



SLEEP DISTURBANCES IN CHILDREN WITH SPECIAL NEEDS

*Anum Shumail, Muhammed Zia, Orla Flanagan, Irfan Ahmed

Early Childhood and School Age Services, Brothers of Charity Galway, Republic of Ireland.

Article Received: 17 August 2026

Article Revised: 07 September 2026

Article Published: 01 October 2026



*Corresponding Author: Anum Shumail

Early Childhood and School Age Services, Brothers of Charity Galway, Republic of Ireland.

DOI: <https://doi.org/10.5281/zenodo.23013690>

How to cite this Article: *Anum Shumail, Muhammed Zia, Orla Flanagan, Irfan Ahmed (2026). Sleep Disturbances In Children With Special Needs. World Journal of Advance Healthcare Research, 10(10), 156–158.
This work is licensed under Creative Commons Attribution 4.0 International license.

Sleep problems are common in general population at all ages, but they are more common in children with intellectual and learning disabilities, somewhat in relation to degree of disability. Sleep problems are associated with poor communication and self help skills, poor development and academic progress.

Interestingly, there is no clear and widely accepted definition of “learning disability.” There are at least 12 definitions that appear in medical literature. The most comprehensive definition so far used is that of the American Association of Mental Retardation, which is commonly used worldwide. It defines Mental retardation as “significant impairment of intellectual and at least two areas of adaptive functioning before eighteen years of age.”^[1]

Because of failure of recognition and limited referral of cases for medical attention, it is not known with accuracy how many people of any age suffer from sleep problems. It has been estimated that at least 20-30% of children from infancy to adolescences have sleep problems that are considered significant by them or their parents. Numerous studies have described the prevalence of sleep disturbances among children with learning and intellectual disabilities. Quine et al described that 51% of children had settling problems and 67% had frequent night waking.^[2] Wiggs et al found severe sleep problems in 43% of intellectual disabled children. Sleep problems are more common in children with learning disabilities. Reported sleep problems include difficulties in induction of sleep, maintaining it and waking early morning. We surveyed the prevalence of sleep disturbances in children with learning disabilities. In this study parents were surveyed to investigate the frequency, pattern and nature of sleep problems in children with learning disabilities.

METHODOLOGY

A question-based survey was applied. Participants were recruited through the records of patients attending early childhood and school age services of the Brothers of Charity, Galway region over period of one year from the age ranging between 0 to 18 years. The participants were

the parents and carers of individuals with learning disabilities. This study was limited to this age cohort because of ease of access to these children and their families and frequent occurrence of sleep disturbances that affected this group of patients and can seriously affect the quality of life for patients and their parents.

The questionnaire was developed and designed to identify and retrieve demographic details, scale of sleep disturbances, and extent of effect of sleep disturbances on parents and siblings, details of medical and behavioral treatment. Sleep disturbance was assessed by the frequencies of (i) difficulty getting to sleep (ii) night time waking (iii) early morning waking (iv) Daytime naps and behavior. Data was entered into database, transferred on excel spreadsheet and then exported to SPSS for analysis. Descriptive statistical analysis was conducted on all the appropriate variables, followed by examination of inferential statistics.

Descriptive Statistics

A total of 136 sleep questioners, which were sent to parents, 77 questioners were returned, which, constitutes a response rate of 56.6 %. There were 30 boys (39%) 46 girls (61%) described in the survey (sex was not mentioned in one questioner) and their mean age was 6.34 years (Range = 1- 18 years; SD = 4.1). Average age

was 7.94 years for males and 4.79 years for females. Since the data is not normally distributed, we used non-parametric test (Mann Whitney u test). It was noted that the mean rank for females was 33.72 and for males 41.62. The mean age rank for males is greater than females but is not statistically significant (p value = 0.123) and shows that sleep problems are more common in males than females.

Out of the total 77 cases studied, 96.2 % had Learning disability, 28.1% had physical disability as well. The causes of children's sleep problems were grouped into five broad categories: Down's syndrome (32.5%); Autism (40.6%); ADHD/ADD (5.9%); other known diagnosis, including cerebral palsy, epilepsy (11.4%) and other chromosomal disorders (9.6%).

Out of 77 responders, 32 (42%) had at least one or more type of sleep problem, either most nights or every night. 45 (58%) children studied had no or infrequent sleep problems. The type of sleep problems found were difficulties falling asleep (37.5%), difficulties staying asleep (87.1%) and waking early morning (70%). In our study it was noted that difficulty staying asleep was the most common type of sleeping disorder, followed by waking early morning and least common was difficulties falling asleep. It is interesting to note that the prevalence of various types of sleep problems is high in our study when compared with various other published reports. For example, Bartlett *et al.* (1985) studied 214 children and reported difficulty staying asleep (56%), difficulty going to sleep (56%). In another study by Quinn *et al.* (1991) 200 children between 1 to 18 were studied, 51% of the parents reported settling difficulties, while 67% reported frequent night waking.

