Plan Overview

A Data Management Plan created using DMPonline

Title: The influence of later life learning on health: a Social-Biological approach

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Funder: Economic and Social Research Council (ESRC)

Template: ESRC Template Customised By: University of Manchester

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Project abstract:
We are using socioeconomic and genetic data in a candidate-gene approach to determine if later life learning impacts the trajectory of age-related cognitive decline and risk for dementia. We hope to show that learning in later life can reduce the age of onset of neurodegenerative disease or play a role in ameliorating the symptoms of cognitive decline.

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The influence of later life learning on health: a Social-Biological approach

Manchester Data Management Outline

1. Will this project be reviewed by any of the following bodies (please select all that apply)?

- Funder

2. Is The University of Manchester collaborating with other institutions on this project?

- No – only institution involved

3. What data will you use in this project (please select all that apply)?

- Re-use existing data (please list below)

4. Where will the data be stored and backed-up during the project lifetime?

- P Drive (postgraduate researchers and students only)
- Other storage system (please list below)

A copy of the data will be stored on my personal laptop. I will adhere to Dr Payton's guidelines for storing, processing and disposing of data.
After I leave the University I will delete my data from P drive.

5. If you will be using Research Data Storage, how much storage will you require?

- Not applicable

6. Are you going to be receiving data from, or sharing data with an external third party?

- No

7. How long do you intend to keep your data for after the end of your project (in years)?

- 0-4 years

Guidance for questions 8 to 13
Highly restricted information defined in the Information security classification, ownership and secure information handling SOP is information that requires enhanced security as unauthorised disclosure could cause significant harm to individuals or to the University and its ambitions in respect of its purpose, vision and values. This could be: information that is subject to export controls; valuable intellectual property; security sensitive material or research in key industrial fields at particular risk of being targeted by foreign states. See more examples of highly restricted information.

If you are using 'Very Sensitive' information as defined by the Information Security Classification, Ownerships and Secure Information Handling SOP, please consult the Information Governance Office for guidance.

Personal information, also known as personal data, relates to identifiable living individuals. Personal data is classed as special category personal data if it includes any of the following types of information about an identifiable living individual: racial or ethnic origin; political opinions; religious or similar philosophical beliefs; trade union membership; genetic data; biometric data; health data; sexual life; sexual orientation.

Please note that in line with data protection law (the UK General Data Protection Regulation and Data Protection Act 2018), personal information should only be stored in an identifiable form for as long as is necessary for the project; it should be pseudonymised (partially de-identified) and/or anonymised (completely de—identified) as soon as practically possible. You must obtain the appropriate ethical approval in order to use identifiable personal data.

8. What type of information will you be processing (please select all that apply)?

- Anonymised personal data

All volunteers are anonymised using a 5 digit ID.

9. How do you plan to store, protect and ensure confidentiality of any highly restricted data or personal data (please select all that apply)?

- Store data on University of Manchester approved and securely backed up servers or computers
- Anonymise data
- Impose suitable data sharing and collaboration agreements
- Impose suitable non-disclosure agreements (e.g. for managers or users of personal data)
- Where needed, follow University of Manchester guidelines for disposing of personal data

10. If you are storing personal information (including contact details) will you need to keep it beyond the end of the project?

- Not applicable

11. Will the participants' information (personal and/or sensitive) be shared with or accessed by anyone outside of the University of Manchester?

- No

12. If you will be sharing personal information outside of the University of Manchester will the individual or organisation you are sharing with be outside the EEA?

- Not applicable

13. Are you planning to use the personal information for future purposes such as research?

- Yes

14. Will this project use innovative technologies to collect or process data?

- No

15. Who will act as the data custodian for this study, and so be responsible for the information involved?

Dr Tony Payton

16. Please provide the date on which this plan was last reviewed (dd/mm/yyyy).

2023-02-09

Assessment of existing data

Provide an explanation of the existing data sources that will be used by the research project, with references

We will use secondary data from the 'University of Manchester Longitudinal Study of Cognition in Normal Healthy Old Age' cohort. Specifically, GWAS data, sociodemographic data, measures of cognitive skills, death information, MRI data, and brain pathology data. Analysis and results derived from the use of the dataset will be owned by the University of Manchester.

Data collection has been documented and published.

