How Nurse Scientists Can Stay Productive and On Track During the Pandemic

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Abstract

On March 11, 2020, with the declaration of a global pandemic by the World Health Organization, an unplanned slowdown of academic research activities has taken place. While this is not an ideal situation for nurse scientists, it presents a number of unique opportunities for researchers to shift their focus in the short-term, which may actually lead to more productivity in the long-term. This commentary explores ways nurse scientists can stay on track without derailing their plans for career advancement under unprecedented circumstances.
The COVID-19 Pandemic of 2020 has caused an upheaval in every industry, including academic institutions, around the world. Academic nurse scientists share the same concerns as other researchers—how to stay productive, competitive, and, for many, on track for tenure and promotion while their research is seemingly on pause for an uncertain amount of time. Yet, every crisis provides opportunity, and this one is no exception. There are a number of immediate actions that nurse scientists can take to help maintain research productivity during this time. Although it may be hard to believe, in the throes of the anxiety and grief caused by forced isolation, this unplanned slowdown may help nurse researchers be more systematically productive in the end.

**Communicate Up, Down, and Sideways**

Communication is key to staying productive. Communicate with your research team, your program officer, your Associate Dean for Research, and your Department Chair about your plans and available resources. Read communications from your university or hospital on COVID-19 safety and related research guidances. Follow CDC recommendations for handwashing and social distancing, and review these practices with your research team. Be informed about communications from your funding sponsor(s) on what changes and study amendments are allowable. Federal sponsors have released a number of key statements trying to mitigate study and funding disruptions. Do not forget mental health check-ins, especially with your research teams, and consider starting the day with an online huddle to keep everyone connected.
**Become Even More Tech Savvy**

Skype, Zoom, and Dropbox are tools most nurse scientists are familiar with, but there are a large number of online platforms like Microsoft Teams or Slack that help teams work more efficiently. Many universities or hospitals own site licenses for these software packages, and some are free. Each tool has varying functionality, and they include online document sharing and editing, scheduling, data sharing, individual or team assignments, to do lists, and more. It is critical to know which online tools are HIPAA compliant and what extra security features must be installed if there is human subjects data sharing taking place. Almost all of the common platforms have online tutorials, and university/hospital librarians or faculty centers for digital scholarship can assist with choosing the right platform for your team. Many of these platforms can also help set up online manuscript or grant writing groups that may work together or simply provide virtual support.

**Provide Structure**

Many research teams have loose structures. Some check in daily, some only weekly, but with laboratories and offices often neighboring each other, scheduled interactions are usually limited. In this work-at-home, online environment, daily scheduled check-ins at both the beginning and the end of the day can help teams stay focused and on track. Additionally, daily scheduling of one’s own tasks (e.g. data analysis, manuscript preparation, grant writing, etc.) may help those unsettled by the lack of the physical academic environment. One major challenge to working at home may be the distraction of being with others at home who are off their routine schedules as well. A colleague, now on lockdown with three children and a partner, put a work schedule and the kids schedule on one page, side by side on the refrigerator, so the family knew
when she was working and what they would be doing during their day (e.g. homeschooling, music practice, internet time, etc.). Their schedules included matching meal and break times throughout the day, which limits interruptions in work.

**Continue to Follow the IOM Future of Nursing Recommendations**

Fortunately, the 2010 Institute of Medicine (IOM) report on The Future of Nursing: Leading Change, Advancing Health\(^1\) provided a framework that may help guide nurse scientists in staying productive during shutdowns or slowdowns of their experiments, clinical trials, and human subjects enrollment. The push to get more nurses involved and taking leadership roles in the areas of telemedicine, e-visits, and online teaching has given many nurse scientists opportunities to prepare for the virtual research world in which we now find ourselves. Many nurse researchers already use online platforms for many aspects of data collection. The current situation calls for doing more and doing it faster. Many IRBs have set up rapid reviews for protocol amendments that move from in-person visits to online data collection. Experience with online teaching at many universities provides an easier pivot to online behavioral interventions coupled with e-visits, videos, or apps. In some cases, small amounts of funding from Deans, Department Chairs, or universities can be negotiated to help make these adjustments. These adjustments may actually guide ongoing protocol improvements well past the pandemic by way of maintaining continuity in interventions and follow-up assessments when patients or subjects miss scheduled visits or move away.
Be Creative in Replacing Delayed Pilot Data

One of the (many) anxieties the delay in experiments, biospecimen analysis, or human subjects data collection is causing is the loss or delay of collecting pilot data for the next grant or manuscript, but there are multiple options for overcoming this obstacle. Although, these options may not provide the “perfect” data you were collecting yourself, they remain good viable alternatives, and they may even open you to new opportunities. These include mining your own data in news ways, using freely available data sets, and reaching out to current or new collaborators to share data. Most nurse scientists have some data of their own that they have considered analyzing for secondary analysis or new hypothesis testing that may help replace some the work that has been delayed. There are a myriad of international, national, state, and local databases available for free, or some for a nominal charge. For example, the Nurses’ Health Study\textsuperscript{2}, which is one of the largest prospective datasets assessing the risk factors for major chronic diseases in women, is a study that started in 1976, has data on over 275,000 participants, and is still enrolling subjects. A Google search using key words of interest such as the population (e.g. children), disease (e.g. cancer), intervention (e.g. exercise) or phenomena (e.g. health-related quality of life), plus “dataset” will provide a wealth of options for analysis and development of pilot data to provide rationale for future study aims. In addition, every nurse researcher has colleagues that they wish they had the time to collaborate with, but busy schedules often prevent such collaborations. Now, more than ever, is a perfect time to make those connections, brainstorm current problems and solutions in maintaining research productivity, and asking, when appropriate, to share data.
Finally, try to appreciate the cancelation of meetings and conferences, which will give you more time to focus on important things like data analysis, manuscript preparation, grant amendments, and new hypotheses. This unplanned “downtime” will allow you to address the things we always mean to get to—things that we rarely have enough time for—like data quality checks, realigning SOPS to reflect protocol amendments, reviewing protocols for protocol drift with our teams, and developing new collaborations. It would be an upside of downtime to schedule in time to rest, reflect, rejuvenate, and let the creative juices flow again. As to promotion and tenure, many universities are adding time to the clock. The whole world is in this together. Worry will not help, staying productive and on track will.
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