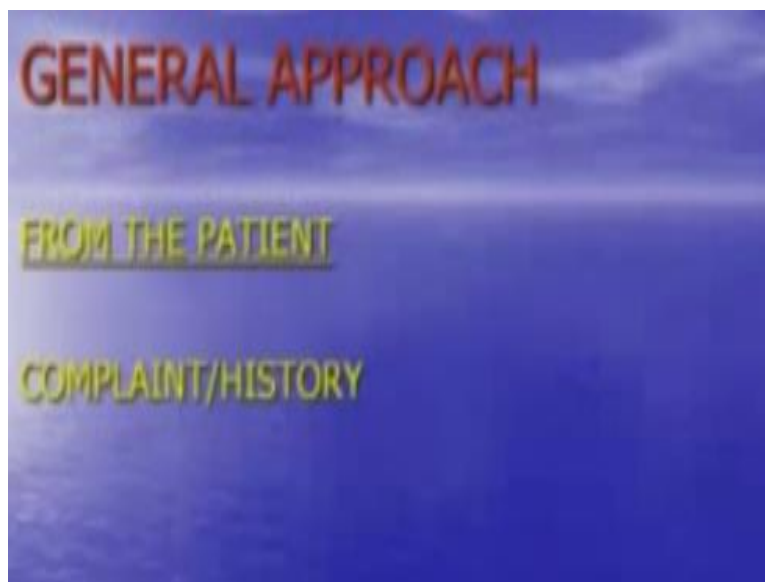


Psychiatry an Overview
Dr. Alok Bajpai
Humanities and social science
Indian Institute of Technology, Kanpur

Module-04
Psychiatric Disorders and their treatment-2
Lecture-20
Sleep Disorders-2

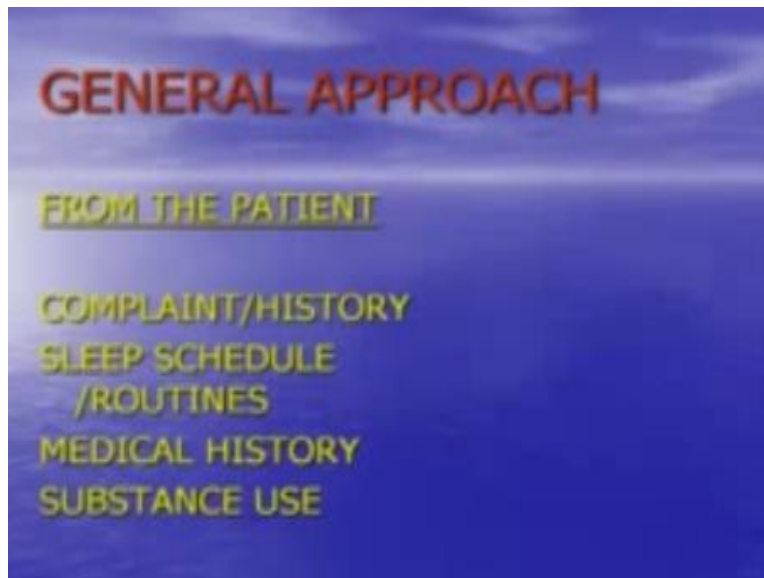
So the general approach to the problems is one, the complaint of the patient, which is the most common thing.

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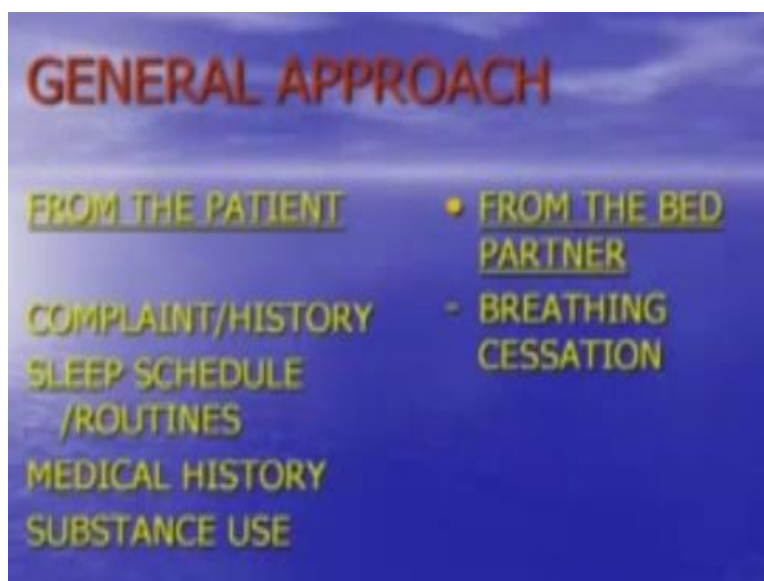
And they will not even in clinical settings in otherwise social conversational also we will say, we not getting sleep, so what we have to look at what is the complaint, schedule, medical histories.

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Substance use, alcohol the most common and most the social lubricant alcohol is very notorious, Shakespeare has also commented on it so some amount of alcohol people take to get good sleep but in long term and more quantity actually disrupt your sleep architecture you have to take history from the bed partner.

