ECRONICON OPEN ACCESS

EC CARDIOLOGY
Opinion

Communication in Medicine: Part II: Medical Communication and the Relationship with the Patient

Giuseppe Gullace[1]* and Luciano Peirone[2]

[1]Consultant Cardiologist, Multimedica di Limbiate (MB), Former Director of the Dipartimento Cardiovascolare, of the Dipartimento Coordinamento delle Attività Specialistiche Territoriali and of Cardiologia Riabilitativa of Azienda Ospedaliera della Provincia di Lecco, Former Adjunct Professor of Cardiologia, University of Florence, Florence, Italy

[2]Psychotherapistm, Former Adjunct Professor of Psicologia Clinica e della Salute-Benessere, University "G. d'Annunzio" of Chieti-Pescara and University of Brescia, Brescia, Italy

***Corresponding Author:** Giuseppe Gullace, Via San Leonardo 11, 23864 Malgrate (Lecco), Italy. **E-mail:** ggullace47@gmail.com

Received: June 01, 2021; **Published:** June 26, 2021

...it seems to me that, speaking of this art (Medicine), we should say things that are understandable to the profanes...
Hippocrates

Summary

In this second part of the paper we deal with the communication in Medicine and ways of information transmission to patients, their relatives and general people, evidentiating the mechanism underlying the process, defining some modalities of communication and its psychological and social aspects and emphasizing some critical issues. Moreover, a wide report is done on the relationship with the patient and the factors that may influence it.

Communicating in medicine

..keep in mind your way of sitting, reserved, firm expression, brevity of speech, composure...
..to make my children and the children of my teacher and the students participate in the precepts and oral teachings and in every other doctrine...
..it seems to me that, speaking of this art, we should say things that are understandable to the profanes.... [1-3].

From these statements of Hippocrates we can derive the first rules of communication in Medicine: information content and language used, way of presenting oneself, of looking and gesticulating, credibility, understanding of the recipient (patient, students, public), context and field of observation (wide enough to have greater possibilities of understanding phenomena) in which communication or phenomena occur [4]. Medicine strongly depends on the communication that characterizes the relationship between doctor/nurse and patient, between the patient and his family, in the context of diagnosis, therapy and research. But Medicine is also communication among doctors, companies and the general public to whom information shall be addressed and whose level and method of transmission depend above all on the receiving target. Information, consent, silence, advice, support and accompaniment are part of the ingredients of communication together with the concept of disease and, consequently, the therapeutic goal that will influence the type of relationship between doctor and patient. whose approach will be of a technical type if the goal is the treatment of the disease, of a personal, psychological and social type if the goal is the care of the person with his illness and suffering.

Medicine is a great scientific discipline, a difficult art, a science in continuous development, complicated to manage, whose professional practice, in addition to having noble purposes, needs an adequate communication process, a high morality, technical skills, scientific knowledge and human understanding by those who practice it and, above all, respect for all its components [2,3,5,6].

From the perspective of the effects of communication, well highlighted by some AAs [7,8], the semantics and, therefore, the content of the message are decisive both with their implications in terms of "linguistic" meaning [9,10] and with their implications in terms of psychology and therefore of "existential sense". In fact, if implemented in the "bad" version (gaslighting, fake news, etc.), the semantics distorts the inter-human relationship, resulting in the abusive asymmetry between the communicating subjects, and therefore the "power gap" inherent in the "language ", with possible/probable beneficial effects for the "up" subject and disadvantageous/pathogenic effects for the "down" subject.

At this point, it is well understood how delicate and potentially ambiguous the relationship between doctor and patient is: in fact, this particular "inter-individual relationship" (which is "clinical", for which the "**klínē**" tends to put the patient in awe), while on one side it must be asymmetrical (due to a legitimate question of different levels of knowledge and operational competence), on the other side it should be symmetrical (balanced, harmonious, "democratic") precisely to guarantee mutual trust and the consequent effectiveness in communication (anamnestic, diagnostic, therapeutic, preventive).

Syntactics, semantics and pragmatics should therefore function in a coherent way: both in the general everyday life and specifically in the *helping relationship* (a fragile and powerful relationship, as well as objective and subjective, at the same time).

