



Paper planning workshop

<http://nhscheck.org>

 @NHSCHECK1

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Background



Established phenomenon of research ‘hackathons’ - brainstorm ideas and rapidly write papers.

Dynamic, collaborative, interdisciplinary events, usually addressing a defined problem or issue, sometimes framed as competitions. E.g.:

- X-Culture hackathon: <https://x-culture.org/hackathon/>
- Civica hackathon: <https://www.civica.eu/civicaresearch/hackathon-societies/>
- Imperial DigiFAB hackathon: <https://www.imperial.ac.uk/events/163577/digifab-hackathon-2023/>

You can read more about hackathons in Heller et al. (2023): <https://innovation-entrepreneurship.springeropen.com/articles/10.1186/s13731-023-00269-0>

Session plan

This will be a practical session that aims to:

- i) discuss some ways of identifying research questions;
- ii) outline existing datasets that could help answer research questions about occupational health and wellbeing;
- iii) use one existing dataset (from the NHS CHECK study) in a mini 'hackathon' style exercise to plan potential papers.

Research questions

How do you come up with interesting, impactful research questions?

- **Practical Problem-solving:** Consider real-world problems or challenges in your field. Frame research questions that address these problems and contribute to practical solutions.
- **Observation and Experience:** Pay attention to your own experiences and observations in your field of interest. Real-world observations can lead to questions that address practical challenges.
- **Consultation with Stakeholders:** Consult with stakeholders, practitioners, or community members relevant to your research topic. Their perspectives can help identify practical and meaningful research questions.
- **Lived experience:** A very important subset of stakeholders in health research are people with lived experience, e.g. people who have experience of a particular disease, disorder, or use of health services.

- **Look at government research areas of interest:** Government departments regularly publish areas of research interest:
<https://www.gov.uk/government/collections/areas-of-research-interest>
- **Literature Review:** Identify gaps, controversies, or unanswered questions in current research. Adapt or build upon existing research questions to address new aspects or angles within your research area.
- **Journal editorials:** Explore editorials in reputable journals in your field, which often summarise research gaps and pressing issues.
- **Collaboration and Discussion:** Engage in discussions with colleagues, mentors, and experts in your field. Collaborative brainstorming can provide diverse perspectives and stimulate new ideas.
- **Attend Conferences and Workshops:** Participate in conferences and workshops to stay updated on the latest research trends. Engage with other researchers and use these platforms for idea exchange.
- **Cross-disciplinary Approach:** Consider integrating insights from other disciplines. A cross-disciplinary approach can bring fresh perspectives and lead to innovative research questions.



- **Theory Exploration:** Delve into existing theories in your field and explore their applications or limitations. Identifying gaps or areas where existing theories fall short can lead to novel questions.
- **Technology and Methodology Advances:** Stay abreast of advancements in technology and research methodologies. New tools or methods may open up avenues for novel research questions.
- **The "So What?" Test:** Evaluate potential research questions by asking yourself, "So what? Why does this matter?". Ensure that your questions have significance and contribute meaningfully to the field.
- **Explore existing datasets:** Exploration of existing datasets can give you insight into what questions might be answerable already. Seeing a list of variables can provide inspiration when feeling stuck.

Data sources

- **UK Data Service:** <https://ukdataservice.ac.uk/find-data/browse/>

The one-stop-shop for data on a huge range of topics, including mental health and labour. It includes datasets such as Understanding Society (The UK Household Longitudinal Study) <https://www.understandingsociety.ac.uk/>, a longitudinal survey collecting data on topics including employment and mental health.

- **NHS Digital – Adult Psychiatric Morbidity Survey:** <https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey>

This survey collects data on the prevalence of mental disorders among adults in England, including information on occupation.

- **NHS Digital – Electronic Staff Record National Workforce dataset:** <https://digital.nhs.uk/data-and-information/areas-of-interest/workforce/national-workforce-data-set-nwd-guidance-documents>

The payroll database system commissioned by the DHSC and used by 99% of NHS Trusts. Data are available about the workforce of every Trust.