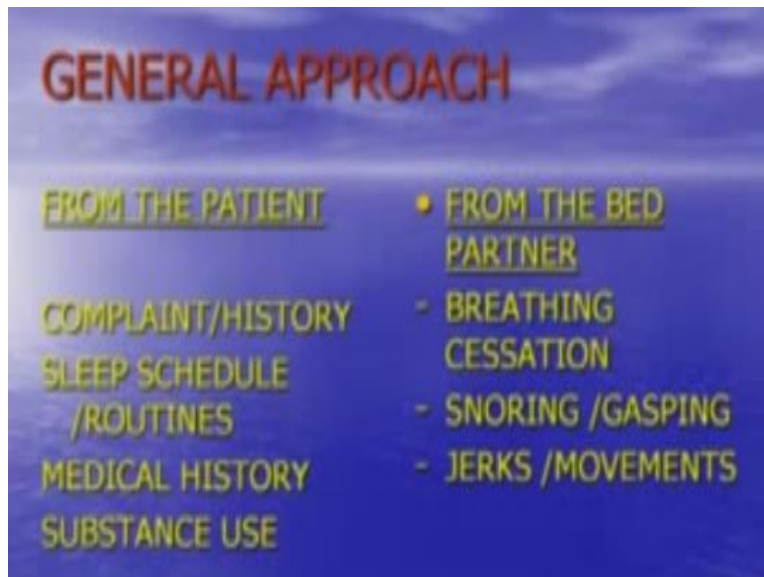
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Regarding specially in the people who snore and you will not realize how much misery is snoring causes, they are husband and wife who sleep separately, after a certain age because they

cannot tolerate each other's snoring, I mean is a fact actually some of the snorers had developed this illness called obstructive webinar.

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GENERAL APPROACH	
<u>FROM THE PATIENT</u>	• <u>FROM THE BED PARTNER</u>
COMPLAINT/HISTORY	- BREATHING CESSATION
SLEEP SCHEDULE /ROUTINES	- SNORING /GASPING
MEDICAL HISTORY	- JERKS /MOVEMENTS
SUBSTANCE USE	

Were there sleep goes into a crescendo and high and then keep stopping for 10 seconds or more episodes that jerk or movement and at any mood or cognitive changes associated with it.

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GENERAL APPROACH	
<u>FROM THE PATIENT</u>	• <u>FROM THE BED PARTNER</u>
COMPLAINT/HISTORY	- BREATHING CESSATION
SLEEP SCHEDULE /ROUTINES	- SNORING /GASPING
MEDICAL HISTORY	- JERKS /MOVEMENTS
SUBSTANCE USE	- MOOD/COGNITIVE CHANGES