In turn, the relationship is doubled: in the "vertical" model (the doctor who communicates with his patient) and in the "horizontal" model (the doctor who communicates with other doctor). However, it is still a "help/support" relationship, no matter with which content: either one does clinical work to remove the evil or consultancy/research work to understand the evil, one relates in terms of exchange, of enrichment, of giving and receiving, of receiving and giving. This interactive duplicity (who relates to whom) always involves the similar form of information transmission: verticality and horizontality, "internal" and "external" perspective.

In a clinical consultation, the communication process (internal communication) unfolds along the diagnostic-therapeutic path through the collection of information (subjective data told and objective detected) and the creation of a relationship to obtain those information necessary for diagnosis and therapy and subsequently provide information necessary to the possible closure of the path [11]. It is clear that in this case the communication aims to resolve the patient's health problem and it must be aimed at obtaining all that is needed to achieve the goal; the information must be clear and understandable and the knowledge of the patient and the ability to establish an empathic relationship with him is of fundamental importance.

... it would not be possible to know Medicine for those who do not know what man is; but this is what must understand those who must properly take care of men... if the understanding of the common man is lacking and the interlocutors are not put in such a disposition, it is the reality that will be missed... [1-3].

In the external communication with the medical-scientific community, the process unfolds on specific contents, often technical, within conventions, congresses or events where the audience is made up of competent people and the aim is to exhibit and discuss not only research, innovations, new knowledges but also raise doubts and express divergences which, since discussed within this area, in themselves generate stimuli for new research [12]. In this context too, communication must follow the rules of correctness and truthfulness, of the method of presenting data, but, above all, of the correct and objective analysis and interpretation of the results. It happens, fortunately not always, that sometimes the data are presented incorrectly or the interpretation of the data is not always compliant. In these cases, the discussion among experts helps a lot to dispel doubts through the comparison of different experiences and different points of view.

Another aspect to keep in mind is the scientific-cultural presentation in which the speaker's expository ability and his ability to keep the audience's interest alive play a very important role in achieving the goal: that is, to enrich knowledges or clarify the doubts of the listener, not to do an exposition as an end in itself. In these cases, communicating also means improving something in the listener, giving emotions, inducing the birth of ideas, contributing to the definition of paths and research in situations of slow and complicated progression; essentially providing an important cultural enrichment of updating and training one's profession.

In communicating to the general public, the aspects are much more delicate as the target is not competent by definition and, therefore, the information transferred should be unique, clear, simple, easily understandable and separate and distinct from personal opinions with the dual purpose to provide knowledge and at the same time not to cause disorientation, confusion, false certainty or unjustified alarmism. Communication in Medicine is a very serious and delicate matter; people's interest in their own health is always high as well as attention to medical topics, especially when the topics covered concern public health. It is in these cases that people feel the need to have certainties, as far as possible, with certain (or uncertain if they are), non-illusory data, clear and non-contradictory presentation, with a clear distinction between what science says and what is personal experience and, above all, one's opinion. The respect for ethics, correctness and available truthfulness are the prerequisites for both the credibility of the speaker or writer and the usefulness of the information content and consequently the benefit of the community [12]. On the other hand, it is important to affirm the principle that, in our opinion, medical science is not the topic of discussion by all but the health professionals themselves; medical science cannot be used freely by politicians, intellectuals, media or any other, without the qualified and binding support of experts and competent in the field. The disputes should be made by the scientists and researchers themselves; and this is because, in our opinion, discussions and disputes, obviously technical and specific, make sense and lead to improvement only if addressed by the competent and skilled people in the field and within the scientific community.

Another critical element is highlighted internally by mass communication. In an era like the contemporary one, where everything seems or even is globalized, the *information macrosystem* seems to have reached its peak of effectiveness, but also to its undeniable criticality. A lot of information, too much information, therefore a lot of confusion. Not only are there a lot of "data" (it is no coincidence that in the scientific and statistical fields there is more and more talk of the importance of "big data"), but the daily overexposure of the common individual to the massive "avalanche" of information makes his mind little capable of discernment, or even makes his mind rejecting and closed due to the so-called "saturation effect". Much of this takes place in a mass situation that is already confusing in itself (like a Tower of Babel) with a cognitive fragility of the individual psyche often "drowned" in the masses, moreover when gigantic dangers rage. Faced with the anxieties or even anguish aroused by wars, terrorism, political uncertainties, economic crises, pandemic contagion risks and so on, the "effects" of a communication that is already "shaky" in itself become unpredictable and unmanageable, for which fragile boundaries between truth and falsehood are severely tested, or overwhelmed and destroyed.

