Relationship between **FEEDING** and **SLEEP** in children

Health workers don’t always pay enough attention to sleep disorders, frequently seen in young children. Although giving too much importance to such disorders can lead to family anxiety and unnecessary treatment, such disorders may persist or worsen if insufficiently taken care of.

The most frequent form of sleep disorder results from a “misunderstanding” about how to address the infant’s sleep needs. Such a situation arises from birth, but the child’s age at the initial consultation is highly variable and can involve the entire preschool period. Most parents try to satisfy their child’s needs. In most cases however, the parents may have habits and behaviour that promote the persistence of the sleep problems. The child falls asleep in the mother’s arms, or in the parents bed, or while drinking from a bottle and is then carried into his/her own bed. After one or two hours the child wakes up spontaneously, does not recognise the environment present at the time the child fell asleep, and cries in an effort for the parents to restore the initial conditions. These children are sometimes carried around, brought to their parents bed, taken for a drive, or are given over 2 litres of water or milk to drink during the night.

The is also recommended that the sleep conditions present at the time of sleep onset must be adjusted so that the child can become independent and fall asleep without any outside help, both in the evening and during the night. A regular ritual like procedure at night time is strongly suggested. The parents should gradually leave the child alone for longer periods of time until he/she stops crying and falls asleep. A similar attitude is adopted for night time crying. The child’s behaviour usually normalises within a week.

Physical causes for sleep disorders: Feeding difficulties

Food intolerances and allergies

Food intolerances and allergies account for about 10% of severe and long lasting forms of insomnia or sleep disorders. Intolerance to cow’s milk is the most frequent form of intolerance before the age of 3 years. Some children manifest no clinical sign of allergy, apart from continuous day time restlessness and fragmented sleep. In some families, a positive history is found of atopy, diarrhoea, frequent changes of feeds, skin irritations, eczema as well as frequent ear nose throat or respiratory infections. The child’s sleep is markedly brief (3-5 hours per night). Sleep is accompanied by profuse sweating.

The suspicion of food intolerance is strengthened when the child’s sleep pattern improves some 3 4 weeks after the elimination of all cow’s milk proteins from the child’s feedings. Similarly, improvement in sleep can be
seen when a nursing mother eliminates all forms of milk from her own diet. The diagnosis is confirmed when in somnias reappears following the reintroduction of even small quantities of cow’s milk in the child’s feed. Preferably these challenges should be blind, or double blind to avoid any subjective interpretation of the child’s behaviours.

Changing the baby’s feed must always be done in consultation with the paediatrician of primary health care sister

Errors in the child’s diet:

• Extended maternal breastfeeding
After the age of 12 months, some breastfed infants still demand night feeds. These feeds are usually not motivated by a nutritional need, but simply represent a form of misunderstanding in dealing with the child’s need for sleep. A gradual reduction in the amount and frequency of feeds offered at night will gradually normalize the child’s sleep

• Insufficient Food intake
When the amount of feed is insufficient the child becomes restless and cries due to hunger and thirst. As a result of the inadequate water intake, the stools are hard; the child is constipated, colicky, crying and agitated. When the child presents with constipation due to insufficient food intake the following can be done: Ensuring frequent small feeds especially if they are over the age of 1. Reduce the number of milk feeds by the age of 1 year children should be having about 500ml of milk a day. Children should have free access to safe, clean drinking water. Milk with special ingredients like pro or prebiotic will also help to soften the stools. Pre and probiotics helps to increase the number of good bacteria in the large bowels / colon and thereby softening stools and adding faecal bulk, helping to alleviate constipation.

• Excessive meal size
This often happens when a child younger than 6 months of age receives less than 5 meals per day, the amount of each meal is consequently increased; an excessive quantity of liquids promotes reflux from the stomach into the oesophagus with the consequent development of regurgitation and reflux. Therefore, when a child frequently regurgitates and cries at night, the question should be raised whether the content of the feeds are not too large and the number of feeds insufficient (less than 5 per day).

• Imbalance in the types of feeds

Inadequate fat in the diet
Sometimes parents reduce the amount of fat in the diet for their children to prevent the possible development of obesity or cardiovascular problems. This is inappropriate for children younger than 3 years of age, due to the high energy requirements because of their fast growth rate. During the early months of life fats should represent at least 50% of their total calorie intake. (Fat account for 53% of the energy content in breastmilk). Children 1-3 years of age still require about 40% fat to ensure optimal energy supply. Parents often overly limit the amount of fat by replacing whole milk with skimmed or low fat milk, lunches are provided with out any butter or other fats.

Fat helps to contribute to slow down digestive transit. If maintained over 48 hours a low fat diet could contribute to the development of diarrhoea. Inadequate fat in the diet is also related to the development of sugar related flora, responsible for progressive fermentation of the intestinal content and the subsequent release of gas. The child develops abdominal bloating, colic and sometimes diarrhoea. These digestive problems may lead to frequent night time awakening. If the child’s diet is corrected the digestive and sleep problems are normalized within 2-3 days.

Excessive protein intake
The need for water is increased if the child is given excessive amounts of protein. The breakdown of these proteins leads to the formation of urea and other components that are eliminated in the urine. Their elimination is associated with the loss of large amounts of water. The child becomes thirsty, wakes up and cries for water. Most parents think the child is hungry and offer an additional bottle of milk. The child’s thirst is momentarily diminished, but at the cost of a new protein load, responsible for an additional loss of water through the urine. Thirst and night time crying soon develop again.

Such children wake up frequently and loose a large volume of urine during the night. In addition, because of the bacterial breakdown of the proteins, these infants are frequently found to be colicky, with soft and malodorous stools. If the amount of protein is reduced, the sensation of thirst diminishes. The need to drink at night decreases and it becomes easier for the parents to modify their child’s sleep behaviour.

Inadequate energy intake and sleep disorders
The diet may contain an imbalance in fat, sugar or protein. It may also not provide a sufficient number of calories all these factors combined can result in night time wakening.

Most sleep disturbances in young children are benign, and that medical and psychological interventions are rarely needed. However, one should keep in mind that a child’s feeding both by its quality and quantity influences sleep. Attention should therefore be given to these easily corrected aspects of the child’s daily life.

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