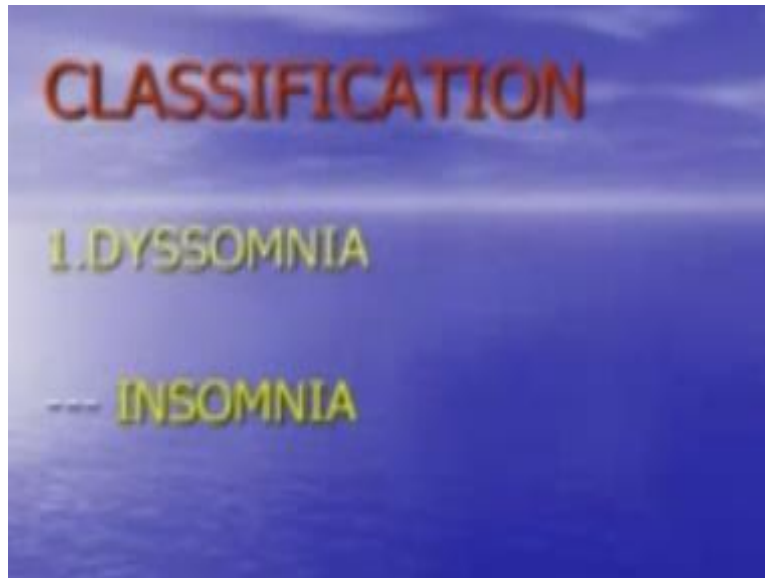
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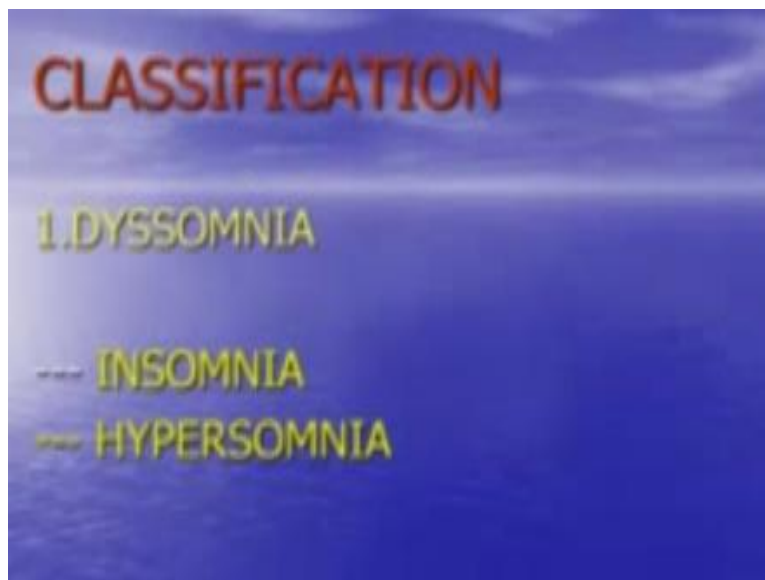
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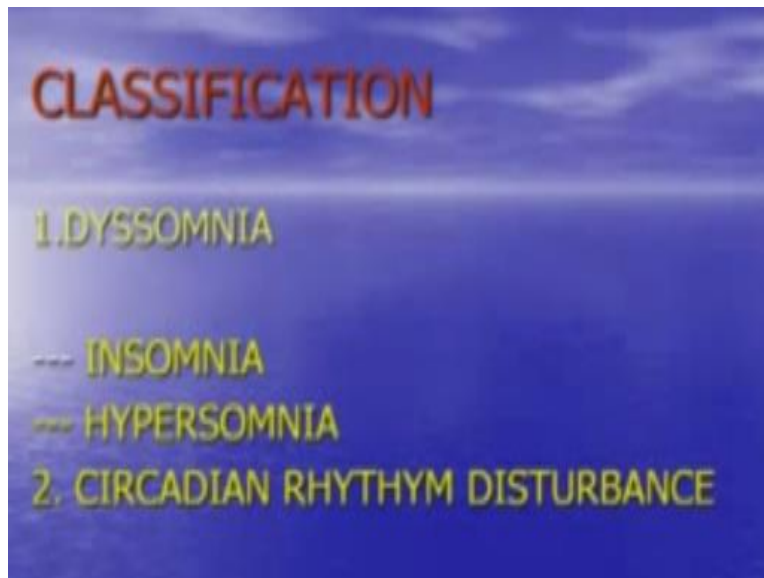
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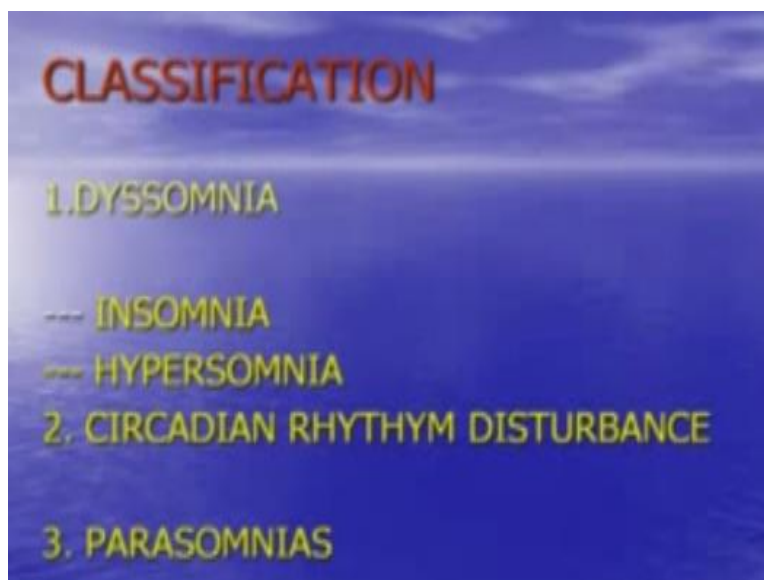
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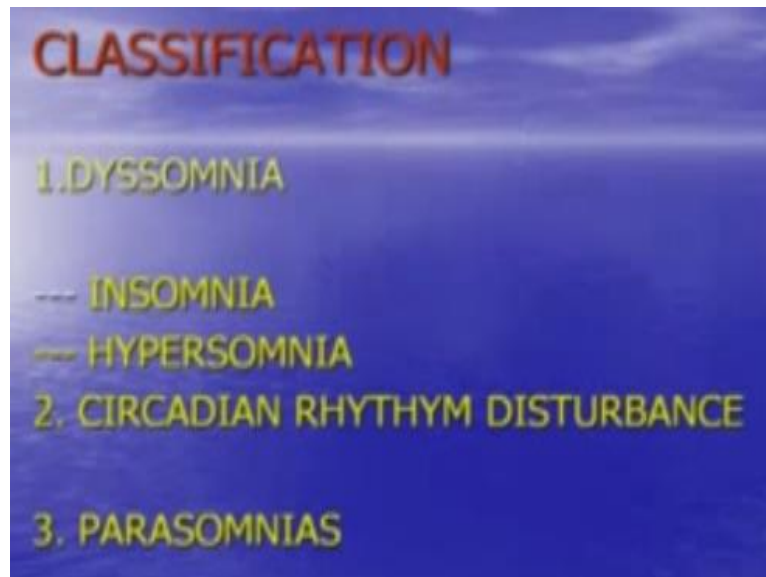


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So if you look at the, these are very common terms all of would you would know it, so it be interesting to learn about them.

