified in Tunisia, the three women who founded the Tunisian Association of Health Psychology (ATPS) in 2006, which brings together psychologists, doctors, and anthropologists, mobilized to set up a Facebook page to distribute information and ideas about the pandemic.

On March 24, 2020, the ATPS published a declaration calling upon the government to carry out a study on the behavior of Tunisians during

confinement and on April 24 the government announced that it was launching such a study. On May 6 the results of the study, which posed fewer than 10 questions to a sample of 1,500 people, was published and confirmed the great concern women expressed towards the COVID-19 pandemic.

The ATPS also declared on May 8 its criticism of the Ministry of Health's definition of mental health, stating that this was not limited to an absence of mental disorders but also covered, from the perspective of prevention, a state of well-being that would allow the individual to fulfill oneself. The ATPS criticized the compartmentalization of various theories and disciplines and referred to the WHO's definition of mental health: "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."²²

Imen Belgacem, holder of a doctorate in clinical psychology from the University of Strasbourg in France and university lecturer in Monastir, focuses her research on cultural aspects of the relationship between the members of the medical profession and patients. Since the first appearance of COVID-19 in Tunisia in February 2020, she has directed the Facebook page of the ATPS.²³ Her multi-disciplinary orientation (psychology, anthropology, medicine, history, law, etc.) and her attention to the variety of situations across the globe have brought a cultural dimension to the discussion on the impact of confinement and reopening on children, adults, and particularly on women who are often victims of domestic violence. In addition, her contributions often have a playful quality that appeals to children as well as to adults.



Pathologist at work in the lab, Tunis, Tunisia. Photo Courtesy of Flikr.com, Global Environment Facility

Emna Kalai, a clinical psychologist in pediatrics and neo-natology at the Marsa Hospital, has focused her research in recent years on storytelling as a therapeutic tool for children with diseases. Since the outbreak of the COVID-19 pandemic she has been collaborating with the artist Nada Dagdoug in a comic strip entitled, "And let's talk about corona," which is aimed at children and distributed on the ATPS Facebook page.

Insaf Zitouni, a clinical psychologist who has been in charge of research for almost two decades at the Institut National de Protection de l'Enfance in Manouba and is president of the ATPS, has been carrying out a research project on the internet concerning Tunisians' behavior since the start of confinement. Among the 232 individuals from Tunis and from the region of the city of Sousse who responded to the research questionnaire from April 6 to 9, almost two-thirds were women, 45

percent were aged 35 to 50, 77 percent completed a university degree, 65 percent were married, and 39 percent were public sector employees. Of the respondents, 78 percent stated that they were worried about confinement. The project also revealed that women heads of households (widows, divorced or separated women) have more negative experiences of confinement than other social groups. And almost 30 percent refer to difficulties encountered with children and husbands during confinement.²⁴

As the research cited above shows, Tunisian women were very concerned regarding the coronavirus and reacted strongly when the government sought to put in place policies where mothers of young children would be required to stay at home with their children. Such a measure first appeared on May 2, 2020 with a decree in the Official Journal of the Republic of Tunisia stipulating that mothers

whose children were not older than 15 would continue to be subject to the rules of confinement. Tunisian feminists reacted immediately by denouncing the sexist nature of this decree and the government, hoping to avoid polemics on this issue, stated that there had been "an error" and published, on Sunday May 3, a new version of Article 10 of governmental decree n° 2020-208 of May 2, 2020, replacing "pregnant women and mothers whose children are no older than 15 years of age" with "pregnant women" and noting that "children under 15 years of age remain subject to total confinement measures." This occurred in a context where schools, childcare centers, and nurseries were shuttered until the beginning of the next academic year. The feminists made it known that they would have preferred that the term "mothers" be replaced by "parents," leaving up to the parents the choice of who would stay home with the children. Some ten days later the government announced specific measures that would open centers devoted to children with autism and other special needs starting on May 18, 2020.²⁵

Conclusion

The COVID-19 pandemic has presented a need to view public health more broadly, break down barriers between disciplines and build bridges between perspectives. Certainly, the one-discourse culture inherited from the authoritarian regimes of Habib Bourguiba and Zinedine Ben Ali has deeply marked the Tunisian imaginary, with a significant section of the population adopting this perspective and continuing to defend it after January 2011. However, the changes that have emerged since the fall of the autocratic government, while certainly not sufficient for the construction of a truly democratic

culture, can help contribute to the formulation of a new ethical culture in this historical period of transition.

In this new cultural context, women doctors and psychologists have gained greater visibility, allowing the Tunisian public to learn from their behavioral guidance and their philosophical positions and to consider how these might influence government decisions aimed to preserve citizens' health. The pandemic has also provided researchers with the opportunity to make their research results more widely known and to have an impact, directly and indirectly, on the population and on the field nationally and globally. Many of these women researchers and professionals are taking advantage of their new visibility to emphasize the need for public health, the unique impacts of confinement on women, and the overall civic mindedness that Tunisian's need to pull through the crisis in a stronger state. This is indeed a steppingstone in the growth of the ethical culture that will strengthen Tunisia's long-term democratic health.

Most importantly, the popularity gained by these women doctors and psychologists amidst this pandemic has not grown because of social status nor acquired through political affiliations. The public has clearly seen how these women doctors and psychologists have reached prominence through hard work and expertise – at the cost of significant personal sacrifices for the physical and psychological benefit of others. In homage to the care-givers who are at the front lines of the fight against the coronavirus, in March 2020, Marouane El Abassi, head of the Tunisian Central Bank, presented a new 10-dinar banknote featuring the portrait of Tawhida Ben Cheikh – the first Tunisian woman doctor.

The opinions expressed in this article are those solely of the author.

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Lilia Labidi

Lilia Labidi, an anthropologist and psychologist, is the author of many publications on the Arab world, treating subjects such as the history of the feminist movement, psychology and sexuality, the construction of identity, attitudes towards death, among others. She has also organized a number of national and international conferences and exhibitions on gender issues.

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