This precariousness of communication is also valid, and even more so, for "sensitive data with bio-medical content": for the profanes, for the laymen (but also for those who are skilled). The risk of not understanding anything anymore is very strong. Furthermore, for many individuals, in addition to the "induced disconcerting ignorance", the unpleasant fact of having to pay in terms of shock, trauma, post-traumatic stress and various psychopathological syndromes also happens.

In time of exasperated crises, there are many perceptual-cognitive distortions and their consequences in the "information trajectory". The paradigmatic example is certainly the one we are witnessing every day (and doctors and psychologists themselves have the pulse of the situation through the reactions of their patients). All of the above is enhanced by the contemporary Covid-19 pandemic situation: the sudden advent of an invisible and intangible "enemy" [13] that physically and psychologically expands in a global civilization, not infrequently produces confusion in what is communicated and what is understood, generating a "second virus" [14].

To counteract both false news and distortions made on real news, the psychology of communication [15] clearly indicates what to do: information must be timely, simple, direct, possibly visual. It is necessary to communicate "well" about a pandemic, which, precisely as it "disrupts" the emotional and mood balances of the human person, should instead be managed with coldness, logic and rationality, highlighting the undeniable difference between fact and value judgments.

After having hinted (of course: only hinted at) the difficulties of communication in the macro-social field with regard to Medicine and, inevitably, Psychology, we now return to the interpersonal relationship, where things are, fortunately more direct, more immediate, more concrete and, certainly, more manageable. We leave the relationship/communication "from one or a few to many" to resume the relationship/ communication "from one to one".

The doctor-patient relationship

In the Hippocratic conception, the Doctor - Patient relationship was of a paternalistic type and was born as a friendship between unequal persons, an unbalanced and asymmetrical relationship between the doctor's knowledge and power and the patient's submission and dependence, both in search of an alliance to overcome the disease. The patient represented the fragile person, the person to be known as a whole in order to understand the disease and be able to cure it; while the doctor represented the competent person by training, culture, experience, the one who tried to know the person to be treated to free him from suffering and disease (*... it is more important to know what kind of person has a disease, than what kind of disease a person has...*) [2,3]. Both members of the triad of sick, illness, doctor (*... the doctor is the minister of art; the sick person together with the doctor should oppose the evil...*) [2,3], both linked by a relationship of alliance that aims to conduct dialogue and mutual adaptation of one to the needs of the other with the aim of recovering or maintaining health, through scientific, professional and human knowledge [16]. In the Doctor - Patient relationship, topics such as the anamnestic clinical interview with which the patient tells the story of his illness, his subjective disorders, his emotions and his psychological defense, his objective data detected by the doctor are included; but also the information that the doctor gives to the patient, health education and counseling (*... I think that the best doctor is the one who has the ability to tell patients, on the basis of his knowledge, the current situation, what has happened first and what will happen in the future...*) [17], are included.

In modern Medicine the Doctor - Patient relationship is defined as the relationship in which contracting parties, independent, equal and with the same negotiating power, freely sign a pact. The important relevance is given by the doctor's duty to adequately inform the patient and obtain her consent, and the patient's right to decide which medical treatment to undergo or not (informed consent). Today, the Doctor - Patient relationship is that particular relationship that is established between a doctor (or, using a wider expression, a health professional) and a patient starting from a state of illness of the latter and which is characterized by specific duties and moral and juridical rights. Generally, this relationship takes place within a public or private health context, and only in particular cases in a home context (for example in end-of-life situations that require the presence of palliative care at home) [18].

The Doctor - Patient relationship includes two main components or partners who are equal but with different skills and roles; despite this, the relationship continues to be asymmetrical, the patient's role is little emphasized and he, while remaining the weak and vulnerable part, continues to remain dependent on the competence and power of the doctor.

However, communication is changing since the roles of doctor and patient are changing, as well as the means, methods of transmitting information and the context. The patient, while continuing to be the fragile person, in need of help to fight evil, is a more informed person than in the past, through the mass media, social networks, medical applications, more aware of the disease, of the dysfunction of the organs and apparatuses and therapies and, despite this, he needs to communicate, tell and receive answers and attention. In many cases patients trust their doctor's judgment but want a second opinion for important treatments and decisions and seek them on their own initiative, they want to know more about their condition from sources they consider more reliable and independent, they think that to have full access to their medical records without costs or limitations is their right.

