



Cystic Fibrosis Research News

Title:

QUALITY OF LIFE AND MOOD IN CHILDREN WITH CYSTIC FIBROSIS; ASSOCIATIONS WITH SLEEP QUALITY.

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What was your research question?

We aimed to investigate the relationship between sleep quality and mood and health-related quality of life (HRQOL) in a group of children and adolescents 7-18 years with cystic fibrosis (CF) and stable health. We also compared the CF data to healthy control children (healthy children selected to resemble the children with CF in age and other measurable factors).

Why is this important?

Sleep disturbance in children may be harmful to their mental health and quality of life. Studies of people with CF show that sleep problems are more common than in healthy people. There is limited research however, into the relationship between sleep disturbance and mood and HRQOL in children and adolescents with CF. It is important to understand the impact that sleep problems have on health and well-being in this group, as many will be treatable. Currently however, screening for sleep problems is not a standard of care.

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What did you do?

We studied sleep in the home for 14 days in children 7-12 years old and adolescents 13-18 years old with CF who were at their normal baseline health and a group of healthy age-matched children and adolescents without CF. We measured sleep quality using “actigraphy” with a sleep diary and daytime sleepiness with a self-report questionnaire. Actigraphy involves the child wearing a wristwatch-like device that monitors movement to determine wake versus sleep. We also assessed mood and HRQOL using age-appropriate questionnaires. With these data, we were able to assess the associations between sleep quality and daytime sleepiness with depression scores and HRQOL.

What did you find?

We found that children (7-12 years) with CF had poorer sleep quality, more sleepiness and lower mood than healthy control children. Additionally, we found that a marker of sleep quality; “sleep efficiency” was worse in those with higher depression scores and that elevated sleepiness was related to lower mood and worse HRQOL. Adolescents (13-18 years) with CF also had poorer sleep and more sleepiness than healthy control adolescents, but no significant difference in depression scores. In this age group, reduced sleep quality and daytime sleepiness appeared to impact negatively on multiple aspects of HRQOL including emotional, physical and social well-being.

What does this mean and reasons for caution?

In this group of clinically stable children and adolescents with CF poor sleep quality and excessive daytime sleepiness were related to lower mood and HRQOL, however the relationship differed between the age groups. Our findings support those in studies of adults with CF and it may be that we didn’t find a relationship between sleep quality and mood in the adolescents because our study population was too small. The limitation of this study is that due to the study design we can’t prove that poor sleep causes depression and lowered HRQOL but only that they’re associated with poor sleep.

What’s next?

Future studies need to focus on examining sleep quality in children with CF over time to further understand the broad health effects of sleep disturbance. Future research also needs to assess whether optimising sleep in children and adolescents with CF can improve health outcomes including mood and HRQOL.



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