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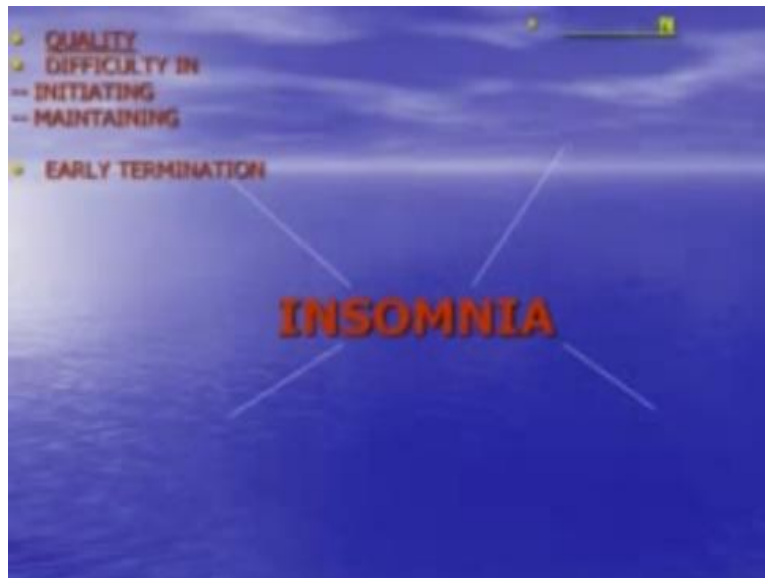
Dyssomnia has Insomnia very common term or hypersomnia, circadian Rhythm disturbances, Parasomnias.

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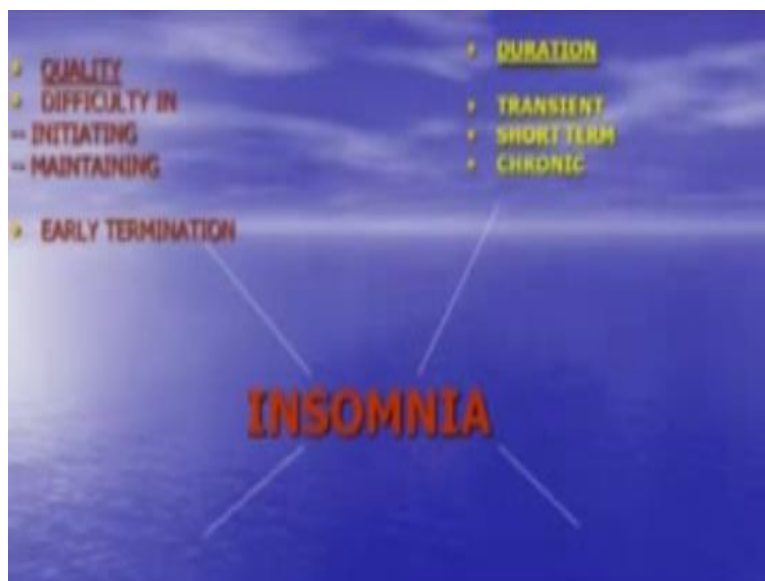


So what all happens when you somebody tells you I am not getting sleep or somebody says I have an Insomnia.

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So it is not a monolithic term you say Insomnia is one thing.

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As we been, the but there could be a difficulty in initiating sleep, there could be a difficulty in maintaining sleeps, somebody may not get sleep, you people go to the bed and they are not sleeping, some people go it to bed and get sleep or they get up early.

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Which is early determination, some people may have now this is the quality.

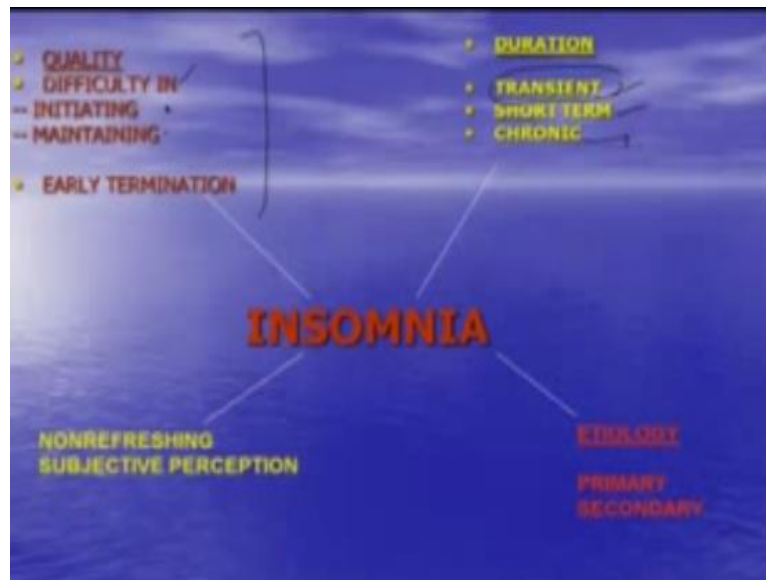
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What exactly is happening when you are not getting sleep, it can also be looked at whether there is a transit thing you are stressed about exam you are not a getting sleep, this stress in a

