

The Scottish Dementia Research Consortium Covid-19 Impact Report on Early Career Researchers

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On behalf of the SDRC Executive

Executive Summary

A survey was completed by 60 Early Career Researchers (ECR) who are members of the Scottish Dementia Research Consortium (SDRC) to determine the impact of the COVID-19 pandemic on their research and work life.

This showed that severe impact was being felt already and this was having an effect on job security, scientific quality and future prospects. This survey represented 14 academic institutions in Scotland and all five of the SDRC Research Themes.

Prioritisation of future research activity and funding to COVID-19 related topics was not felt to be a mitigation for SDRC research and was felt to undermine the necessity for specific Brain Health and Dementia research.

Lobbying government, establishing new funding, maintaining the ECR community and continuing to advocate for the prioritisation of Brain Health and Dementia Research were all key requests of our ECR membership.

The SDRC Executive has put in place a 4-point action plan on the basis of this report:

[1] The report will be passed directly to Scottish Government to enhance our ongoing efforts to address the requests made by ECRs

[2] The report will be shared on all our usual social media channels and website

[3] The SDRC Executive will form a project plan to work through each of the challenges and potential solutions brought to our attention

[4] We will re-run a similar survey in mid-July 2020 to gauge progress of SDRC interventions as well as further consequences of the COVID-19 pandemic

Background

In March 2020 the impact of the unfolding COVID-19 pandemic was felt by schools and universities with their closure to all but essential activity. In the week of March 16th all Scottish Universities closed laboratories and further visits for clinical research were postponed indefinitely. On April 6th at a scheduled meeting of the Scottish Dementia Research Consortium (SDRC) Executive it was agreed to propose to Scottish Government that a mitigation plan should be put in place to minimise the impact of the pandemic on Scottish Dementia and Brain Health Research and especially as this affected the work and careers of Early Career Researchers.

At this meeting it was also decided to run a survey of all members of SDRC who identify themselves as Early Career Researchers. The survey design was overseen by the authors of this report and launched by e-mail to members and through all available social media channels. This launch took place on Monday 13th April and closed on the 17th of April. Rapid timelines were in place to reflect the urgency of the issue and the need to put in place remediable actions as quickly as possible.

Methods

There were several factors being observed anecdotally by the SDRC Executive that were considered worthy of exploration in more detail in this survey. Namely, what impact was the 'lock down' having on day to day work, grant applications, career prospects, project write ups and job security. A mixed methods approach was chosen that collected data which described the respondents on key variables, forced choice questions on the impact of the lockdown and space for relevant free text observations by respondents. Finally a summary score on a scale of 0-10 (with 10 being 'severe impact') was asked, to reflect a summary of the impact on the individual's research.

Quantitative Results

There were 60 responses received from an estimated 100 Early Career Researchers who are members of the SDRC. Figure 1 describes the respondents by age, sex, place of work, grade and the main SDRC theme they work in. It also demonstrates in each of these categories the mean 'impact score'.

Overall the sample was predominantly female (56.7%), under the age of 35 (48.3%) and working at the PhD or post-doctoral level (66.1%). In total 14 academic institutions from across Scotland were represented.



Figure 1: Breakdown of respondents (n=60) and mean impact by categorisation

<u>Research On Hold</u>	
Yes	42 (70%)
No	18 (30%)
Extension Needed to Complete Research	
Not sure	13 (21.7%)
Yes	29 (48.3%)
No	17 (28.3%)
Refused	1 (1.6%)
Lockdown has Affected Grant Applications	
No	45 (75%)
Yes	15 (25%)
Now involved with COVID-19 Research	
No	43 (86%)
Yes	7 (14%)
There will be an impact on my Job Security	
Don't know maybe	28 (46.7%)
Yes	19 (31.7%)
No	13 (21.7%)

Table 1: Impact of COVID-19 on 5 Key (Forced Choice) Questions

The vast majority of respondents had had their research put on hold (70%) with only 28.3% believing that some form of extension to their work wouldn't be required. Only 25% felt at this stage that the lock down has affected grant attainment. The reduced activity in the respondents own research pre-COVID has not been mitigated by moving their research work to COVID-19 related research that has only taken place in 14% of cases. After only 4 weeks of

Lockdown, 78.4% of respondents considered that the lockdown might or was already having an impact on their job security.



