

Exploring the relationship between sleep and daytime challenging behaviour in children with profound autistic spectrum disorder (ASD)

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Background

Through research previously conducted at Sunfield we know that siblings identify sleep deprivation as their main area of concern (Conway & O'Neill 2003). Literature suggests an atypical sleep architecture exists in the ASD population but the body of literature available either fails to relate to the heterogeneous nature of our population or fails to focus upon children with profound ASD.

We know that differential diagnosis is important in children with profound ASD, particularly as there is a high level of co-morbidity with other conditions such as ADHD and mental health problems. We anticipate that sleep problems will correlate positively with daytime behaviour. Whilst it is acknowledged that in children with profound disabilities, sleep problems may not be the only factor to impact upon their level of challenging behaviour, research notes that sleep problems may be possible predictors of intensified symptoms of autism. Through targeted therapeutic intervention, we hope to reduce the amount of daytime challenging behaviours through improved sleep patterns.

The aim of the project

- (1) To explore the extent to which poor sleep correlates with elevated levels of daytime challenging behaviour in children with ASD.

- (2) To explore the extent to which therapeutic interventions improve sleep in children with ASD.
- (3) To explore the impact of improved sleep on levels of daytime challenging behaviour in children with ASD.

Method

Through consultative collaboration with the night staff we will identify a cohort of children who potentially have sleep related problems. We will use individual single subject case study design, employing objective and subjective measures, to investigate the extent of sleep problems and daytime challenging behaviour.

Sleep problems will be measured through:

- actigraphy (a device worn 24 hours a day which is similar to a wrist watch). The main measure used from the actigraphy data will be the measure of sleep efficiency
- sleep logs
- sleep diaries

Challenging daytime behaviour will be operationalised and measured through:

- frequency chart – completed in both settings (residential home and school). This will give a daily count for each child of the number of incidents of challenging behaviour.
- The behaviour problems inventory

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