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THE BRIDGE BETWEEN HOPE AND DESPAIR: SCREENING FOR SLEEP DIFFICULTIES

E.J.Cossman once said that "The best bridge between despair and hope is a good night's sleep."
Poor sleep is a common symptom, often overlooked or not fully managed. There can be multiple causes of poor sleep and if incorrectly managed at the outset, may become a self-perpetuating problem, and increasingly difficult to treat. Clinicians should be vigilant for signs that patients are not sleeping enough and have a systematic approach to finding and treating the cause rather than only the symptom.

ASSESSMENT OF POOR SLEEP:

A good history is vital. Key points include:
Onset – chronic/acute?
Recurrent/new problem?
Duration and quality of sleep - Not everyone sleeps eight hours. Change in duration of sleep is a better indication of inadequate sleep than asking how many hours they sleep.
Trigger – Was there a stressor; environmental factors (e/g: noise or shift work); change in medication or new illness?
Environmental Causes - Do they work long hours and have limited time to sleep. Is there a new baby crying, a snoring partner or a broken bedspring? Ask about shift work as disturbances in the

natural circadian rhythm may result in patients being unable to fall asleep at the usual time or waking up late. This does not only occur in shift work but is a common occurrence in shift workers.

Medical causes:
- Chronic pain or discomfort
- Restless leg syndrome
- Difficulties breathing, e.g. obstruction in the upper airway (tonsillitis, rhinitis etc)

Many such difficulties overlap with poor quality of sleep. Chronic obstructive pulmonary disease, obstructive sleep apnoea, nocturnal seizure disorders or increased urination are just a few medical causes to screen for. Psychiatric illness, such as depression and anxiety, commonly present with sleep difficulties. In bipolar disorder with mania/ hypomania there is a reduced need for sleep with decreased sleep in the absence of feeling tired.

Recreational/Illicit Substances and Medications:
- Substances, such as cocaine
- Alcohol may help people to fall asleep quickly but reduce overall quality of sleep.1
- Caffeine.
- Some prescription medications, such as methylphenidate
- Medications containing pseudoephephedrine and even other medications such as prednisone.
- Conversely, discontinuing substances or medication that is sedating, such as benzodiazepines or opioids

As people age the quality and duration of sleep may be adversely affected.
Differential Diagnoses: Patients may also be getting enough good quality sleep but feel tired during the day. There are many causes for this but common causes of fatigue such as anaemia and hypothyroidism should not be missed. Psychiatric illness such a depression may also result in daytime fatigue or tiredness. Again, sedating medications may be causing excessive tiredness. Narcolepsy may also result in sudden "sleep attacks" during the day.
Physical Examination should be guided by history but be aware of metabolic syndrome; respiratory and cardiac disease, goitre or pallor.
Useful tools in monitoring sleep may include sleep diaries; tracking sleep (actigraphy) using devices such as smart watches and rating scales such as the Epworth Sleepiness Scale.

THE LESS OBVIOUS SIGNS AND SYMPTOMS OF NOT ENOUGH SLEEP

Patients often clearly describe difficulties with sleep such as not being able to fall asleep, stay asleep or wake up easily. They may report daytime tiredness, needing naps or struggling to stay awake despite their best efforts.

Change in duration of sleep is a better indication of inadequate sleep than asking how many hours they sleep.

This is concerning if it interferes with work or studies and may endanger others, such as if a truck driver falls asleep while driving. There are however subtler signs of poor sleep that patients may present with where sleep should be further investigated as it is not the presenting problem.
Difficulties with Weight Loss/ Obesity: There is a bidirectional link between sleep and Hypothalamic-Pituitary-Adrenal Axis (HPA Axis). Disruptions of the HPA Axis, e.g. by administering high dose steroids, may result in poor sleep. Poor sleep may also result in disruption of the HPA axis. Sleep inhibits cortisol secretion and poor sleep may result in abnormal cortisol levels. Sleep is important in regulating metabolism and glucose homeostasis and poor sleep may therefore cause difficulties with weight loss or predispose to obesity.[3] Poor sleep is associated with cravings for fatty/carbohydrate-rich food and therefore poor sleep is a risk factor for weight gain not only through endocrine effects on metabolism but also as poor sleepers may be at risk of making unhealthy food choices.[4]

Poor results with Exercise:
Similarly, sleep affects metabolism through cortisol, glucose homeostasis and affects levels of hormones such as growth factor. Poor sleep may result in suboptimal results when training at the gym to improve muscle bulk or endurance.