Keckley in his paper reports that patients think their doctors should take more advantage of web technologies to enable online booking, teleconsultation, secure exchange of information and more and want their doctors to recommend any alternative therapies and lifestyle interventions, and telling them in advance how much a procedure or consultation will cost. Everyone wants to know the curriculum vitae of their doctor, how many patients they are treating and the results obtained, that they disclose any conflicts of interest, or business relationships that may affect their professionalism and that they treat them with respect and give them more attention and better listening. Everyone thinks that in their professional practice, doctors should provide a better, more suitable, appropriate, affordable, accessible and person-centered service. No wonder if half of all patients say they are willing to change, even though most patients think doctors are more focused on their own needs than their own [19].

The reality shows more and more frequently the provision of hasty medical examinations and inadequate clinical assessments, the consequence of which is represented by the reduced possibility of establishing a relationship with patients; this leaves patients and doctors unsatisfied and the quality of counseling is low [20]. More reliance is placed on numbers and tests, rather than on how the patient feels and on a careful evaluation of the reports.

Today, complete, correct and understandable communication is a primary need for the doctor, for the patient/person and for the entire organization of the national health system. Every doctor and, more generally, every healthcare worker, therefore, must learn to communicate effectively during his medical training and must continually refine this ability during his professional career. The courtesy level of both the administrative and clinical staff during access and stay in the hospital/office give rise to the feeling that patients are important and respected, as well as the reasonable waiting time and attention to personal comfort; the availability of nurses and doctors contributes to a sense of security. In this, the patient-centered organizational culture plays an important role [21]. The Doctor - Patient relationship is central and important in medical practice, especially in critical situations in which patients are more vulnerable as they experience a greater dependence on the doctor's competence, ability and availability [21]. A strong Doctor - Patient relationship is associated with a higher physician rating and better patient outcomes.

The doctor has become a healthcare professional, very attached to both diagnostic and management technology, supported by more sophisticated communication tools (such as smartphones, medical applications, computers and related networks), more focused on managing the disease than on the patient with his illness, pressed by administrative-bureaucratic obligations that take away important time from the clinical, diagnostic and therapeutic management of the patient and, above all, from the relationship with him. "*Medicine as a science, as an art and as a human encounter during the visit, has become complex; the practice of it requires the combination of interest in clinical medicine and the patient with that of basic science and history, to which it does not hurt to add a little idealism, commitment and professionalism*" [22]. The alliance between doctor and patient has evolved towards a complex and integrated organization in a System where a provider (of health services and assistance) governs the demand (the patient's need for health/care) and organizes the offer (satisfaction of the health needs). The organization is also a factor influencing communication as it can lead to inefficiencies and consequently inefficiencies from which the derived difficulties of speaking adequately and the increase in dissatisfaction of all health professionals, including patients.

The typical empathic relationship of the old family doctor in a collected community was based on the knowledge of the patient and his entire family, but also on the patient's knowledge of the doctor. It was easier to take into account the factors that usually influence this relationship: the doctor's character, his habits, his way of speaking, his availability, his strengths and weaknesses, his authority, his attention to problems of the person, etc., and then the character of the patient, his economic and social conditions of life, his eating uses, his needs, etc.; the content of the information was simple, clear, authoritative and, therefore, effective as well as the way of communicating.

Today this relationship is less frequent and, in many cases, it is disturbed in all its components. If we consider the relationship as the participation of two subjects who interact with each other, today the Doctor - Patient relationship becomes an encounter between two people who at the beginning (and also at each doctor change) are unknown and, therefore, feel at discomfort and only later and progres-

sively, as they learn to know each other, will they begin to feel at ease, so the degree of intimacy and empathy will be very variable; the possibility that the patient feels in a safe and secure environment will depend on this, an important key to inducing the patient to trust the doctor and to confide in him highly private and personal problems [23]. But even if this occurs, it must, however, be kept in mind that the relationship always remains asymmetrical as the patient, who continues to remain the weak and vulnerable party, although more informed than in the past, depends on competence, power and also on the administrative role of the doctor [18].

