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RESEARCH ARTICLE

COVID-19 DIAGNOSIS ANNOUNCEMENT

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Abstract

Introduction: Physicians find it difficult to announce the diagnosis of Covid-19 and often resort to the advice of a psychiatrist. This is due to the fear of the patients reaction and the negative psychological impact that the announcement would cause, the poorly known evolution of this pathology and to the lack of training regarding Covid-19 diagnosis announcement practices. The purpose of our study is trying to better understand the current practice and the difficulties encountered during the Covid-19 diagnosis announcement as well as evaluating the patients general reactions.

Material and Methods: Quantitative, descriptive and analytical, cross-sectional study based on an online questionnaire.

Results: 114 physicians filled in our questionnaire. More than half of them had not received any training regarding Covid-19 diagnosis announcement. 94.7% of the physicians believe that it is necessary to announce the diagnosis of Covid-19, most of them considering it as an asset in their disease management. The reluctance to announce a disease with a severe prognosis, along with the fear of negative social and therapeutic repercussions, would slow down clinicians in their practice. Although most clinicians provide a variety of information (clinical, therapeutic, prognostic, target symptoms, and treatment side effects), the majority of participants were satisfied with the information they provide to Covid+ patients.

Conclusion: A framework for the diagnostic process, training dedicated to the announcement and the use of material aids should be considered in order to limit these difficulties and to support physicians in their practice. In this respect, primary care physicians are almost unanimous in their desire for specific training.

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Introduction:-

This century, the whole world has experienced the shaking of a new zoonosis. The coronavirus SARS-Cov-2 appeared in China at the end of 2019, spreading in a few weeks in the different countries of the planet.^{1,2,3} Coronaviruses have long been known by the medical and scientific community.⁴ The disease caused by this virus is called COVID-19 (Coronavirus Disease 2019). Severe cases often progress rapidly, to respiratory distress requiring intensive care. COVID-19 is declared a pandemic on March 11, 2020.⁵ Humanity is immune naïve and the pandemic is progressing, undermining the health system of all affected countries.

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The sudden massive arrival of infected people and the number of new recommendations make it difficult to maintain an efficient level of knowledge. On the medical side, governmental and scientific society recommendations are subject to a surge of scientific literature.

Subjected to a shortage of medical equipment, Morocco enters "war" and is obliged to confine its population. It is in this context, where work overload and lack of means are combined, that the medical, administrative and non-medical personnel organize themselves to face this pandemic. Specific units were quickly created and their mode of operation was developed in an emergency. The pathway of hospitalized people includes the emergency services, the hospitalization unit, the intensive care unit and the medical resuscitation. Thus, in this moment of extreme tension, and beyond the uncertainties concerning the therapeutic management, the humanistic values of the caregivers were strongly solicited.^{6,7} Among the questions raised, the announcement of the diagnosis of COVID-19 was asked.

However, the announcement of diseases was not always appropriate. It was at the end of the 1990s, through various changes in the social, legal and jurisprudential context, that the information given to the patient and the question of communicating the diagnosis became unavoidable issues in the questioning of medical practices. Although its benefits are now recognized⁸, the diagnostic announcement of the Corona virus 2019 (COVID-19) remains a complex practice, whose modes of contamination, evolution and prognosis remain subject to questioning, hence the difficulty of announcing this diagnosis to affected patients.

The interest of this work is to better identify the current practice and the difficulties encountered during the announcement of the diagnosis, in particular of Covid-19, as well as to evaluate the general reaction of patients to the announcement of this diagnosis. This will be done by assessing the way in which physicians perceive the problem of announcing the diagnosis of Covid-19. Then to understand the state of practice of the diagnostic announcement of this disease and to evaluate the reaction of the patients to the announcement of this diagnosis.

