

Derwen College

Acoustic Monitoring Case Study

Enhancing Night-Time Care
Through Acoustic Monitoring
and Integrated Digital Systems



Upgrade your care environment with our cutting-edge solutions

Since 2024, Derwen College has been actively developing and embedding the use of acoustic monitoring technology across our residential settings, as part of our ongoing commitment to person-centred and responsive care. This initiative forms part of our wider digital transformation strategy, aimed at harnessing innovative solutions to improve both the quality of care and the working experience of our staff. Previously, waking night staff conducted hourly room checks to ensure residents' wellbeing. While essential for safeguarding, these checks often reduced privacy, heightened anxiety, and disturbed sleep, particularly for individuals with autism, epilepsy, or sensory needs.



Furthermore, most of these checks did not require any action, raising questions about their effectiveness versus impact. To address these concerns, the College introduced acoustic monitoring devices that detect sound-based anomalies, and alert staff only when specific thresholds are triggered. These triggers are based on individualised sensitivity levels, such as signs of distress, restlessness, or medical concerns.

"As Senior Waking Night Support Practitioner, my primary responsibility is to ensure the safety and wellbeing of students during night hours. This included undertaking physical hourly checks for some students, which would often lead to disturbed sleep and an impact on the following day. With the introduction of new technology, we can monitor for signs of distress or unusual activity and provide immediate intervention as needed."

Leanne Bailey
Senior Waking Night
Support Practitioner



01604 603456

www.adaptivecare.co.uk

sales@adaptivecare.co.uk



Measurable Impact

The effectiveness of this approach is reflected in the significant reduction in unnecessary room entries. Following refinement and continuous use of the system, night time checks reduced significantly over an eight month period. The average over the first four months worked out at 17 physical checks per night, compared to three per night for the last four months. In the first four months, the data primarily captured general sounds such as snoring, white noise machines, and other ambient noises. After refining the sensitivity levels, the recorded interactions became more focused and detailed, including responses to epilepsy alerts, seizure activity, and calls for help. The chart below shows the reduction in checks over the course of eight months.

Additional benefits

Staff Efficiency

Night teams are now able to focus on individuals who truly need support, improving care quality.

Improved Sleep and Mood

Students experience more settled sleep patterns and reduced anxiety at night.

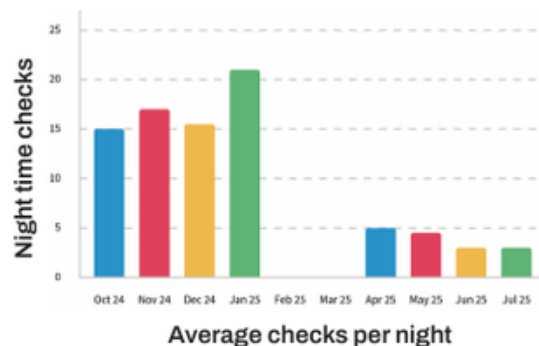
Data Accuracy

Recent integration with our digital care management system (Nourish) has allowed alerts and responses to be automatically logged, eliminating manual entries and ensuring real-time documentation.

Informed Planning

Acoustic data is used to identify trends, such as frequent waking or restlessness. This then informs adjustments to routines, medication reviews, or environmental changes.

These changes allow staff to focus their interventions, rather than performing routine checks on all residents, regardless of risk or need.



01604 603456

www.adaptivecare.co.uk

sales@adaptivecare.co.uk