Doctors are often not prepared for effective communication with patients and relatives and this is one of the main causes of complaints and disputes; the conduct of the relationship is such as to preclude the possibility of questions and the understanding of the answers, such as to generate interruptions and inadequate attention to the problems of the person and the world around him; knowing the patient's world, his ability to understand and his willingness to change are important for the diagnostic-therapeutic process. The interviews are often approximate, sometimes incomprehensible or fragmented and the information is inadequate and insufficient; the communication is often aimed at fulfilling legal obligations. Informed consent is not always applied correctly.

The factors that influence the relationship with the patient include the cure of the disease rather than of the person with his disease, the poor relationship of trust, the reversal of roles that can often occur (when the patient asks the doctor which tests he wants to undergo or drugs to take), lack of empathy, bureaucratic pressures and procedural aspects, difficult communication due to the language used, technology (performance) instead of the clinic. In many cases, the inadequate organization, the request for services out of the clinical context, inappropriate and repetitive without any defined diagnostic path, contribute to influencing the communication between doctor and patient, the marketing of diagnostic exams that leads patients to consider them, especially when they are specialist examinations, such as commercial products whose content (report) is the key to their well-being or discomfort, rather than a tool that provides the doctor with the information necessary to frame the patient's health problem and solve it (for example: for many it becomes more important to know if the electrocardiogram is normal or not than the clinical conditions or suggestions for lifestyle correction). All these factors lead the doctor to know the patient incompletely, to use little counseling and to take charge of the patient's pathway in an uncomplete way.

From the questionnaire survey [24] carried out on a sample population residing in Belgium, Portugal, Spain and Italy in the period March-May 2010, the majority of patients reported little or no communication, with a doctor increasingly interested to the use of technology and drug prescription. Doctors tend to underestimate patients' need for information by not giving due importance to the process and methods of information transfer. A sub-optimal exchange of information also takes place between the General Practitioner and the Specialist, while the exchange among Specialists is better but in the hospital setting. These exchanges of information are very important for a better and correct management of the patient and his/her diagnostic-therapeutic path; equally important are the correct interpretation of the information and their correct use.

Today, more than in the past, the transmission of information is related to the characteristics of patients (sex, education, social class, needs, need for information and prognosis), of doctors (background, social class, income, political ideology, level of attention and perception of the needs of patients) and the working situation (number of patients seen per day, complexity of the problems, type of patients, duration of knowledge, etc.). It should not be forgotten that the results of medical treatment as well as his satisfaction and compliance are associated with the doctor's non-verbal communication skills and his presentation [25]; moreover, an exhaustive information about the therapy done by a doctor properly trained to communicate in an adequate way is highly correlated with a better adherence of the patient to the treatments [26].

Prescribing a series of tests and arriving at a potential diagnosis means little if the information is not correctly communicated. Patients and their relatives understand well the situation in which doctors operate, the difficulties and the fact that recovery is not always guaranteed; they do not know about Medicine and cannot judge the professional competence of doctors, even if in recent time there are more and more complaints from people who believe they know the problem better than the doctor just because they have taken the information from the mass media or from the various Web sites. Usually, they want and need to be informed and judge the doctor on the basis of his

behavior, how he has placed himself towards them and the information that he has promptly or not provided. The main causes of legal disputes are due to a bad relationship, with the patient or relatives, and little or no information provided. The alliance with doctor, patient and even relatives has its main assumptions on clear, correct and timely communication, with frequent updates and involvement of all components in the diagnosis, treatment and course process but, above all, on the decisions to be made.

An emerging and very important aspect in medical practice is the use of new means of communication such as smartphones, websites, social media. The doctor will have to learn to use social media with common sense and to fight fake news in Medicine with a rigorous and credible behavior, be able to regain responsibility for his work, the correctness of his communication, the accuracy, as far as possible, of the information he gives, all aimed to the benefit of the patient but also of the community.

The same growing problem is the use by patients of social media and medical and paramedicine websites for health problems and the spread of fake news. The new communication and information technologies offer advantages to the patients to promote public and individual health and to the doctors for professional improvement if used with wisdom, prudence, common sense and critical sense; but they can also produce potentially harmful effects, which can influence the relationship with the patient [27,28]. In a meeting organized by the IBSA Foundation for Scientific Research in Rome on 26/1/2017, the data of a presented survey showed that 88% of Italians (93% of women, 96% of graduates and only 24% of those who have not passed the elementary school certificate) consult the web for information on health and 44% think that this is not risky; in particular the over 65s are more wary than middle-aged adults towards information obtained from the web, while half of the interviewees do not seem to care about the so-called fake news. Another fact is that 44% of interviewees do little research on the sources of information, stopping at the first results of the page. The meeting produced in collaboration with the Istituto Superiore di Sanità and the Associations of Patients a Decalogue on health literacy in which the 10 points to pay attention to are reported to defend themselves from unreliable informers such as forums or blogs that usually do not have scientific reliability [29].

