Career Transition During the COVID-19 Pandemic: A Postdoc Perspective

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On December 3, 2019, I (E. P.) was defending my doctoral thesis in Barcelona, Spain, and everything was set up to continue with my research career in public health: I was supposed to start a postdoctoral position in the United States by May 2020. However, because of the pandemic, as well as travel and visa restrictions, I was not able to start it, so I was back in Italy living with my parents. I was fortunate, because after months of uncertainty, during which I was supported by my family and a short-term scholarship, I started my planned US postdoc in September 2020, working remotely. I also realized that my struggle was not exceptional. My PhD desk-mate (I. A.-P.) in the United States was dealing with the approaching end of her postdoctoral fellowship, which she managed to extend for several months. We shared our own concerns and struggles, and we reflected on the challenges that we, and our peers, were facing. Indeed, our ongoing personal experience of such a tortuous and uncertain career transition during the pandemic is common to many early-career researchers,[1] including those in public health–related disciplines.[2] Many early-career researchers and trainees are currently struggling, as emerged from a recent *Nature* survey, in which 61% of respondents reported that their career prospects had been "negatively impacted" by the pandemic and another 25% said they "possibly" had been.[3]

This pandemic has shown how crucial strong public health research infrastructures are. Researchers have an important role in being consulted by governments, interviewed by the media, and contributing to the advancement of knowledge and to the scientific debate. Paradoxically, however, the current crisis may have negatively affected scientists' career perspectives. The pandemic may have worsened an already existing job precarity, as the availability of PhD and postdoc positions has become more limited through a reduction in university funding or mobility and visa restrictions.[4] The difficulty in advancing research projects—for example, due to delays in data collection—might particularly affect those scientists with short-term contracts whose career advancement depends on delivering results quickly.[3] Additionally, career advancement might be challenged by the lack of traditional networking opportunities, such as in-person conferences or short-term internships. Finally, uncertainty, precariousness, and family or community obligations may affect the motivation and productivity of early-career researchers.[5]

Thus, urgent actions are needed now to support early-career researchers. Public money—for example, from research grants (from international, national, or regional institutions)—has been spent to train this future generation of thinkers, and the investment made should not be lost. In this article, we reflect on the question, "What does academia need to do to support the career development of early-career public health researchers now, during the pandemic?"

Supporting early-career scientists starts with recognizing that their precarious job position is putting them at risk, especially during a crisis. Thus, job security should be reinforced for the current generation of trainees. Funding agencies and research teams should recognize that expecting the same productivity as before the pandemic may be unrealistic. Therefore, under some circumstances, extensions of contracts for early-career researchers or project funding should be considered; however, in the *Nature* survey only 10% of postdocs reported that their contracts had been extended.[3] Establishing positions with the option of remote working, alternative ways for networking, and different strategies for job advertisement and recruiting should be put in place.

In the current situation, where career advancement is particularly challenging, mentors are needed more than ever. Research institutions and scientific societies should strengthen (or create) mentorship programs—for example, by

facilitation of mentor–mentee pairing, regular networking meetings, or career-oriented conversations. Mentors should listen actively, build trust, encourage their mentees, and help them to identify feasible goals given the circumstances. Mentors may help early-career researchers to reimagine their career pathway, by inspiring them to generate new ideas, encouraging them to turn challenges into opportunities, and helping them to build and increase their network.

In securing career perspectives for early-career researchers during the pandemic, additional effort might be required to build and maintain a more diverse workforce.[6] Indeed, the current financial insecurity may particularly affect those who come from an underprivileged background[7]: trainees with financial means might remain in the field whereas trainees with less financial stability might be forced to leave academia. Also, the burden of the COVID-19 pandemic is disproportionally affecting underrepresented communities and women, and diversified actions might be required to address all the different needs. This is crucial: if talent and expertise are lost, society will be less equipped to tackle public health issues.

Effort in securing the researcher's job market should not come without changing the "publish or perish" culture. PhDs and postdocs need to be taught a different story: it is not about the number of publications, but about their quality and societal impact. Indeed, the urgency and the high pressure to publish results are challenging the research community. Poor-quality publications with questionable results present a dilemma, especially if they can influence the management of a public health emergency. Scientific integrity should be cultivated in the future generations of public health scientists, not only through courses on ethics in science but also by making ethical conduct and scientific integrity essential for career advancement.

In conclusion, this pandemic represents a challenge for early-career researchers in public health. Job security, mentorship initiatives, equity, diversity, and research integrity standards should be reinforced during the current situation, so that a force of future public health experts will not be lost. This will make society more empowered and better equipped to respond to this and future emergencies. AJPH

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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