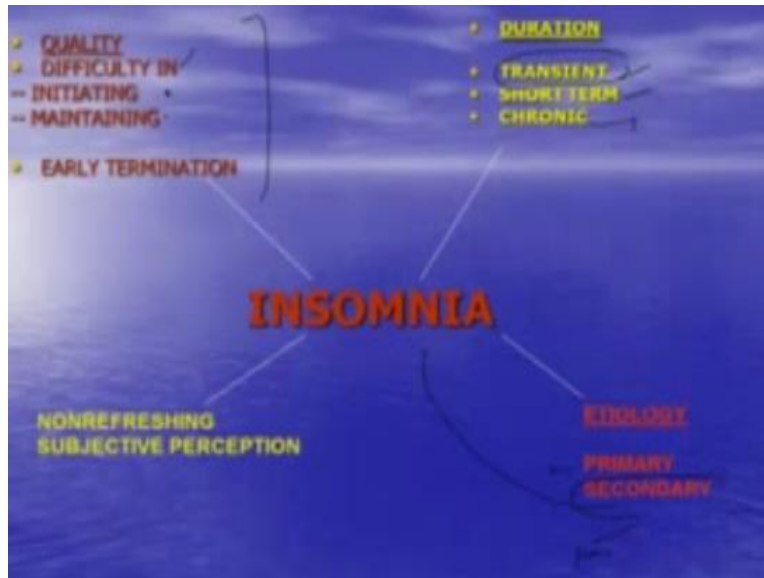
relationship some mash up you do not get sleep or this a transient thing or a short term thing may be if few weeks one month or 2 month for some reason and coming in so many ask for months to years.

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When we also look at it from a cause whether there is no other cause, if you are having an abdominal pain which is not getting cured, you have lack of sleep but that is secondary to the pain.

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Primary is you have no problem is still you are having problems, but by far this is the commonest complaint.

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And it is increasing day by day possible people are not getting a proper environment to sleep so one no hour so much light around, the schedules the most people who come with problems of

sleep will get up and say, that they did not have a refreshing sleep. So they will complain whether a non-refreshing sleep.

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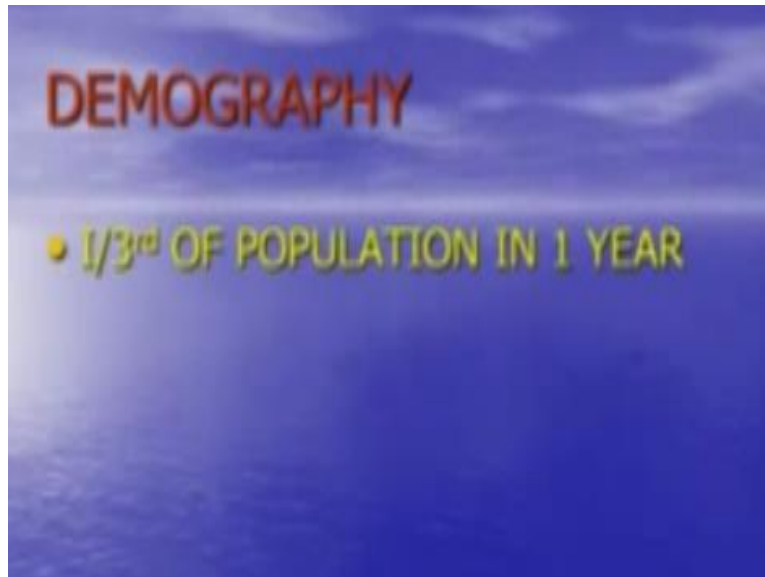


Or there is a subjective perception, though they have slept if you do a polysomnography you will find the sleep is normal, but they would have a feeling that they have not slept.