Since fake news today represent a serious problem that can negatively affect not only the Doctor - Patient relationship but also the entire health system, it is necessary to continually test the truthfulness of the information obtained from the web. In doing this, it is necessary to pay close attention to the origin of the information (those coming from hospitals and universities, from scientific societies and from national and international health organizations are the most reliable), to the dates (each news published should have the date to know if it is current or taken from the past and no longer current), to confirmations (by comparing the same news with other sites and other sources, such as your doctor), to contents (for example, be wary of miraculous cures, do not consider them without consulting your doctor or other expert), etc. It is advisable to always have points of reference and comparison, always use the personal critical sense by evaluating how many possibilities an information out of the ordinary has to be real, try to understand what is behind a revolutionary news through doubts and questions to ask for (for example, e-mails are increasingly frequent that arrive asking to send a few thousand euros or dollars for the processing of practices in order to be able to withdraw millionaire bequests; or the promotion of drugs and supplements or announcements of miraculous therapeutic techniques without having any scientific basis). Yet, faced with these “oddities” easily identifiable as false or not very credible, many people fall for it, influenced by the messages. With a little more attention and critical sense it is possible to learn to distinguish true information from false information, expert professionals from “smoke sellers” and “barkers”, from deniers who as such base their thesis on nothing scientifically proven. Adequate and timely information will help to make the patient more conscious, attentive and also satisfied, and the use of magicians and sorcerers, in continuous growth in terms of number of people and turnover, will probably be reduced.

In front of the patient who is enriched with information on his own health from the various sources available today, experiencing a different relationship, more empathic, satisfying and clear but also with a more appropriate and suitable dialogue to the characteristics of the individual case, would be not only a necessity but also useful and beneficial. Doctors are increasingly called to measure themselves against emerging phenomena and, therefore, protecting medical science and their profession from non-respect for their professionalism and the spread of fake news in their daily practice, at any level, becomes a constant commitment. The more the doctor will be able to

regain possession of his profession and communicate adequately with the patient, constantly assuming the responsibility of managing his diagnostic-therapeutic path, the more the relationship will become strong, the satisfaction will increase and the fight against fake news will become easy.

Final Remarks

Medicine is scientific and clinical which means science (organized knowledge of all circumstances relating to human health) and art (ability to apply knowledge to the treatment of human disease) [30]; but also management of the patient and his/her diagnostic and therapeutic path and appropriate use of technology. Due to this reason, communication in Medicine takes on particular connotations. The disease is a biological, psychic, social and spiritual manifestation that further destabilizes the psycho-behavioral balance, in the vast majority of cases already destabilized by the chronic stress linked to the individual experience that modifies lifestyle and behavior, and makes the person fragile and leads her to reflect on values, affects and existence [31-34]. The sick person is a person worried for his life, for his business, for his family; once the diagnosis is made he wants to know what his future is, so he is more interested in the prognosis, the chances of survival and above all, the chances of not having pain. Fear of death is an ever-present condition in the human being. All this determines emotional and relational instability of varying degrees depending on the pathology and clinical condition.

Communicating in Medicine cannot fail to consider the patient as a person as a whole and his psycho-behavioral situation, which influence his level of attention and his ability to receive messages. Communication in Medicine must, therefore, take into account the way the message is transmitted to the patient, his ability to receive and the possible reaction considering that he is dealing with a person with emotional instability, disoriented and emotionally disturbed.