Insulin Resistance and Diabetes Mellitus II:
Disruptions in the HPA axis may result in changes in hormones involved in glucose regulation. Poor sleep is a risk factor for insulin resistance and may contribute to poor control of diabetes mellitus. There may be a cyclical nature to symptoms. E.g. Diabetes Mellitus is associated with poor sleep but may worsen sleep through mechanisms such as pain from peripheral neuropathy.

Hypertension and cardiac disease:
Common risk factors exist for poor sleep and hypertension/ cardiac disease e.g. smoking results in direct increased vascular risk but also other complications, such as Chronic Obstructive Pulmonary Disease, which then affect sleep. Similarly, obstructive sleep apnoea is associated with cardiovascular and metabolic risk but may be due to obesity, a consequence of poor sleep. Lastly, increased sympathetic output has been associated with poor sleep and may increase risk of hypertension.

Reduced Immunity:
Cortisol dysregulation affects immunity. Studies have also shown abnormalities in pro-inflammatory cytokines, such as TNF-α and interleukin 6. Disruptions in immune response may result in reduced immunity to infectious disease as well as increasing cancer risk.

Sleep deprivation may result in increased oxidative stress which also increases cancer risk.

Reduced Concentration or Memory:
Sleep is hypothesised to be important in consolidation of memory; however exactly how this occurs is still debated. Irrespective of the mechanism, poor sleep has been associated with deficits in memory. Attention is affected by sleep and inadequate sleep may even mimic attention-deficit-hyperactive disorder. Poor sleep may affect decision making and judgement. The effects of poor sleep are even demonstrable on imaging studies, with poor sleep being associated with changes in multiple areas of the brain such as the hippocampus and prefrontal cortex.

Depression and Irritability:
Mental health and sleep are inter-related. Poor sleep may be a symptom of depression, anxiety or bipolar disorder to name a few. Sleep deprivation may however worsen mood and people who are sleep deprived may report low mood, tearfulness and irritability. Poor concentration and cognition due to poor sleep may also leave people feeling overwhelmed. If sleep is disrupted enough, poor performance at work and poor decision making may result in functional impairment which in turn may affect mood negatively.

Sleep is a vital for maintaining physical and emotional health and functionality. Management of poor sleep involves not just treating the symptom but also the underlying cause. While judicious pharmacotherapy may be indicated for acute relief, chronic benzodiazepine or other sleeping medication, e.g. Zolpidem, is not ideal and will not resolve difficulties with sleep if the cause is left untreated.

Sleep hygiene and psychotherapeutic interventions such as Cognitive Behavioural Therapy for sleep may also play a valuable role in managing poor sleep. Early detection, diagnosis of cause and early appropriate management may prevent or treat a large number of secondary complications and improve overall wellbeing and general health. MHM

References are available on request.

SADAG Office	011 234 4837
24 Hour Suicide Crisis Helpline	0800 567 567
Dr Reddy's Mental Health Helpline	0800 21 22 23
24 Hour Cipla Mental Health Helpline	0800 456 789
Pharmadynamics Trauma Helpline	0800 20 50 26
Adcock Depression & Anxiety Helpline	0800 70 80 90
ADHD Helpline	0800 55 44 33
24 Hour Substance Abuse Helpline	0800 12 13 14

THE SOUTH AFRICAN DEPRESSION AND ANXIETY GROUP

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