

Institute of  
Psychiatry  
  
at the Maudsley

BRC Nucleus  
Department of Psychological  
Medicine

Dr Johnny Downs  
Clinical Research Worker

Weston Education Centre  
10 Cutcombe Road  
London  
London SE5 9RJ

Tel: +44 (0) 20 7848 0778  
Fax: +44 (0) 20 7848 5408



27 September 2013

Katy Thorne  
FPSA Secretariat

Dear Katy

I would like to thank the FPSA for their generous funding that enabled me to attend the four day Practical Pharmaco-epidemiology course run at the London School of Hygiene and Tropical Medicine (LSHTM) in September 2013. The course was aimed at pharmacology researchers and industry regulators to help develop their knowledge of pharmaco-epidemiological concepts and methods, and gain insight into the application of pharmaco-epidemiology in pharmaceutical risk management. It is one of few programmes of its type in the world. I have included the course timetable to illustrate the topics covered.

The course has helped me get me up to speed with current pharmaco-epidemiology methods in particular the more advanced statistical techniques relevant to the field. I am a child and adolescent psychiatrist and clinical researcher based at the Institute of Psychiatry, King's College London (KCL). The course material was particularly relevant to my research, which involves the use of large-scale clinical databases to establish the psychopharmacological treatment outcomes of children and adolescents with neurodevelopmental conditions including Attention Deficit Hyperactivity Disorder and Autistic Spectrum Disorder. The material covered has helped me reshape my research study protocols in order to minimise the effect of bias commonly associated with non-randomised, observational studies of pharmacological effects. Part of the work I undertake uses large-scale anonymised datasets derived from child and adolescent mental health electronic health records (~34,000 individuals). A central theme of my PhD proposal relates to assessing the impact of medication on education outcomes. A key limitation of previous clinical observational studies that report on the effects of psychiatric medications, and a potential limitation of my project, is the effect of confounding by indication. This particular systematic bias occurs when treatment outcome of interest are strongly associated with the risk of initiating treatment. Ways to minimise this bias were extensively covered in the course; one technique was the use of multivariate analysis incorporating propensity scores, which I am looking forward to applying in my own research.

An additional benefit to the course was meeting potential collaborators both at the LSHTM and KCL, who, though working in separate medical disciplines, were studying the impact of medications on chronic conditions using very similar research methodologies. Pharmaco-epidemiological research groups are few and far between, so we hope to meet up in the coming months to establish common ground and discuss varied approaches in studying the functional impact of long-term pharmacological treatments.

The course has been a tremendous benefit to me in building my expertise in pharmaco-epidemiology. I am very grateful to the FPSA for supporting my research career by funding my attendance.

Yours sincerely

A handwritten signature in black ink, appearing to be 'JD' followed by a flourish.

Dr Johnny Downs  
MBBS MSc MRCPsych  
Clinical Research Worker, Institute of Psychiatry, King's College London