It was also interesting to note that waking early morning was reported by 70% of parents and average time was 6.00 AM which is similar to the time mentioned in various other studies. 33.3% of children had a significant degree of daytime behaviour problems following nights with disturbed sleep. The daytime behavioural problems reported were irritability, lethargy, hyperactivity, excessive screaming, aggression, temper tantrums, and increased frequency of seizure activity.

DISCUSSION

This study shows that sleep problems are common in children with learning disability and these results corroborates other epidemiological studies indicating that sleep problems are more common in children with learning disability. In our study sleep problems were found in 42% of responses and this is similar to the reported prevalence in various other studies. A survey by Wiggs found severe sleep problems in 43% of intellectually disabled children.^[3,5] Other studies have shown even higher prevalence of sleep problems in this group of children. Bartlett found prevalence as high as 86% of children less than 6 years, 81% of 6-11 years old and 77% of children aged 12-16 years.^[4] These problems

appeared to be most prominent in maintenance of sleep (87.1%) than falling asleep (37.5%). An important contribution of this study is the demonstration of the fact such sleep problems exceeds more than those present in general population. Children with sleep problems were more likely to have day time behaviour problems (33.5%) and reported that irritability, lethargy, hyperactivity, excessive screaming, aggression, temper tantrums, and increased frequency of seizure activity was reported more frequently in these children. Therefore it is not surprising that sleep problem in general population and in those with learning disabilities have shown more daytime behavioural problems and causes disruption and extreme management problems for the parents throughout 24 hours period.^[7,9] Several studies have shown a relationship between sleep problems and daytime behavioural problems. Disrupted night time sleep has been reported to adversely affect the daytime behaviour and leads to gradual progression from sleep disruption to sleep problems, daytime disruptive behaviour and impairment of daytime performance.

The sleep problems at night also placed parents and caregivers of these children on increased daytime demands. Parents (90.3%) of these children reported that they themselves did not get enough sleep and had negative impact on the family life, which was graded significant in 50% and very significant in 34% of cases. In a study by Quinn (1991), 32% of parents reported that they rarely got enough sleep themselves and had significant problems during the day. In another study by Joanna (2007) children's sleep problems were associated with poor maternal health, depression was reported more often in this study in mothers without past history of depression.^[8]

The majority of children had a set night time routine (80%) and 76.7% of cases used some kind of intervention and 31.3% of cases reported use of some form of drugs to tackle the sleep problems. Behavioural therapy used by most of the parents (76.7%) was only limited to bed time scheduling, strict bedtime routine. These families did not use other behavioural treatments. Sophie *et al* (2005) reported that sleep problems in children would reduce after the behavioural intervention and such intervention like extinction, graduated extinction were both rapid and effective for treating sleep onset and maintenance of sleep in children with different range of disabilities.^[4,10]

These results suggest a need to help these children and their parents with interventions, which are effective and practical. In order to do this, sleep problems should be enquired about routinely during assessment of these children by taking a proper sleep history. Health professionals and parents of these children need to be more aware of these problems and up to date with the treatment options available to them. A collaborative management approach is more efficient for helping families and children suffering from sleep disorders.

Type and severity of the disease influence the therapeutic approach. We need to try to establish a stepwise approach and need to push for designated paediatric sleep clinics, This emerging field of paediatric sleep medicine has the potential to provide the high quality clinical therapy, research and teaching needed to improve the specific needs of this population.

REFERENCES

1. American Psychiatric Association (1994) *Diagnostic and statistical manual of Mental Disorders, 4th Edn.* Washington DC: AP.
2. Quine L, Severity of sleep problems in children with severe learning Difficulties; *J community and applied social psychology*, 2: 247-268.
3. Partinen, M., Hublin, C. (2000), Epidemiology of sleep disorders: Kryger, M. H., Roth, T., Dement, W. C. *Principles and practice of sleep medicine. 3rd Edn.*
4. Pinz, P., Sleep patterns in the healthy aged: Relationships with intellectual Functions, *Journal of Geronitol*, 32: 179-186.
5. Stores G, Wiggs L. Sleep disturbances in children and adolescents with Disorders of Development: Its significance and management; 2001, Cambridge. Cambridge university press.
6. Bartlett, L. B., Rooney, V. (1985), Nocturnal difficulties in a population of mentally handicapped children. *British Journal of Subnormality*, 31: 54-59.
7. Quine, L. (1991) Sleep problems in children with severe mental handicap. *Journal of mental deficiency research*, 35: 269-290.
8. Joanna M, Harriet H, Pollyanna H, Belinda. Adverse association of infant and child sleep problems and parental health, *Pediatrics*, 2007; 119: 947-955.
9. Wiggs L, Stores G (1996). severe sleep disturbances and daytime challenging behaviour in children with severe learning disabilities. *Journal of intellectual Disability Research*, Dec 1996; 518-528.
10. Sophie W, Amanda R Jan M, Behavioural treatment to reduce sleep problems in children with autism or fragile X syndrome. *Developmental Medicine and child Neurology*, 2005; 47: 94-104.