Materials and Methods:-

This is a descriptive and analytical cross-sectional study, developed from a questionnaire exploring the current practice and difficulties encountered during the diagnostic announcement of Covid-19 as well as the general reaction of patients to the announcement of this diagnosis. This questionnaire includes 22 questions and is divided into 5 parts:

- Sociodemographic and professional characteristics of the participants: age, gender, city of practice, function, specialty (resident or specialist), institution,
- Participants' opinions regarding training in the diagnostic announcement of Covid-19,
- Physicians' representations and practices regarding this announcement,
- Information given to the Covid+ patient,
- Reaction of the Covid+ patient to the announcement of the diagnosis,

We mentioned at the beginning of the questionnaire the respect of anonymity and confidentiality of the information provided and therefore we obtained the consent of all participants. The questionnaire was dedicated to primary care physicians in the face of the Covid-19 pandemic, regardless of their status (general practitioner, specialist, resident physician, internist) practicing in the public or private sector in the different regions of the kingdom who had already announced the diagnosis of Covid-19 to a patient and agreed to participate in the study. Physicians working in Covid services but not responsible for diagnostic announcement and those who refused to participate in the study were excluded.

This study was conducted over a period from April 29, 2020 to June 02, 2020. We used a direct contact mode with sending the questionnaire to the respondents via Facebook, Whatsapp and E-mail and we collected 114 responses.

The statistical study was carried out using SPSS 24.00 software. First, we conducted a quantitative analysis of all the variables in the study. The values are presented in frequency and percentage in the tables. In a second step, we performed a bi-variate analysis (correlations between two variables) in two steps: A search for correlations between the sociodemographic variables; A search for correlations between the sociodemographic variables and the questions on representations. The categorical variables were tested against each other with a Chi-2 test. The degree of significance (p-value) will always be expressed in brackets (p-value = ...). The threshold of significance retained is at 0.05.

Results:-

Descriptive statistics:

For sociodemographic and professional characteristics of participants:

The median age of the participants is 30 +/- 8.376 years. 69.1% are women while 30.9% are men. 38.9% are resident physicians, 31% are general practitioners and 23% are specialists.

For the most requested specialties in our study, we find medical specialties in 74.3% then come the surgical specialties.

69 (61.1%) of these doctors work in the region of Rabat - Salé - Kenitra while the others are spread over the other regions of the kingdom.

University hospitals are the most represented establishments with 53 doctors practicing there, followed by hospitals with 27 doctors and finally private clinics.

Table 1:- Socio-demographic and professional characteristics of respondents.

Socio-demographic characteristics	Percentage	
Median age	30 +/- 8.376	
Gender	Female	69.1 %
	Male	30.9 %
Profession	Resident Physician	38.9 %
	General practitioner	31 %
	Specialist	23 %
	Internal physician	7.1 %
Specialty	Medical	74.3 %
	Surgical	25.7 %
Region	Rabat-Sale-Kenitra	61.1 %
	Others	38.9 %
Establishment	University hospital	46.5 %
	CHP or CHR	23.7 %
	Private clinics	53.5 %

For physicians' opinions on Covid-19 diagnostic announcement training: They were asked four questions: The first was whether they have ever received any training or theoretical course on Covid-19 diagnostic announcement: 69% answered no while 31% answered yes. The second question was about their knowledge of the laws on medical information and their content regarding the regulation of diagnostic announcement: 72.6% answered no and only 27.4% answered yes. The third question was about their attitudes towards a specific training on diagnostic announcement of Covid-19: 85% were in favor while 15% were against. And the last question evaluated the importance that each of them gives to the legal, ethical and therapeutic aspects in their practice of diagnostic announcement to patients: 88% of them gave more importance to the therapeutic aspect, 89% to the ethical aspect and 70% rather to the legal aspect.

For the representations and practices of the physicians concerning the diagnostic announcement of Covid-19: they were asked five questions: The first one was about the necessity of the diagnostic announcement as soon as the diagnosis was confirmed: for 94.7% it was necessary to announce the diagnosis as soon as it was confirmed. The second was about their feelings before announcing the diagnosis: 90% felt apprehensive while 10% never felt apprehensive. The third question was related to the terms used to announce the diagnosis: 49.6% told their patients that they were infected with the virus and 50.4% told them that they were Covid positive. As for the fourth question, it evaluated the context in which the diagnostic announcement is made: 65.5% do it after the first test, 15.9% after the second, 10.6% even in case of suspicion, 1.8% when the patient asks for information and 6.9% do it when the treatment is introduced. And for the last one it concerns the announcement of the diagnosis to the families of the Covid+ patients: 61.1% of the participants talk about the diagnosis to the families while 38.9% do not.

