Insufficient Quality Sleep Is No Laughing Matter

By Gila Lindsley, PhD, FAASM

Sufficient quality sleep on a daily basis is a biological imperative! So critical to optimal function and even survival is this, that clearly defined periods of sleep EACH DAY are literally programmed into the human genome. It is a daily time-out when internal "machinery" can reconstitute literally every system of the body. We cannot run on fumes for any extended period of time. Nor can we "negotiate" with our bodies, "explaining" that we just don't have time for enough sleep on a daily basis.

The number of hours required for youngsters in middle and high school is a full ten hours! Daily! Sleeping perhaps 5-6 hours on school nights (if that), then attempting to make up the lost sleep on week-ends, simply does not cut it. Yet, among the middle school and high schools youngsters referred to me either for help with emotional problems and/or sleep problems, the vast majority do not get anywhere near the amount of sleep required. This is reflected in national studies. The greater the daily sleep insufficiency, the greater the magnitude are the symptoms.

CONSEQUENCES OF NOT GETTING THE REQUISITE NUMBER OF HOURS OF QUALITY SLEEP ON A DAILY BASIS?

All systems are affected. From the nervous system and endocine system, through all the basic physiological systems such as the cardiovascular, gastrointesitinal, hepatic (kidney) and the energy/glucose management system all the way down to the all-critical immune system are impacted.

Pertinent to a school aged population, emotional stability and cognitive sharpness are progressively more compromised the greater the deficit in sufficient quality sleep. Chronic partial sleep deprivation is a powerful contributor to emotional disturbances such as severe anxiety and depression (often with suicidal ideation); to cognitive problems such as what appear to be learning disabilities, or appear to be symptoms of ADHD/ADD. Grumpiness through outright anger and belligerence to even slight provocations is par for the course. I will assume the parents reading this can identify the kinds of consequences such symptoms produce in all spheres of a youngster's life: school academic performance, social problems, disruption of the family dynamic, suspicion of drug or alcohol use (or actually turning TO these to offset truly unpleasant symptoms) is not uncommon. Loss of perspective, engaging in risky behaviors..... the list just goes on and on.

So – the question: What can be done to INSURE that our youngsters do get what is required in the way of sleep? There are many behavioral things that will make the difference – things we DO have control over. There are unquestionably obstacles to accomplishing these, no question some of which are significant. Nonetheless, we nonetheless simply CANNOT allow them to interfere with the all important biological requisite that we in fact do acquire sufficient quality sleep on a daily basis. Rather, it is imperative that a good problem solving approach be brought to bear to figure out HOW to decrease the demands on what should be a full sleep period. Incredibly important is that both the youngster, the parents, AND the social/school systems all be motivated to bring this about.

WHAT WE CAN CONTROL:

1. Time management. If we hold sleep to be sufficiently important, we explicitly and deliberately can allocate a block of time every single day, at the same clock time, as the sleep period, then build the rest of our schedule around it! Most effective, in my

Continued on next page

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Continued from previous page

experience, is to block off the selected time block in a schedule book, every single day, as a time block that cannot be violated by any other plans. It is sacrosanct! We can then see what needs to be altered to actually make that possible; how successfully to address what could be obstacles to doing so while at the same time preserving what is important to the school child.

2. Sleep hygiene factors we can have control over: a) Make sure to address the most stressful things in a day long before bedtime so they don't interfere with sleep; b) Tie up loose ends from the day by several hours before bedtime – including making a plan for when and how to deal with things that are very big, so we can feel restful at bedtime, secure in the knowledge that important things WILL be taken care of.; c) Refrain from chemical stimulants such as caffeine, certain medications, other stimulating chemicals temporally proximal to bedtime.

There is an entire field called Behavioral Sleep Medicine which has many publications, including some excellent texts. I would be glad to provide this information if you care to email me about them since in principle this is straightforward, in application can pose numerous non-trivial difficulties.