Figure 2 shows the overall frequency of response to the 0-10 scale of summary impact on research. The mean value was 7.15 and median was 7.

Figure 2: Frequency of responses on 0-10 to Question on overall impact of Covid-19 on individual's own research.

Qualitative Results

Respondents who indicated that their research was on hold due to the impact of COVID-19 were asked to provide details on how the research was affected. Respondents described delays both for lab-based research and practice-based or applied research. Although the circumstances of the delay were recent, many respondents were anticipating long-terms delays to their research:

The charity I am working with will definitely be extremely busy once it is safe to socialise again. It will likely be delayed for a very long time. (PhD Student, Informatics)

Our projects also involve animal experimentation with long protocols so it will take us 1-2 months more to come back to normal activity after lockdown. (Post-doctoral researcher, Fundamental Science)

While, some respondents explained measures they have taken to adapt their studies to respond to the COVID-19 pandemic (such as use of online or telephone data-collection) this was not possible for the majority who require access to material resources. There were also concerns about the confounding impact of COVID-19 on planned studies, which may require re-designed or reviewed in light of the situation:

Current experiences of 'everyday' phenomena will not be 'normal', thus issues around the reliability of data to reflect themes researched as ordinarily experienced and consequent implications for generalisability of findings from data gathered in such circumstances. (Post-doctoral, Living with Dementia)

The respondents reported that many grant calls have been delayed or cancelled or that research funding has been repurposed to respond to the COVID-19 situation. This has left respondents with serious worries about their own current and future research careers. This included loss of project funding, uncertainty about future funding sources and impacts on future career development opportunities.

I had put in a small grant for funding for a piece of equipment that would have greatly helped move my research forward. Unfortunately the remit of the award changed to heavily prioritise COVID19 related work, and as such, my application was no longer viable. (Fellow, Fundamental Science)

The final question asked respondents to describe other impacts on their research and research plans as a result of the COVID-19 situation. These impacts were both wide-ranging and severe in nature for respondents own careers and wellbeing. In particular, PhD students described worries about completing their studies in time and the additional loss of important learning and development activities such as conferences and working face-to-face with people and organisations:

I will be unable to complete my PhD within the planned deadline, which in turn will delay starting a new research post. (PhD student, Living with Dementia)

For those respondents who were post-doctoral, the key concerns related to increased competition for research funding and loss of opportunities to interact with senior colleagues for mentorship at an important career transition point:

It is very depressing to get emails about available funding schemes to see 9/10 of them are now restricted to COVID19 only proposals. I worry if this is a long term trend that, as an ECR, this will affect my ability to progress in my career, hire my own staff and develop my own network. (Post-doctoral, Fundamental Science)

This means that early career researchers may shift their expertise in line with available funding, negatively impacting of Scotland's dementia research community:

Funding priorities may have changed which would mean research proposals may not get funded. This would mean looking for research and career opportunities elsewhere. (Post-doctoral, Informatics) Additionally, the changes in the working environment are impacting on respondents abilities to be productive and continue in their research. This included managing childcare, increased clinical work on the frontline and lack of access to resources essential for research and research activities (e.g. libraries, labs and materials), as well as the health and wellbeing of the respondents:

Adjusting to working from home. Home environment is not always as quiet as I'd like and there are many distractions. Not all students/staff have access to a quiet place to study. Libraries are also not available at the moment. (PhD student, Informatics)

Case Reports

We solicited three case reports from Early Career Researchers who were working in University of West of Scotland (Living Well with Dementia Theme), University of Glasgow (Fundamental Sciences Theme) and University of Edinburgh (Prevention Theme). (Appendix)