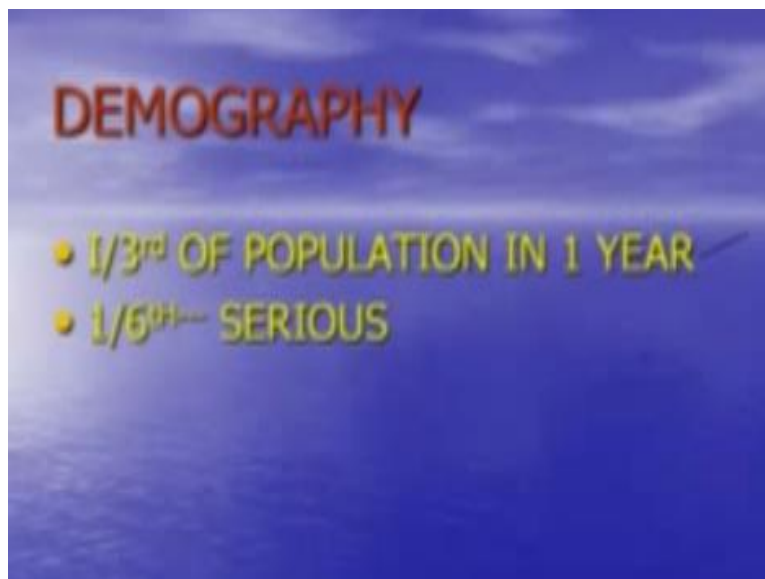
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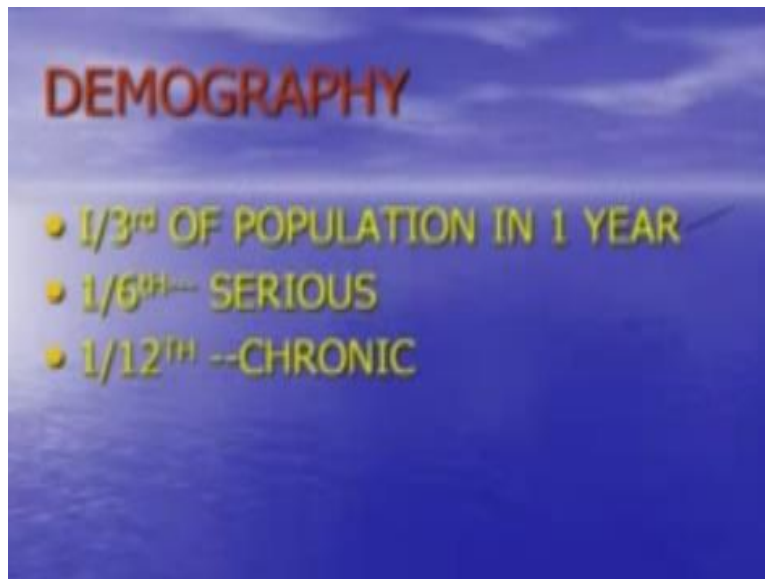
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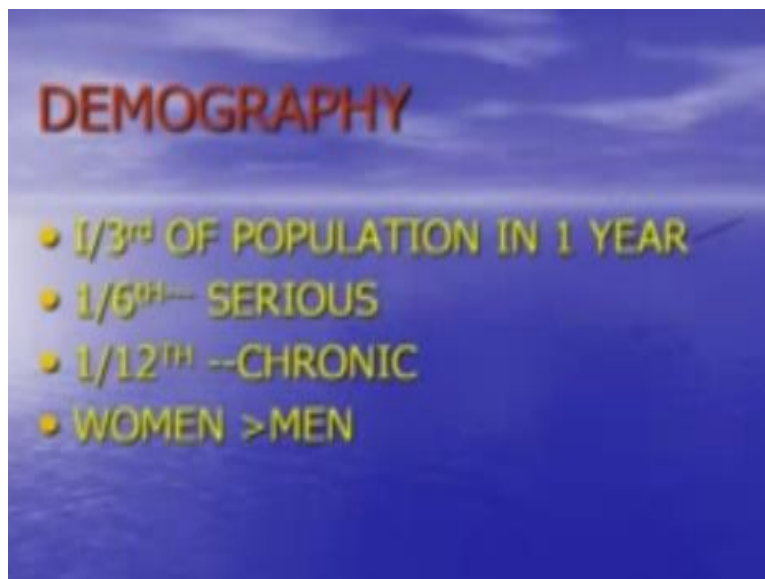
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DEMOGRAPHY

- 1/3rd OF POPULATION IN 1 YEAR
- 1/6th— SERIOUS
- 1/12th --CHRONIC
- WOMEN > MEN
- ELDERLY > YOUNG

One third of the population in one year, one sixth is serious, one twelfth is chronic, women more than men so women sleep less than men. Elderly less more than you young.

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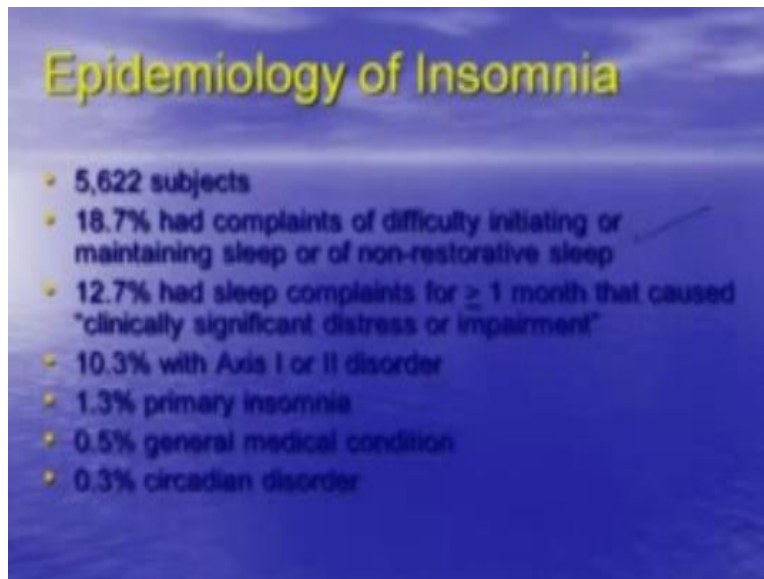
Epidemiology of Insomnia

- 5,622 subjects
- 18.7% had complaints of difficulty initiating or maintaining sleep or of non-restorative sleep
- 12.7% had sleep complaints for ≥ 1 month that caused "clinically significant distress or impairment"
- 10.3% with Axis I or II disorder
- 1.3% primary insomnia
- 0.5% general medical condition
- 0.3% circadian disorder

Ohayon M, J Psychiat Res. 1997;31:323-342

So most people have difficulty in initiating.

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10% had problems associated with other psychiatry illnesses, some general medical condition causes problem.

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What are the complaints, day time drowsiness, so they may not always come and tell you that they are not sleeping , they become with these are the day time drowsiness, they a lot of Fatigue they lack of concentration, anxiety you all of us know all this stuff.

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Depressive symptoms, feeling of mind working during sleep, is a very common thing everybody, every single person come and tells it could not sleep because the mind was working, mind is working because mind is anyway working at one point of time it was thought that a sleep is a

inactive passive process, but sleep is more active than the awake because see what is happening in sleep.

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As I told you during the REM sleep, the nor epic nephron system is shut down.

