Project Details	
Project Code	MRCNMH25Ex Russell
Title	Assuming associations from old data- the case of ADHD and drug use
Research Theme	Neuroscience & Mental Health
Summary	Many research papers about ADHD include the sentence "ADHD is associated with increased risk of substance use". However, new analysis in UK datasets has shown no association between ADHD and adolescent drug or alcohol use. What is going on? Have we been getting it wrong for years, or are there societal changes impacting on young people with ADHD? In this PhD you will unpick whether or not young people with ADHD have an increased risk of using drugs and alcohol, and why (not).
Description	Society is increasingly recognising the importance of understanding how and why the human brain diverges from neurotypical development. Up to 7% of adolescents experience impairing symptoms of inattention, hyperactivity and/or impulsivity, which can be diagnosed as ADHD. Individuals with ADHD are at increased risk of poor health and lifecourse outcomes: better understanding of their positive and negative experiences is vital to improve health and wellbeing. An established body of research has found that ADHD is linked to increased risk of using drugs in adolescence. Scientists have theorised this could be due to increased risk-taking, or 'self-medication'. Given that adolescent substance use is known to raise risks for adult mental and physical health, and may explain some relationships between ADHD and adverse outcomes, understanding the current relationship between ADHD and substance use may lead to improving lifetime health for those with ADHD. However, when we recently explored this in a representative UK dataset, we were surprised to find no evidence of an association between ADHD and substance use. Now we want to know why. Was this just a spurious (chance) finding from one dataset, or has the relationship between ADHD and substance use changed over time? Recent advances also show that symptoms of ADHD may dip and then peak again repeatedly over time: perhaps these trajectories are related to substance use. This PhD project will explore this in depth. Research questions: 1. Is ADHD currently associated with an increased risk of substance (drug, nicotine and alcohol use) in teens and young adults in the UK and worldwide? 2. What cultural, political or sociodemographic factors might explain cross-cultural differences in this association? The student will be able to take these questions and adapt the suggested methods to take ownership of their PhD. There is choice in which substances to focus on and how best to conceptualise ADHD. They will be able to design their own Patient and Public Involvement. The key skills gained include: • Development of advanced epidemiological skills • Expertise in longitudinal analysis and relevant statistical software • Fundamental qualitative research skills

	• Introduction to interdisciplinary thinking, through integrating cultural and political perspectives (e.g. changes in drug policy) in the interpretation of findings • An understanding of pathways to translation and impact The student will conduct analyses of multiple international datasets, leveraging the Landscaping International Longitudinal Datasets index (e.g. the Millennium Cohort Study, E-Risk, the Adult Psychiatric Morbidity Survey, and the Mental Health of Children and Young People in England (MHCYP) Surveys, Pelotas). Analysis will focus on the association between young people's reported use of substances and their ADHD. Data available will allow consideration of key covariates e.g. receipt of medication for ADHD, co-occurring health challenges, protective factors and other risky behaviours. Methods such as latent class analysis will be used to explore changing symptoms over time and patterns of substance use. The supervisory team all have expertise in longitudinal data analysis, specifically around ADHD (Russell), substance use (Hines), time trends and service need (Newlove-Delgado). Alongside this, qualitative methods can be integrated. The student has the opportunity to explore mixed methods analysis, integrating qualitative explanations with data-driven quantitative findings. Use of linked administrative data could allow the student to explore health and education consequences of these trajectories. The findings from this PhD will provide new, up-to-date evidence on an important public mental health problem, with implications for policy-makers and those who support adolescents with ADHD, as well as those who support young people who use substances.
Supervisory Team	
Lead Supervisor	
Name	Dr Abby Russell
Affiliation	Exeter
College/Faculty	Health and Life Sciences
Department/School	Public Health and Sports Sciences
Email Address	a.e.russell@exeter.ac.uk
Co-Supervisor 1	
Name	Other Tamsin Newlove-Delgado
Affiliation	Exeter
College/Faculty	Health and Life Sciences
Department/School	Public Health and Sports Sciences
Co-Supervisor 2	
Name	Dr Lindsey Hines
Affiliation	Bath
College/Faculty	Faculty of Humanities and Social Sciences
Department/School	Psychology
Co-Supervisor 3	
Name	
Affiliation	
College/Faculty	
Department/School	