Department Name:

Centre for Psychiatry, Wolfson Institute of Preventive Medicine, Barts and the London School of Medicine and Dentistry, Queen Mary University of London

Supervisors names and email addresses:

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Application Deadline: 14:00 on 27/03/19

Interviews: during the w/c 08/04/19

Project Title:

Mapping Complex CAre Pathways for Personality Disorder (MACCA-PD)

Project Description:

People with a diagnosis of personality disorder (PD) are at exceptionally high risk of negative outcomes following their engagement with health and social care services, including trouble with the police, accident & emergency admissions and even suicide. Usage of advanced quantitative modelling with routinely collected health service use data has been shown to highlight clinical and service factors linked to poor health outcomes, and suggest new pathways for effective intervention (Robson et al., 2017), but this has not previously been attempted with a group of patients presenting with PD.

This PhD project will involve the application of innovative machine learning, AI or advanced quantitative techniques – such as SEM, decision trees or Bayesian Networks – to a unique linked dataset of primary and secondary care records to enhance risk prediction and decision-making at clinical and commissioning levels. It will include three workstreams:

1. Use of appropriate techniques to establish a causal model of the care pathways

following primary care access for people with personality disorder (e.g. psychotherapy, medication), including mapping of the most successful care pathways and identifying primary risk factors for poor outcomes (e.g. alcohol use; comorbidity);
2. Use of a qualitatively-based expert knowledge elicitation approach (Shadbolt & Smart, 2015) with a combined sample of service users and health professionals to identify potential drivers for the effectiveness/ineffectiveness of the pathways that cannot easily be modelled from data;
3. Utilise a mixed-method approach to integrate these two workstreams into an updated model that informs a prototype decision support tool for professionals who have contact with individuals with a diagnosis of personality disorder when considering onward pathways.

All candidates should hold a Master's qualification (or complete their Master's by September 2019) in an appropriate discipline and have a minimum of a 2:1 or equivalent in their first degree. Applicants should preferably have knowledge of the UK health and care system. All applicants are required to have excellent written and verbal communication skills. They should also be willing to work collaboratively in multi-disciplinary and multi-professional teams.

Project-specific skills and experience required:

Essential:

Demonstrable skills and experience with advanced quantitative methods, including multivariate analysis and ideally modelling (e.g. PLS SEM; decision tree analysis; Bayesian Networks) using statistical software packages (e.g. R or STATA).

Desirable:

Experience or training in qualitative and mixed-methods work.

CLAHRC Research area: Mental health

References :

Robson, J., Dostal, I., Madurasinghe, V., Sheikh, A., Hull, S., Boomla, K., Griffiths, C., Eldridge, S. (2016). NHS Health Check comorbidity and management: an observational matched study in primary care. *The British journal of general practice: 67*(655), e86-e93.

Shadbolt, N. R., & Smart, P. R. (2015) Knowledge Elicitation. In J. R. Wilson & S. Sharples (Eds.), Evaluation of Human Work (4th ed.). CRC Press, Boca Raton, Florida, USA. (http://www.amazon.co.uk/Evaluation-Human-Work-FourthWilson/dp/1466559616/).

Funding Notes:

Start date: 01/10/19

Duration: 3 years, full time

Stipend: £17,803

Institution: QMUL

Enquiries email name and address:

For general enquiries, please email: clahrc.academy@ucl.ac.uk

For project specific queries, please contact: Dr Mark Freestone: m.c.freestone@qmul.ac.uk