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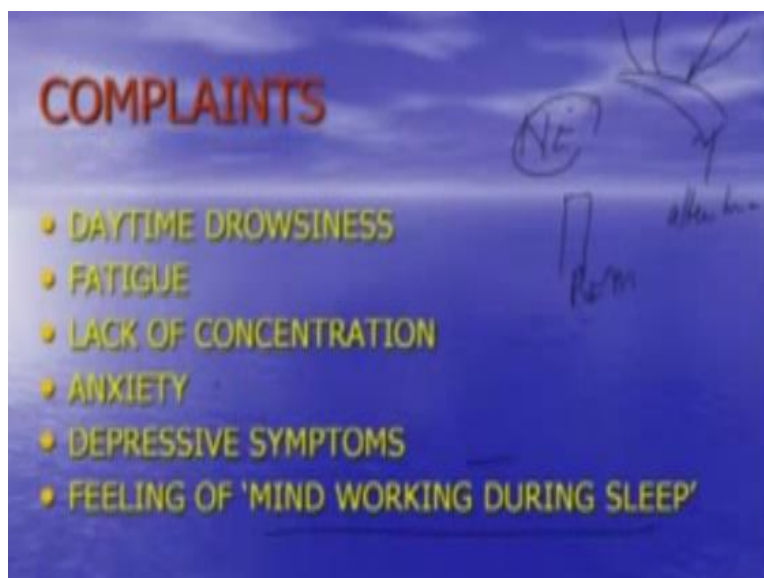
So that the external stimulus does not enter the attention mechanism.

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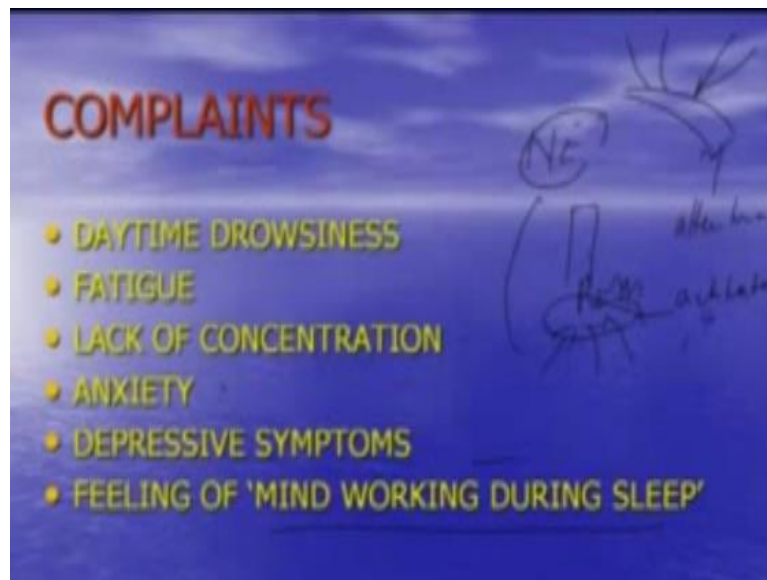
This is blocked during the REM sleep.

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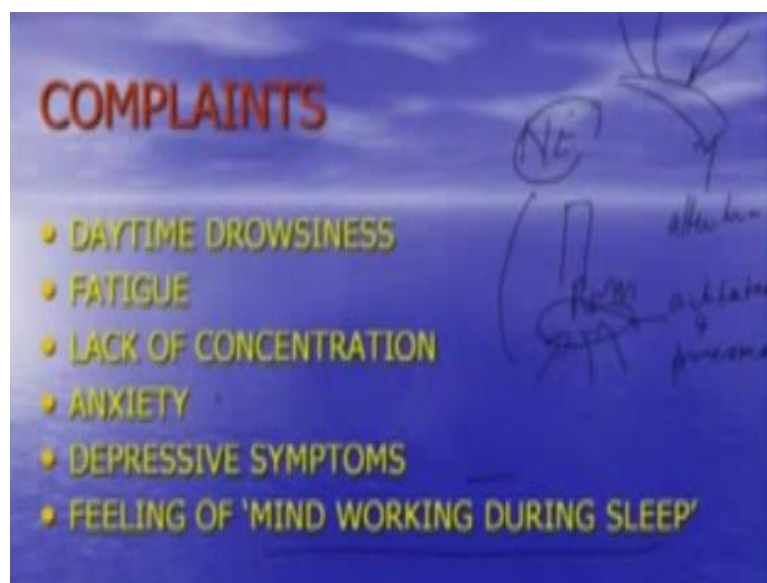


So that during REM sleeps all the things which have gone in during the day time are activated and processed.

