

A debatable aspect would be the telematic (or face-to-face) follow-up in cardiology of patients with a mechanical or biological prosthesis, particularly when more than 1 year has passed after implantation and the patients have been stable. Such patients could perhaps be included in the group of patients for priority follow-up in primary care with the support of cardiology if new symptoms or suspected possible complications develop so that they undergo echocardiography.

Finally, an issue not considered by the authors because it is not the main topic of the letter is the modality of the procedures for the treatment of valvular heart diseases, given that the current pandemic situation would be another reason to prioritize percutaneous procedures (transcatheter aortic valve implantation, MitraClip), whenever indicated, because they can reduce the length of hospital stay (and thus also the risk of infection) and the need for admission to intensive care units.²

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Clinical, psychological, educational, and professional impact of the COVID-19 pandemic in young Spanish cardiologists



Impacto clínico, psicológico, formativo y profesional de la pandemia por COVID-19 en jóvenes cardiólogos españoles

To the Editor,

Not only has Spain been one of the countries most affected by the COVID-19 pandemic,¹ it has also had the highest number of infected health care staff. Although young people have been among the most involved in combating the crisis, little is known about how they have been affected. Accordingly, we decided to assess the clinical, psychological, educational, and professional impact of this pandemic on young Spanish cardiologists and to determine their degree of satisfaction with the management of the crisis. Between March and July 2020, we administered an online survey to members of the Spanish Society of Cardiology ≤ 40 years old.² The survey, created using the modified Delphi method, was voluntary and anonymous.

Of the 349 validated participants, 88% attended infected patients (76% for longer than 4 weeks). The infection incidence in this group was 15% and Madrid was the autonomous community with the highest number of reported cases. The survey results indicated that the measures were late and often inadequate. Although many cardiology services (77%) implemented protocols to avoid infection and most (96%) supplied personal protective equipment (PPE), more than half of the young cardiologists surveyed considered the protocols to be late and only 20% were satisfied with the PPE supplied; 51% of the PPE was late and insufficient and 25% was also defective. In addition, infection was facilitated by close contact between colleagues and a lack of identification and tracing of the contacts of infected physicians, which occurred in 70% of occasions. The training received by young cardiologists was also deficient. Less than half of those surveyed (46%) considered their understanding of

the COVID-19 infection and its effects to be adequate, particularly the cardiological aspects (figure 1).

According to the survey data, women were more likely to be infected (62%), data that are in line with those published by the Spanish National Epidemiological Surveillance Network³; the average age of those infected was 29 (27–33) years and most were residents or fellows (68%). The least likely to be infected were professionals who worked in electrophysiology or catheterization (4% and 6%, respectively), while the most likely to be infected were clinicians (35%).

The survey data revealed that the pandemic affected not only professionals' physical health, but also their psychological well-being. Psychological problems developed from close contact with high-risk populations, a lack of resources, a feeling of not being protected, low staffing levels, excessive workload, the high rate of infection among colleagues, isolation from family and social networks due to fear of infecting them (present in 94% of those surveyed), uncertainty, and other factors. Some of the symptoms reported are shown in figure 2. Strikingly, despite the major impact of these problems, most of the participants (95%) did not seek psychological help.

About 6 of every 10 survey participants considered this experience more positive than negative, even though 17% permanently (and 42%, temporarily) missed a work opportunity or the chance to participate in a research project or training scholarship. Regarding the handling of the health care crisis, scored from 0 to 10, cardiology services received 8 points; hospital management, 5; autonomous communities, 5; and the Spanish Ministry of Health, 4. Residents awarded cardiology services and the Ministry of Health a lower score than attending physicians, 7 and 3, respectively. We do not know the reason for this difference, but possible explanations include a lack of consultation when their clinical activity was being changed, missed opportunities, and probably a greatly personal impact of PPE shortages.

The pandemic has had a major clinical, psychological, educational, and professional impact on young Spanish cardiologists, has

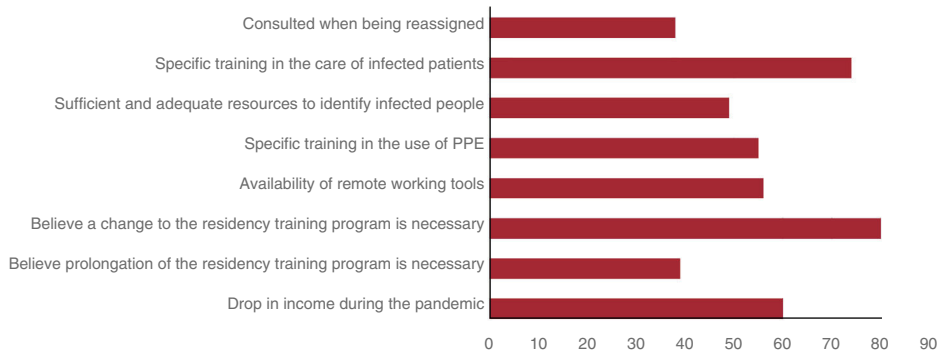


Figure 1. Educational and professional impact of the COVID-19 pandemic on young cardiologists. PPE, personal protective equipment. Data are expressed as No. (%).

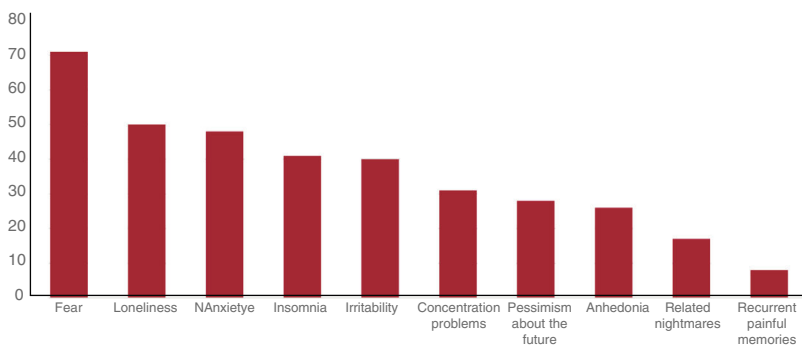


Figure 2. Psychological impact of the COVID-19 pandemic on young cardiologists. Data are expressed as No. (%).

necessitated changes to their activity, and has caused a feeling of abandonment and lack of adequate protection. Our hope is that the results of this survey guide the decision-making of management bodies and thereby help to reduce the collateral effects of the pandemic, which we unfortunately have not managed to control. Strategies such as splitting the workforce and providing rest areas with guaranteed social distancing, widespread access to PPE and detailed rules concerning its use, specializing training regarding the treatment of patients with COVID-19, and an appropriate service for protecting and preserving mental health are crucial to improve the resilience of health care staff and guarantee the sustainability of health care services during this health care crisis.

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