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The qualitative method for a humanisation of research

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Huge progress in scientific research, added to vast investments, have allowed to develop vaccines against the virus responsible for Sars-Cov-2 in times unimaginable, until recently (1). The use of these vaccines has documented their high efficacy and very low risk of adverse events. Undergoing vaccination campaigns around the world are changing the history of the COVID-19 pandemic. Never before has scientific research been a topic of widespread interest as in this period. Naturally, scientific journals talk about it, but also opinion papers, television programs and ordinary people. The discussion of the theme also in the world of "inexpert" observers has led to diversified reactions. Despite vaccination success, many citizens refuse to get vaccinated. Some highly effective vaccines (2) are called into question when very rare adverse events occur. Although they do not change the very favorable balance between benefits and harm, they do have a huge impact on public opinion.

Once again the coronavirus teaches us something: the great successes of scientific research are not always matched by great public opinion. Why does this happen? We can find a possible answer to this question in the opinion often supported by this journal: scientists are mainly dedicated to quantitative research that provides mathematically reliable results. Quantitative research, however, generally deals with the community, but not with single individuals. Quantitative research uses statistics and for statistics all individuals are equal, they constitute numbers and the validity or not of a treatment is based on the comparison between these numbers. But in reality, individuals are not at all equal, they differ from each other not only in sex and age, but also in culture, social condition, economic condition, character. Qualitative research takes into account these

aspects (3,4). Historically, especially in Italy, the qualitative method has been used by the human and social sciences: sociology, anthropology, psychology, pedagogy.

Recently, however, especially within Anglo-Saxon countries, it has been understood that objective data itself is colorless and that its correct evaluation involves the implications it has on users. A clinical trial, even if controlled, randomized and multi-centric, with the recruitment of a large number of patients can document that a certain drug is effective for the prevention of a specific pathology if it is taken by people at high risk for a period of 6 months. That drug is then prescribed to patients at risk with an indication to take it for six months. However, it happens that only 50% of patients comply with those indications and stop taking the drug for only two or three months. To give another example, we can say with certainty that hand washing by healthcare professionals reduces the risk of nosocomial infections. The literature is overflowing with quantitative results that support this. However, we can affirm with equal certainty that this observation does not produce the expected result. Many professionals do not resort to adequate hand washing and nosocomial infections are not reduced. Through qualitative research methods we can understand people's perceptions and why professionals do not wash their hands. Health science has understood that quantitative research and qualitative research represent two complementary methods that evaluate both the mathematical data and its implications. We can imagine scientific truth as a three-legged stool supported by the analysis of literature, by the quantitative and qualitative method. The content of this journal documents how health professionals today make more use of qualitative research methods than in the past.

To reach the levels of the Anglo-Saxon experience, however, it is necessary to train these professionals with research methodology paths specifically aimed at the qualitative method. Although even journals of high scientific value and impact document how the association of quantitative methods and qualitative methods allow research to provide results that favor the improvement of outcomes (5), there is still a lot of resistance, especially from medical researchers and biologists, to make use of it and most of the traditional training courses such as degree courses, medical specialization courses and doctoral courses of the Departments of Medicine, do not teach methods of qualitative research. This is not the case at the University of Parma where, for example, the research doctorate in Translational Medical and Surgical Sciences offers ample space for teaching the qualitative method and some doctoral students specifically use it, where a first level Master's degree has been implemented on qualitative research methods and where students of numerous masters for health professions are invited to use these methods in their project works. It is no coincidence that most of the articles published in this issue of the journal report qualitative methods.

Another extremely positive aspect of the use of qualitative methods in scientific research, especially in the field of health professions, is to promote interdisciplinarity and inter-professionalism in the conduct of studies. The contribution within the same study case of the skills and points of view of professionals educated to different systems of thought, such as nurses, psychologists, sociologists, anthropologists, educators, increases the quality of the interpretation of the results, allows to analyze the relapses and makes translationality easier from the laboratory to the patient's bed, to the community. The professionals who collaborate in research transmit different skills to each other and fill their toolbox with additional tools. Topics such as communication, relationships, spirituality are becoming more easily part of the cultural and scientific background of health professionals, providing more answers adapted to the requests of users who are increasingly focused on these aspects. We talk more and more often about Medical Humanities (6) and the synergistic use of qualitative and quantitative research methods allows us to obtain increasingly important and appreciated

results in this field by the main scientific journals (7).

The interdisciplinary approach has always been supported by this journal. A very interesting example of collaboration between professionals with different skills is that of "matriciamento" (matrix based strategies) an experimental system used by the Brazilian health system and of which one of the authors of this editorial had experience. The health team of the "Casa della Salute" (house of health) is made up of professionals from different disciplines. Taking charge is carried out by one of them, regardless of their qualification. If the skills at their disposal are not sufficient to meet the patient's needs, the professional calls the colleague who presumably has those skills. The latter does not replace the first professional but transmits his/her skills to him/her by explaining what needs to be done and why. In this way, the professional who welcomed the patient continues to provide for him/her, gaining experience after having enriched his/her own cultural background.

The topics reported in the numerous articles published here are very variegated, some deal with the consequences of the COVID-19 pandemic for operators and the perception that citizens have had of them, many others deal with the different activities of nurses, essential for a good performance of the health organization. Some articles analyze evaluation scales, others deal with the topic of new teaching methods and innovative methods to improve communication between healthcare professionals and patients.

The letters to the Editor draw attention to the difficult collaboration between nurses and medical emergency technicians and on the possibility of reducing patients' preoperative anxiety. A particular comment was dedicated to what is happening in recent days in Myanmar, a geographically distant country, but very close to the experience of some members of our board. The military coup and the suppression of popular protest have highlighted the close correlation between democracy and health, and the repercussions of the coup on the handling of COVID-19 have once again highlighted how health is a global good and how the right to health must be defended in a global way. **Conflict of interest:** Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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