For the information given to the Covid+ patient: During the diagnostic announcement, the participants provide the patients with clinical, semiological and therapeutic information, rather than information concerning epidemiology,

etiopathogeny or prognosis. 88.5% of the participants explain the symptoms targeted by the treatment to their patients, while 11.5% do not. Regarding the side effects of the treatment: 85% discuss them with their patients and 15% do not. For 70.8% of the physicians, the level of information given to their patients is sufficient.

The last section evaluates the reaction of Covid + patients to the announcement of the diagnosis according to their treating physicians: According to the participants, the reaction of the patients at the announcement of the diagnosis of Covid-19: 20% of the patients were shocked and surprised, having had concern. For some, they had a reaction of denial. Others had a reaction of positive appropriation (40.9%) and others rather a dramatization or sadness with sometimes guilt (16.4%). 2.7% of the physicians sometimes had recourse to a psychiatrist to announce this diagnosis. For 56.6% of the participants, announcing to patients that they are Covid+ improved the therapeutic alliance, while for 38.9% it had no influence on the therapeutic alliance.

Analytical statistics:

In the analytical study we performed a bivariate analysis correlating the different sociodemographic and professional variables in relation to the different questions asked. The number of women who had received theoretical training in the diagnosis of Covid-19 was greater than the number of men and this correlation was statically significant ($p:0.034$). Physicians practicing in the Rabat-Salé-Kénitra region are the most likely to have received training or a theoretical course on the announcement of this diagnosis, but this difference is not statically significant. The same is true for general practitioners, who represent 40% of the physicians who have received such training. Doctors practising a medical specialty in university hospitals are also the most likely to have received this training.

Table 2:- Correlations between socio-professional variables and representations.

		Have you received any training or education on announcing the diagnosis of covid-19?		P-value
		No	Yes	
Gender	female	58 (74.4%)	19 (54.3%)	0.034
	male	20 (25.6%)	16 (45.3%)	
Region	Rabat-Salé-Kénitra	47 (60.3%)	22 (62.9%)	0.793
	Others	31 (39.7%)	13 (37.1%)	
Profession	General practitioner	21 (26.9%)	14 (40%)	0.360
	Internal physician	5 (6.4%)	3 (8.6%)	
	Resident Physician	31 (39.7%)	13 (37.1%)	
	Specialist	21 (26.9%)	5 (14.3%)	
Specialty	Medical	37 (71.2%)	15 (83.3%)	0.308
	Surgical	15 (28.8%)	3 (16.7%)	
Establishment	CHP or CHR	22 (28.2%)	8 (22.9%)	0.808
	University hospital	37 (47.4%)	16 (45.7%)	
	Private clinics	6 (7.7%)	4 (11.4%)	
	Others	13 (16.7%)	7 (20%)	

Women, doctors practicing in the Rabat-Salé-Kenitra axis, in university hospitals, especially resident doctors are the most likely to feel apprehension before announcing the diagnosis of Covid-19 and this last correlation is statistically significant ($p: 0.05$).

Table 3:- Correlations between socio-professional variables and the Frequency of apprehension before the announcement of the diagnosis.

		Do you feel apprehensive before announcing the diagnosis of Covid-19?		P-value
		No	Yes	
Gender	female	5 (45.5%)	72 (70.6%)	0.089
	male	6 (54.5%)	30 (29.4%)	
Region	Rabat-Salé-Kénitra	7 (63.6%)	62 (60.8%)	0.854

	Others	4 (36.4%)	40 (39.2%)	
Profession	General practitioner	2 (18.2%)	33 (32.4%)	0.05
	Internal physician	2 (18.2%)	6 (5.9%)	
	Resident Physician	7(63.6%)	37 (36.3%)	
	Specialist	0	26 (25.5%)	
Specialty	Medical	5 (83.3%)	47 (73.4%)	0.596
	Surgical	1 (16.7%)	17 (26.6%)	
Establishment	CHP or CHR	2 (18.2%)	28 (27.5%)	0.669
	University hospital	7 (63.6%)	46 (45.1%)	
	Private clinics	1 (9.1%)	9 (8.8%)	
	Others	1 (9.1%)	19 (18.6%)	

Women, resident physicians, physicians practicing in UHCs, and those practicing a medical specialty were most supportive of receiving specific training on Covid-19 diagnostic announcement, but these differences were not statically significant.