BIOLOGICALLY BASED SLEEP PROBLEMS NOT UNDER OUR BEHAVIORAL CONTROL:

If, despite genuine correction of behavioral patterns as above the youngster is still unable to accumulate a sufficient number of hours of quality sleep on a daily basis, the possibility of a biologically based sleep disorder would then be taken into consideration. Following are the three most common in a school aged population, each of which does require assistance of a qualified health care professional:

1. Delayed Sleep Phase Syndrome: This is a disorder created by a mismatch between a perfectly normal endogenous phase delay that is mismatched to the externally imposed behavioral schedule. To explain: Some of us march to the same drummer as the bulk of the normative population – we are normophasic. No problem here. Others of us are early birds – phase advanced – whose DNA is programmed for far earlier wake up and sleep onset times than the normative population. Other than perhaps being seen as "wet blankets" at events they attend that run way beyond their biological sleep onset time, there is rarely a problem for this group.

Delayed Sleep Phase Syndrome is by far the most prevalent problem in a school aged population: Problems, however, DO arise for the students who are biological night owls – those who are phase delayed. For instance, school schedules in particular are mismatched with the genetic programming of their biological clocks. At 6 or 6:30 AM when they must wake up to get to school on time, they still have several hours of sleep to go. They are, therefore, persistently sleep deprived during the school week. Because this set of individuals will become symptomatic under those circumstances, the condition is referred to a Delayed Sleep Phase Syndrome.

Fortunately, the biological clock can be "reset" in the space of only 3-7 days IF it is recognized that the person is, in fact, biologically phase-delayed. Oh how important it is to recognize this in our school age child.

2. Obstructive Sleep Apnea (OSA): By now, there has been so much publicity about OSA – the "snoring disorder" – and sleep disorders centers so likely to diagnose a person with OSA, that I suspect almost all the readers of this column will have heard about it. In brief, this is a disorder of breathing during sleep, with LOUD snoring combined with either daytime sleepiness or paradoxically "hyper" behavior during wake time the most obvious symptoms.

Regarding treatment, once it is recognized as a possibility and accurately diagnosed, in the case of young people the cause is generally either a a mechanical obstruction of the airway (usually, very large tonsils or adenoids, chronic nasal congestion) and/or being at least 10% greater in weight than the height/bone structure norm. These are typically correctable. I have repeatedly been surprised at how quickly sleep normalizes; and correspondingly how quickly symptoms disappear; with treatment of these.

3. Narcolepsy: The term, literally, means "sleep seizures", implying that it is some kind of seizure disorder! It is not, though. Not at all. Rather, it is now known that it is caused by one neurochemical system in the brain (the hypocretin system) actually degenerating and therefor no longer being functional.

Median age of onset of narcolepsy is about 10 or 11 years old. Symptoms include not only excessive and often disabling daytime sleepiness, but also poorly sustained nighttime sleep and other ancillary symptoms, especially something called cataplexy. Cataplexy is characterized by the partial or complete loss of muscle tone, generally in response to an emotional stimulus – like laughing (!) or anger; and during which the person is completely awake, but unable to use any muscles, including the muscles of speech. Professionally I am a member of the Medical Advisory Board of an organization called Narcolepsy Network and have had significant experience with youngsters who – to everyone's relief – were finally diagnosed with Narcolepsy. Once recognized, and accurately diagnosed, treatment is available. Of equal importance to treatment is support, now available thru the Network and thru several other Narcolepsy organizations. They offer support groups for the youngsters AND for their families to help them learn the "tricks of the trade", how to live a normal and happy life, the workarounds that by now are well articulate in professional literature, in sleep disorders literature, and in on-line blogs.

TAKEAWAYS:

1. Sufficient quality sleep on an everyday basis is truly critical to a healthy life in terms of mind, body and spirit.

2. There are some factors interfering with sufficient quality sleep daily that can be brought under control. Overcoming the obstacles to bring this about can be a complex process, but ultimately doable, and produce such important results.

3. Three true sleep disorders, biologically based, have been identified. These do require accurate diagnosis and then intervention by qualified professionals.

QUALITY SLEEP IS NOT A LUXURY IT IS A BASIC NEED!

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