Rabbitt, P., McInnes, L., Diggle, P., Holland, F., Bent, N., Abson, V., ... & Horan, M. (2004). The University of Manchester longitudinal study of cognition in normal healthy old age, 1983 through 2003. *Aging Neuropsychology and Cognition*, *11*(2-3), 245-279.

Data are protected and stored by Dr. Antony Payton (Senior Lecturer in Healthcare Sciences,Division of Informatics, Imaging & Data Sciences)

Provide an analysis of the gaps identified between the currently available and required data for the research

N/A

Information on new data

Provide information on the data that will be produced or accessed by the research project

This is a secondary analysis project. No further data will be produced.

Longitudinal data collection has been documented and published.

Rabbitt, P., McInnes, L., Diggle, P., Holland, F., Bent, N., Abson, V., ... & Horan, M. (2004). The University of Manchester longitudinal study of cognition in normal healthy old age, 1983 through 2003. *Aging Neuropsychology and Cognition*, *11*(2-3), 245-279.

Quality assurance of data

Describe the procedures for quality assurance that will be carried out on the data collected at the time of data collection, data entry, digitisation and data checking.

This is secondary data use and no further data will be collected or generated. Data dictionaries and quality control have already been created/applied.

Backup and security of data

Describe the data security and backup procedures you will adopt to ensure the data and metadata are securely stored during the lifetime of the project.

Data is coded and stored on my laptop and on https://livemanchesterac-my.sharepoint.com/ (my personal-uni account).

Back-ups will be made at regular intervals.

Management and curation of data

Outline your plans for preparing, organising and documenting data.

As stated, we are using secondary data. Dr Payton and his team organized the data in files and prepared a variable information log describing all resources.
The data will be utilized and analyzed in the current PhD.
The findings of the analyses will be included in the PhD thesis.

Difficulties in data sharing and measures to overcome these

Identify any potential obstacles to sharing your data, explain which and the possible measures you can apply to overcome these.

Data is already anonymised and data sharing agreement is signed.
Thus, I expect no obstacles.

Consent, anonymisation and strategies to enable further re-use of data

Make explicit mention of the planned procedures to handle consent for data sharing for data obtained from human participants, and/or how to anonymise data, to make sure that data can be made available and accessible for future scientific research.

Data is already anonymised and data sharing agreement is signed.

Copyright and intellectual property ownership

State who will own the copyright and IPR of any new data that you will generate.

Secondary data will be utilized and analyzed in the current PhD.
The findings of the analyses will be included in the PhD thesis.
UoM will own the copyright of the thesis.

Responsibilities

Outline responsibilities for data management within research teams at all partner institutions

This is a PhD project. I have received a variety of secondary data from the ‘University of Manchester Longitudinal Study of Cognition in Normal Healthy Old Age’ cohort that I will analyse by using specific statistical approaches to answer my research questions.
Data collection has been documented and published. Rabbitt, P., McInnes, L., Diggle, P., Holland, F., Bent, N., Abson, V., ... & Horan, M. (2004). The University of Manchester longitudinal study of cognition in normal healthy old age, 1983 through 2003. *Aging Neuropsychology and Cognition*, *11*(2-3), 245-279.

The collection of data has finished.

Data are protected and stored by Dr. Antony Payton (Senior Lecturer in Healthcare Sciences,Division of Informatics, Imaging & Data Sciences)

Preparation of data for sharing and archiving

Are the plans for preparing and documenting data for sharing and archiving with the UK Data Service appropriate?

Data collection has been documented and published.

Rabbitt, P., McInnes, L., Diggle, P., Holland, F., Bent, N., Abson, V., ... & Horan, M. (2004). The University of Manchester longitudinal study of cognition in normal healthy old age, 1983 through 2003. *Aging Neuropsychology and Cognition*, *11*(2-3), 245-279.

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Is there evidence that data will be well documented during research to provide highquality contextual information and/or structured metadata for secondary users?

Data collection has been documented and published.

Rabbitt, P., McInnes, L., Diggle, P., Holland, F., Bent, N., Abson, V., ... & Horan, M. (2004). The University of Manchester longitudinal study of cognition in normal healthy old age, 1983 through 2003. *Aging Neuropsychology and Cognition*, *11*(2-3), 245-279.

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