

Department Name:

Division of Psychiatry, University College London

Supervisors names and email addresses:

- 1) Dr Joseph Hayes: joseph.hayes@ucl.ac.uk
- 2) Prof David Osborn: d.osborn@ucl.ac.uk (joint Primary supervisor)
- 3) Prof Ian Wong: i.wong@ucl.ac.uk

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

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

Project Title:

Somatic and psychotropic polypharmacy: Understanding sociodemographic factors and the effects of polypharmacy in people with mental health problems

Project Description:

The rising prevalence of complex long-term disorders is a major challenge facing healthcare systems worldwide. Although individual diseases dominate healthcare delivery approaches, medical research, and medical education, people with multi-morbidity—those with two or more chronic morbidities—need a broader management approach. Multi-morbidity is increasingly common, and treatment regimens become increasingly complex. Multi-morbidity in mental health, and between mental and physical health has been relatively under-researched. Severe mental illnesses (SMI) (including schizophrenia, bipolar disorder and other psychotic illnesses) and common mental disorders (CMD) (depression and anxiety) carry a huge personal and socioeconomic burden. Individuals with these diagnoses die up to 15 years earlier than the general population, after accounting for socioeconomic status. Both long-term physical and psychiatric disorders cluster by sociodemographic characteristics but this interaction is poorly understood. There is some evidence that people with mental health problems receive less screening and are less commonly diagnosed with cardiometabolic

disorders, yet they are more likely to die from these conditions. Prescribing is complicated by comorbidity: some medications may be detrimental to mental or physical health, some may be synergistic. In some instances, de-prescribing medication may be the optimal approach, but evidence for this intervention is unlikely to come from randomised controlled trials and needs innovative approaches using data from large electronic health record databases.

The supervisory team will work with the successful candidate to develop a series of specific research objectives in relation to the overarching aim of understanding this syndemic. These objectives will be tailored to the candidate's own interests but could include determining rates of diagnosis, polypharmacy, physical outcomes and mortality; clinical and cost-effectiveness; and specific instances of medicine optimisation and de-prescribing.

Approach:

This project will use data from two sources:

- 1.The Clinical Practice Research Datalink (CPRD).
- 2.The Clinical Record Interactive Search (CRIS).

In both cases, a cohort of individuals with mental health diagnoses will be identified, along with a general population comparison group. Analyses will include multivariable regression methods for binary, count and time to event data. Comparative effectiveness approaches may include within-individual study designs, propensity scores and instrumental variables.

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:

Some understanding of how to design cohort studies and the basics of comparative epidemiology

Experience using Stata, R or a similar data analysis software package

CLAHRC Research Area: Multimorbidity

Funding Notes:

Start date: 01/10/19

Duration: 3 years, full time

Stipend: £17,803

Institution: UCL

Enquiries email name and address:

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

For project specific queries, please contact: Dr Joseph Hayes: joseph.hayes@ucl.ac.uk