Table 4:- Correlations between socio-professional variables and participants' opinion of the specific Covid-19 diagnostic announcement training:

		For a specific training on the diagnostic announcement of covid-19?		P-value
		No	Yes	
Gender	female	12 (70.6%)	65 (67.7%)	0.814
	male	5 (29.4%)	31 (32.3%)	
Region	Rabat-Salé-Kénitra	10 (58.8%)	59 (61.5%)	0.837
	Others	7 (41.2%)	37 (38.5%)	
Profession	General practitioner	4 (23.5%)	31 (32.3%)	0.379
	Internal physician	2 (11.8%)	6 (6.3%)	
	Resident Physician	9 (52.9%)	35 (36.5%)	
	Specialist	2 (11.8%)	24 (25%)	
Specialty	Medical	11 (91.7%)	41 (70.7%)	0.130
	Surgical	1 (8.3%)	17 (29.3%)	
Establishment	CHP or CHR	5 (29.4%)	25 (26%)	0.221
	University hospital	10 (58.8%)	43 (44.8%)	
	Private clinics	2 (11.8%)	8 (8.3%)	
	Others	0	20 (20.8%)	

Discussion:-

Our work is the first to our knowledge that addresses an essential point which is the practice of the diagnostic announcement of Covid-19. The diagnostic announcement is practiced within a relational framework defined by the doctor-patient relationship. Over the course of history, this framework has continued to evolve. Medicine has gradually developed around a growing scientific knowledge. Nowadays, it favors a global approach, centered on the patient, and it is therefore logical that the patient's opinion has become essential.

All of these developments have led to the creation of a new model of doctor-patient relationship called "therapeutic partnership", based on the free and informed consent of the patient and on shared decision-making.⁹ This model does, however, provide a framework for the doctor-patient relationship and for the problem of diagnosis, although its application is still subject to reflection.

Announcing a diagnosis is therefore a central stage in the medical process. It is a time of listening, information and therapeutic orientation on which the rest of the medical process will depend. Patients want a sincere and empathetic announcement, which puts physicians in a situation where communication and relationships are fundamental.^{10, 11} However, primary care physicians do not seem to be trained in this issue in their practice.¹²

In a qualitative study conducted in 2013, Ferraton-Rollin et al. interviewed fifteen general practitioners about the announcement of the cancer diagnosis. Most general practitioners make the cancer announcement to their patients, with or without pathology. They know the basics of doctor-patient communication to encourage patient expression. Some physicians have a positive experience and claim their role in this announcement. Their negative experience is linked to the representations of the disease and the emotions aroused.

This survey shows a need for training for physicians in order to acquire know-how and interpersonal skills in the consultation for the announcement of such a pathology.¹³

In 2011, Dufouleur et al.¹² conducted a qualitative study with 15 French general practitioners, both interns and practicing physicians, to evaluate their practices in the announcement of bad news. The doctors questioned considered that the announcement of bad news is a "painful" experience, but positive when it goes well. For them, the skills to be acquired are theoretical (knowledge of defense mechanisms), practical (communication and listening) and human (reflections and sharing on death, suffering, the profession) to avoid frustration in the face of therapeutic failure and to allow for more appropriate care for the patient and his or her experience.