- **NHS Digital – NHS Safety Thermometer:** <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-safety-thermometer-report>

A measurement tool that focused on the most common harms to patients. This service is now closed, but data are available from 2012-2017.

- **NHS England – National Reporting and Learning System (NRLS):** <https://www.england.nhs.uk/patient-safety/national-patient-safety-incident-reports/>

This dataset contains data on patient safety incidents. There is data from 2003 to 2023, but this system is currently being replaced by the Learn From Patient Safety Events (LFPSE) service (<https://www.england.nhs.uk/patient-safety/learn-from-patient-safety-events-service/>).

- **NHS England – Model Health System:** <https://www.england.nhs.uk/applications/model-hospital/>

The Model Health System collates system-level data about all acute, ambulance, and mental health and community NHS Trusts in England. There is a Wellbeing Compartment which contains data on staff wellbeing.

- **Health and Safety Executive (HSE) - Great Britain:** <https://www.hse.gov.uk/>

The HSE provides statistics and research related to work-related stress, mental health, and occupational health in Great Britain.



- **Office for National Statistics (ONS) - Labour Force Survey:**

<https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/labourforcesurvey>

The ONS Labour Force Survey includes data on mental health and well-being, and it can be analyzed to explore the relationship between mental health and occupation.

- **UK Biobank:** <https://www.ukbiobank.ac.uk/>

The UK Biobank provides a wealth of health-related data, including job title and genetic/lifestyle factors. Researchers can explore associations between mental health and various occupational factors.

- **Cohort and Longitudinal Studies Enhancement Resources (CLOSER):**

<https://www.ucl.ac.uk/ioe/departments-and-centres/centres/cohort-and-longitudinal-studies-enhancement-resources-closer>

CLOSER provides access to a range of longitudinal studies that may include data on mental health and occupation, such as the National Child Development Study and the 1970 British Cohort Study.

- **Workplace Employment Relations Study (WERS):** <https://www.wers2011.info/>

WERS provides historic data on employment relations in the UK from 1980 to 2011, and some editions include aspects related to mental health.



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- **European Social Survey (ESS) - UK Data Archive:** <https://www.europeansocialsurvey.org/about-ess>

The ESS collects data on a wide range of social issues, and its UK data archive may contain information on mental health and occupation.



NHS CHECK



One of the UK's largest studies of the mental health and wellbeing of healthcare workers through COVID-19

Includes ALL staff (not just clinical).

Longitudinal - online surveys completed at baseline (started April 2020), 6 months, 12 months, and 32 months.

Protocol paper out in BMJ Open:

<https://bmjopen.bmj.com/content/11/6/e051687.abstract>

NHS CHECK data

>24,000 participants at baseline

~12,000 at 6 month follow up

~12,000 at 12 month follow up

~7,500 at 32 month follow up

Sociodemographics

Occupational variables

Experiences of COVID-19

Free text qualitative questions

- General Health Questionnaire (GHQ)
- Brief Resilience Scale (BRS)
- Generalised Anxiety Disorder (GAD-7)
- Patient Health Questionnaire (PHQ-9)
- Warwick-Edinburgh Mental Well-being Scale (WEMWBS)
- Moral Injury Event Scale (MIES)
- Burn-out Assessment Tool (BAT-12)
- Clinical Interview Schedule-Revised (CIS-R)
- Alcohol Use Disorder Identification Test-C (AUDIT)
- PTSD Check List civilian version (PCL-6)
- Posttraumatic Growth Inventory (PGTI-SF)
- Work and Social Adjustment Scale (WSAS)

Activity

In small groups:

- Identify a research question that could be answered by this data.
- How many time points do you have data at?
- Are you using a subpopulation in the sample?
- What kind of analysis will be possible?
- Which other variables will you need to include?

If you have time:

- Bullet point an intro section – what's the gap in the literature this question will answer?
- Bullet point an analysis plan.

Thank you

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