Conclusions

In the five day period from Monday 13th April to Friday 17th April, 60 research active members of the Scottish Dementia Research Consortium responded to an online survey to gauge the impact of COVID-19 on their research. Only four weeks into the 'academic' lockdown, the vast majority of ECRs were considering the overall impact was edging towards 'severe' with 43/60 rating the impact at 7 or greater. At this early stage, researchers and academics were already feeling less secure with their research careers (78%) and most were experiencing operational difficulties in conducting their research (70%). Although only 25% believed the lockdown was impacting on grant attainment this may represent the early career stage of the respondents who are not usually responsible for getting new grants as well as the fact that the delay in awarding grants e.g. Alzheimer's Society – may only be applicable to a small proportion of respondents who were in research groups who had been successful in the most recent grant rounds. Only 28% did not (at this stage) believe that the timelines for their work would be affected by COVID-19 which may reflect students at the analysis or write-up stage of their work where no new data collection or experiments are needed. This was however a small proportion of the total respondents.

The qualitative data helps us to describe the challenges facing our membership in the current situation. These data revealed serious consequences for early career researchers at all stages. For PhD students, worries about timely completion of their studies were key. For post-doctoral researchers, they were worried about the availability of grant income and job security. Ultimately, for the SDRC, it is imperative that throughout the COVID-19 crisis we support out talented early career researchers in order to ensure excellent and impactful dementia continues in Scotland. In the survey, our members have identified the following ways in which we can continue to *'Continue to push Scotland as a 'centre of excellence':*

- Solicit support from the government to help fund the researchers and projects affected by COVID.
- Advocate for research efforts (and funding) to be focused only on large, well-conducted, ethical, collaborative studies
- Lobbying to ensure PhD funders support extensions,
- Keep researchers in this field linked together.
- Share best practice and innovative approaches to data collection
- Make sure dementia research remains a public priority.
- SDRC should help coordinate grant applications between institutions to ensure limited research money still comes to Scotland

Summary

In summary, the survey achieved a representative sample of Early Career Researchers from across all our research themes and from within 14 Higher Education Institutes. The experiences, therefore, brought to our attention by respondents and the undoubted impact of COVID-19 are not specific to one type of research or one institution but represent an incredibly serious and widespread problem with immediate and long-term detrimental consequences.

Data and scientific quality, job security, on-going grants, post-COVID recovery and re-establishment and deprioritisation of dementia and brain health research were identified by this report.

The SDRC has always prioritised support for Early Career Researchers undertaking and planning Dementia and Brain Health Research across all of Scotland.

We believe we have the mandate, the responsibility and the resources to respond to the proposals from our ECR's to solicit new funding, lobby funding bodies, maintain integration of researchers, share best practice, continue to promote the value to society and the public of dementia and brain health research and provide central coordination for research activity.

Actions

[1] This report will be passed directly to Scottish Government to enhance our ongoing efforts and address specifically the requests made by ECRs

[2] The report will be shared on all our usual social media channels and website [3] The SDRC Executive will deliver a project plan to work through each of the challenges and potential solutions brought to our attention

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Appendix: Case Reports:

Sarah Gregory: PhD Student and Study Coordinator: University of Edinburgh

I am a part time PhD student and part time study coordinator at the University of Edinburgh. The studies I coordinate are suspended due to COVID-19 as they involve face-to-face contact with participants. This in turn means the studies will take longer to achieve and the data from them will not be available for analysis as quickly as we hoped. In my PhD I use secondary data to explore my thesis question, and alongside these anticipated delays of data release, one of the large databases I have applied to has currently suspended data sharing until after COVID-19. I have a grant application under review but the scope of the call was extended to particularly encourage COVID-19 applications so I worry that our application will no longer be considered on a level playing field. Cancelled conferences also reduce the ability to present work, find out about the latest research in the field and develop your professional network. Longer term I am concerned that dementia research will fall out of favour for public funding as we recover from this pandemic, or that charities that currently support us with grants will not have the ability to do so due to their own loss of income, which will affect job security and progression opportunities. From a wider societal perspective I am worried that dementia is no longer in the public focus and important research work in this field is currently side-lined.