Bibliography

1. Hippocrates of Cos. "The Oath". Loeb Classic Library 147 (1923): 298-299.
2. Hippocrates D. "In: Jones WHS, translator". Hippocrates. Volume II. Cambridge, MA: Harvard University Press (1923): 297.
3. Ippocrate - Sull'arte, in Opere 461.
4. Watzlawick P. "La realtà della realtà". Casa Editrice Astrolabio. Ubaldini Editore, Roma (1976): 7.
5. Gullace G., *et al*. "Hippocrates' Dream. What has Hippocratic Revolution Left in Modern Medicine". *Journal of Cardiology and Cardiovascular Therapy* 13.2 (2019): 1-14.
6. Harrison TR. "Introduction, In Principles of Internal Medicine". First edition, The Bleckiston Company, Philadelphia (1950): 1.
7. Morris Ch. "Segni, linguaggio e comportamento". Longanesi, Milano 1963 (1946).
8. Watzlawick P., *et al*. "Pragmatica della comunicazione umana". Casa Editrice Astrolabio Ubaldini Editore, Roma (1971).
9. Eco U. "Trattato di semiotica generale". Bompiani, Milano (1975).
10. Ogden CK and Richards IA. "Il significato del significato: studio dell'influsso del linguaggio sul pensiero e della scienza del simbolismo". Il Saggiatore, Milano 1966 (1923).
11. Victor M. "Cultural competence and holistic practice. Implications for nursing education, practice, and research". *Holistic Nursing Practice* 23 (2009): 153-157.
12. Gullace G and Catena G. "The communication at the time of Covid-19 in Italy". *EC Cardiology* 7.7 (2020): 4-7.
13. Peirone L. "Nuovo coronavirus e resilienza. Strategie contro un nemico invisibile". Anthropos, Torino (2020).

14. Sala M and Scaglioni M. "L'altro virus. Comunicazione e disinformazione al tempo del COVID-19". *In roman* (2020).

15. Graziato I. "COVID-19: come comunicare durante un'emergenza sanitaria". In L. Peirone (Ed.), Nuovo coronavirus e resilienza. Strategie contro un nemico invisibile. Anthropos, Torino (2020): 546-567.

16. Aristotele. Opere, Roma-Bari, Italy Hippocrates (1978) 'Prognosis' in Hippocratic writings. In Lloyd GER edition. Penguin classics. London: Penguin Books (1973): 170-185.

17. Hippocrates 'Prognosis' in Hippocratic writings. In Lloyd GER ed. Penguin classics. London: Penguin Books (1978): 170-185.

18. Consulta di Bioetica.

19. Keckley P. "The Decline and Fall of the Doctor-Patient Relationship". The health care blog (2017).

20. Park JE. "The Impact of a National Healthcare System on the Doctor-Patient Relationship in Neurology". *Journal of Clinical Neurology* 14.3 (2018): 430-431.

21. Dorr Goold S and Lipkin M Jr. "The Doctor-Patient Relationship Challenges, Opportunities, and Strategies". *Journal of General Internal Medicine* 14.1 (1999): S26-S33.

22. Nilsson PM. "European perspectives in Cardiology". *Circulation* (2010): 7-10.

23. Smith JM. "Personal Privacy: Cultural Concerns". *International Encyclopedia of the Social and Behavioral Sciences* (2001): 11250-11254.

24. Test Salute ottobre (2010): 88.

25. Stewart MA. "Effective physician-patient communication and health outcomes: a review". *Canadian Medical Association Journal* 152.9 (1995): 1423-1433.

26. Zolnierek KB and Dimatteo MR. "Physician communication and patient adherence to treatment: a meta-analysis". *Medical Care* 47.8 (2009): 826-834.

27. Smailhodzic E., *et al*. "Social media use in healthcare: A systematic review of effects on patients and on their relationship with healthcare professionals". *BMC Health Services Research* 16: 442 (2016).

28. Bernhardt M., *et al*. "A social media primer for professionals: digital do's and don'ts". *Health Promotion Practice* 15.2 (2014): 168-172.

29. IBSA Foundation for Scientific Research: E- Health: Tra bufale e verità: Le Due Facce Della Salute In Rete, Roma (2017).

30. Aristotele, Opere, Roma-Bari (1973).

31. Gullace G and Khalaf H. "Preclinical diagnosis and risk assessment of atherosclerosis – At birth? At event? When is best?" *European Cardiology* 7.3 (2011): 162-164.

32. Gullace G. "Behavioral cardiovascular risk factors: changing perspective to approach the problem". *Journal of Cardiology and Cardiovascular Therapy* 2.1 (2016): 1-5.

33. Gullace G and De Prospero M. "Stress e fattori di rischio cardiovascolare comportamentali". SISMED. Cuore (2021).

34. Gullace G., *et al*. "Stress Dresses Woman: Sex and Gender Differences". *EC Neurology* 12.11 (2020): 01-14.

Volume 8 Issue 7 July 2021