The establishment of a training program on the problem of the diagnostic announcement of Covid-19 therefore seems essential. This is particularly true since almost all the physicians surveyed (85%) said they were in favour of this type of training. The announcement of the diagnosis of Covid-19 seems to be integrated into an overall therapeutic education approach. On the other hand, many practitioners emphasized that the information process is punctual upon confirmation of the diagnosis. All of the physicians in the survey stated that they explained the symptoms targeted by the treatment to their patients.¹⁴ Concerning the types of information evoked during the announcement of the diagnosis of Covid-19, the majority of doctors declare that they provide therapeutic, clinical and semiological information as well as information on the etiopathogeny and epidemiology. Prognostic information is transmitted less frequently than clinical and therapeutic information.

A postal survey by questionnaire was carried out by Gremion in 2001, among 223 psychiatrists in the private and public sectors, in order to question them on their practices in terms of information and consent gathering with schizophrenic and depressed patients. The results extracted from the 74 questionnaires returned show that psychiatrists remain cautious about the diagnosis of schizophrenia: information

Information concerning this diagnosis is only "systematically" or "most often" given by 13.5% of practitioners. This reservation is not apparent with regard to information on treatment, which is "systematically" or "most often" provided by 90.5% of psychiatrists for schizophrenics and by 95% of them for depressed patients.¹⁵ It is likely that data on the evolution and prognosis are only partially known by the physicians. They may also be considered less useful and anxiety-provoking to discuss with the patient.

The act of informing does not seem to be motivated by legal and ethical obligations, but rather by the fact that physicians feel that they can create a therapeutic alliance with the patient.¹⁶ Despite the frequency and diversity of the information provided, about 30% of the physicians surveyed declared that they were dissatisfied with the level of information they provided to the Covid+ patient. As for the patient's feelings at the time of the announcement, they said they were shocked and surprised, and had been worried. For some, they said they had a reaction of denial. Others had a reaction of positive appropriation and others rather a dramatization or depression with sometimes guilt.¹⁷

This is consistent with the results of a 2018 study by Poyade and colleagues, a qualitative study designed to explore the experiences of patients with chronic obstructive pulmonary disease (COPD) at the time of disease announcement. Thirty-four patients participated in the study. At the time of the announcement, some patients expressed amazement combined with anxiety, while others expressed guilt and denial.¹⁸ The results presented in our study are difficult to interpret. The results presented in our study are difficult to generalize, partly because of the geographically limited nature of our recruitment of physicians, and partly because of the low response rate obtained. Practitioners are relatively ambivalent about the information to be transmitted: they recognize that it can be useful and therapeutic but stress that it is also anxiety-provoking. They remain cautious because of the uncertainty of the information concerning Covid-19 but also because of factors intrinsic to the patient related to the pathology.¹⁹ Thus, they are more reluctant to inform patients about the course and prognosis than to talk about symptoms or treatment.

We can therefore affirm that the diagnostic announcement is not simply a matter of putting the pathology into words. It includes the transmission of forward-looking information, allowing hope to be instilled and reducing the potentially traumatic effect of the announcement. There is a real concern to inform the patient before prescribing treatment, although only half of the doctors systematically inform about the side effects. The others are reluctant to do so because they fear frightening patients or encouraging them to stop treatment. This is consistent with Gremion's study¹⁵, in which only 34% of physicians systematically informed their schizophrenic patients about the side effects of medication, even before they appeared.

Our study could be completed by other studies to explore the representations and practice of physicians involved in the diagnostic announcement process as well as the experience of the patient and his or her entourage (experience, repercussions, level of information) and finally to evaluate the impact of the announcement training on practice.

Conclusion:-

Currently considered a priority in medicine, patient information poses various challenges. The evaluation of the current practice of primary care physicians in the face of Covid-19 shows that they are concerned with informing patients, even if they are reluctant to provide certain types of information, such as the evolution of the disease or certain side effects of the treatments considered worrisome. We believe that reporting and analyzing the experience of primary care physicians in announcing the diagnosis of Covid-19 is of great importance. This allows us to detect the singularity of each practitioner, each team and each structure. In order to improve the quality of information communicated. This survey seems to indicate that there is still much progress to be made in this area. Knowing that patients themselves are increasingly confronted, deliberately or not, with sources of information of unequal quality, which they receive without any specificity or explanation appropriate to their own situation, clinicians should continue to reflect on the way(s) to increase the level of information for their patients.

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