Miriam Scarpa: PhD Student: University of Glasgow

My name is Miriam and I am a 3rd year PhD student in Translational Pharmacology at the University of Glasgow, investigating drug targets for neurodegenerative diseases. My research involves animal studies which require long-term planning. My project is funded by the MRC until September 2020. This was supposed to be the most productive and fruitful phase of my PhD, not only in terms of experimental work, but also publications and conference presentations. With my supervisor, we have recently obtained some funds to enable us to start a new collaborative project. The pilot study itself should have taken 5-6 months, starting from animal breeding to the analysis of the results – this had to be postponed until the University facilities will be back up and running as normal, which might be too late for my involvement, considering the approaching deadline for my PhD completion. Another collaborative new study, that has already been set up to complete this April, had to be delayed implying that the money spent for it so far were lost, and, most upsettingly, the animals had to be culled. I have been very pleased with the outcomes of my PhD so far as I made interesting and important discoveries, and

this year I have finally been accepted to present as oral communicator at a popular meeting held by the British Pharmacological Society, as well as I was invited as speaker for an Early career researcher Symposium for an institute that has caught my interest for future job prospects. These (like many more) would have been important opportunities for me not only to present my research to the scientific community, but also to network and create contacts for potential future jobs. It's safe to say that these events have been cancelled/postponed due to the COVID-19 pandemic. Some of the meetings will be happening virtually – very grateful for technology! – but the networking aspect will not be the same. The COVID-19 pandemic has significantly impacted my experimental work as well as my career prospects. My worries lie in the fact that it will be unlikely for me to complete my experiments, publish and present my research on time, before my project funding landscape will change due to this crisis, or because I won't be able to meet the requirements e.g. publications.

Edel Roddy: PhD Student: University of the West of Scotland

It feels important to begin this piece with acknowledgement of the multiples losses, grief, tenacity and love that is the current reality in care homes across Scotland and the world at the moment. I work as a Post-Doctoral Research Fellow/ Project Lead for a research study entitled Kinections- strengthening community in care homes. The University of the West of Scotland, leads the study with funding from Life Changes Trust, in collaboration with care homes across East Ayrshire. This is a participatory appreciative action research project, exploring the concept of (dementia-friendly) community in care homes. We were 2 years and 5 months into this 3-year project when lockdown began. As this is a participatory project, and it is no longer possible to physically access care homes the impact on the project has been significant. When care homes began lockdown we were days away from hosting an event to share resources developed in the project thus far on the theme of how we get to know others in our care home communities, in order that these resources could be further tested out in practice.



Multiple other strands of the project have been deferred including events with residents, focused pieces of work including research with people with advanced dementia and further data generation and co-analysis. For example, carrying out observational research with people with advanced dementia in the care home environment has been put on hold. Following a positive application and review process with Scotland A REC, we were embarking on exploring the meaning of community in care homes with members of this under-researched group of people. In order to keep open the possibility of re-gaining access to the care homes, I have been supported by the University and funders to reduce my hours over the summer months, in order that the project can be extended to December 2020. Perhaps, the biggest impact for me personally has been grappling with ways in which to be 'useful', as I think about the residents, staff and wider care home community members who I have such respect and fondness for. Some questions that surface for me in reflecting on being involved in research in care homes during COVID-19:

• What new, or previously unconsidered, places can I (and other researchers) gain inspiration from as to how to approach valuating outcomes, when COVID-19 has significantly impacted on research activity?

• In light of the experience in this project of restrictions on access to care homes, what possible options are there for re-imagining participatory research in care homes?