



## SHINE Research Highlight

### Sleep, circadian rhythms and mental health in schools (SCRAMS)

Sleep is important to both physical and mental wellbeing. The average person spends approximately one third of their life asleep, giving their bodies time to repair and their brain time to process information and memories.

Adolescents tend to require more sleep than adults, however, there is evidence that young people are not getting enough sleep and that the amount of sleep young people are getting now is less than it was 10 years ago. Lack of sleep among young people is linked to poorer mental wellbeing, and negative outcomes such as low mood, attention difficulties, impaired school performance and risky behaviour. Reduced sleep may be caused by a range of factors including social relationships, diet, physical activity and the use of electronic devices and social media.

With sleep playing an important role in young people's wellbeing, this could be a key mechanism on which to focus public health interventions aimed at improving mental health. However, at present, we have a limited understanding about the association between sleep and mental health, and there are few interventions aimed at improving sleep among young people. School-based interventions have the potential to reach a wide number of young people, but we need more information on how interventions for sleep and mental health can be delivered and evaluated at scale in schools.

### Investigating the relationship between sleep, light exposure and adolescent mental health

Last week saw the launch of the [Sleep, circadian rhythms and mental health in schools \(SCRAMS\)](#) project led by Prof Daniel Smith at the University of Glasgow. This project, funded by an MRC/AHRC/ESRC Engagement Award, aims to create a UK-wide cross-disciplinary research community to look at the complex relationships between sleep, light exposure and mental wellbeing, with a view to developing better school-based interventions for mental health in the future. The project will build on already well-established links with schools in Scotland (the Schools Health and Wellbeing Improvement Research Network, [SHINE](#)). SHINE Lead, Dr Jo Inchley is part of the SCRAMS research team, and the whole SHINE team is delighted to be a part of this exciting new research.

The SCRAMS team will work collaboratively with other research groups (including the Transdisciplinary Research for the Improvement of Youth Mental Public Health, [TRIUMPH](#)

network), young people, parents, teachers and policy makers to carry out a programme of public engagement and co-design and conduct pilot work on sleep and mental health that will inform future large-scale schools-based research.

## Young people's knowledge and perceptions about sleep and mental health

A key part of the SCRAMS project activities will involve working with young people to find out more about their experiences and attitudes towards sleep and mental health. Working in collaboration with [Sleep Scotland](#) and schools within [SHINE](#), SCRAMS will deliver a *Sleep Awareness Week*, involving a series of engaging activities that will be co-produced with pupils and schools at the start of the project, and may include ideas such as sleep diaries, sleep polls, meeting sleep scientists and recording sleep vlogs. Outputs from these activities will be used to inform the design of future research.

## The challenge of collecting data on sleep, light exposure and mental health in schools

One of the challenges of research about the impact of sleep, light and mental health on young people is being able to accurately and reliably record data about these measures. To address these challenges, the SCRAMS team plan to conduct a series of small-scale feasibility studies to find the most effective ways to collect data on sleep, light exposure, mental health and biological samples at scale in schools to inform the design of future larger-scale research projects.

These studies include:

Testing the feasibility of a novel wearable sensor for light in adolescents, which will capture their light exposure patterns, including natural and artificial light.

Collecting objective data on activity and sleep patterns, light exposure data and mental health data from school pupils across the North and South of Scotland during the winter and summer months to look at the effects of latitude and seasonal changes on these outcomes.

Evaluating the feasibility of assessing pupil mental health and sleep experiences at scale, by piloting measures of key cognitive domains and indicators of school experience using online assessments in class and collecting sleep-data using wrist-worn actigraphs.

Assessing potential facilitators and barriers to the collection of biological samples (such as saliva samples to test markers of light exposure and circadian rhythm) in schools, including consultation on issues of providing consent for this kind of research.

If you want to find out more about this research project, please [visit the SCRAMS website](#).

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