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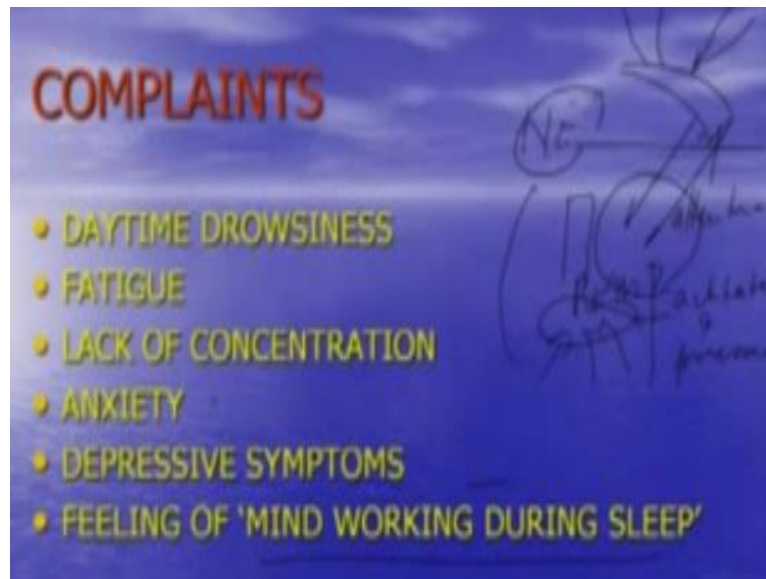


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Now if imagine if external things are also coming internal also genetic there will be a cause.

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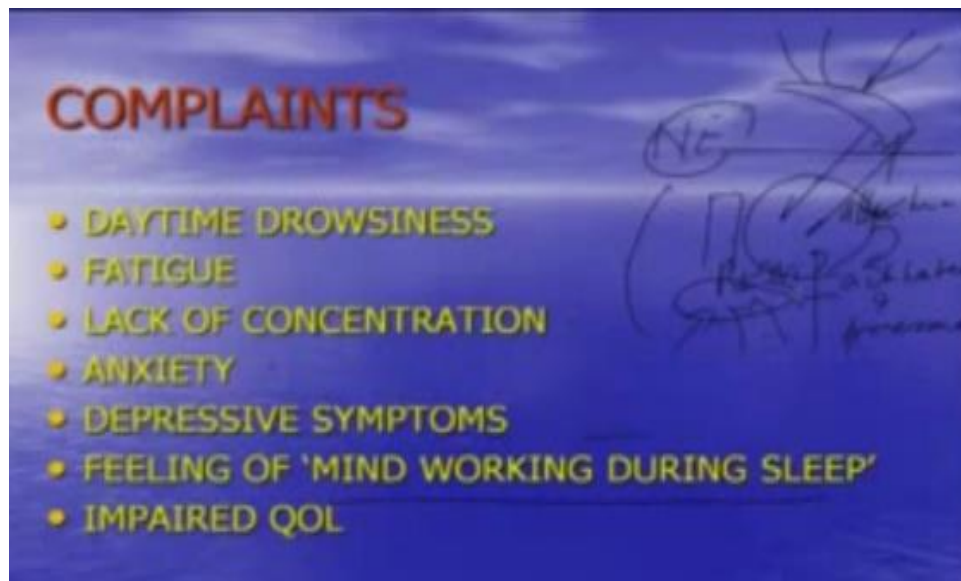
So brain very smartly shuts off this nor-epinephrine system during this brief episode of REM, attention is totally diverted inside and these things are processed so the more information goes in the more processing goes in and that is why a lot of people tell you when they are disturbed or anxious that they are seeing bad dreams and these dreams are such a very emotional, now dreams are pervasive if you look at it.

They can get evoked by small things, the brain is smart because it will induct all your needs even if you are feeling cold and you are not put a blanket somehow dream will induct that need into your dream maybe whatever it is but dreams can also come from your past and from ages and something a lot of people get disturbed by dreams do not know where it is coming from but believe me nothing comes out from outside.

What comes in that is already in your head may be you have listened something in your childhood and something happens at your forty years of age which has connection with it, this processing just brings it out and it can be intense and at the same time you are feeling cold and you do not have a blanket your mind is asking you to cool but you cannot get up and because you are not aware.

The dream will suddenly include some, some scenes of blanket but you must have noticed it, lot of people who have full bladder in sleep and they are not aware that they should go and urinate somehow they will get something in the dream where they will feel like urinating a very, very common thing, so mind is already working.

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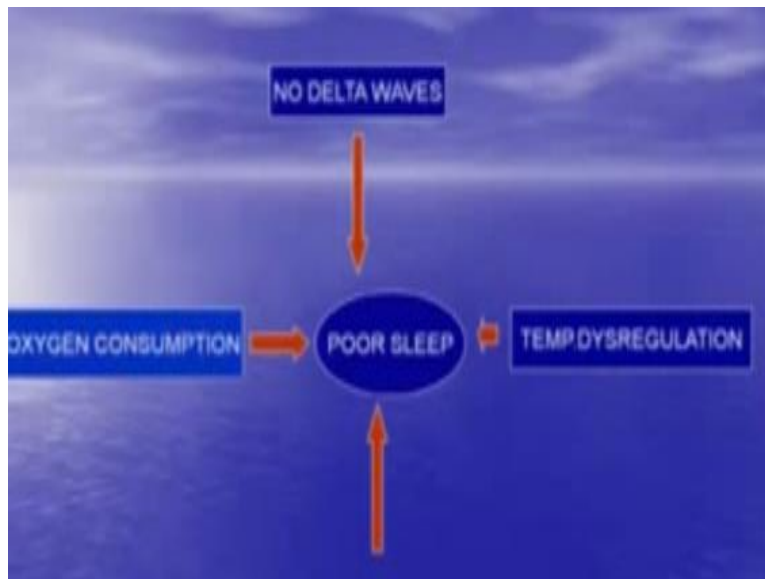
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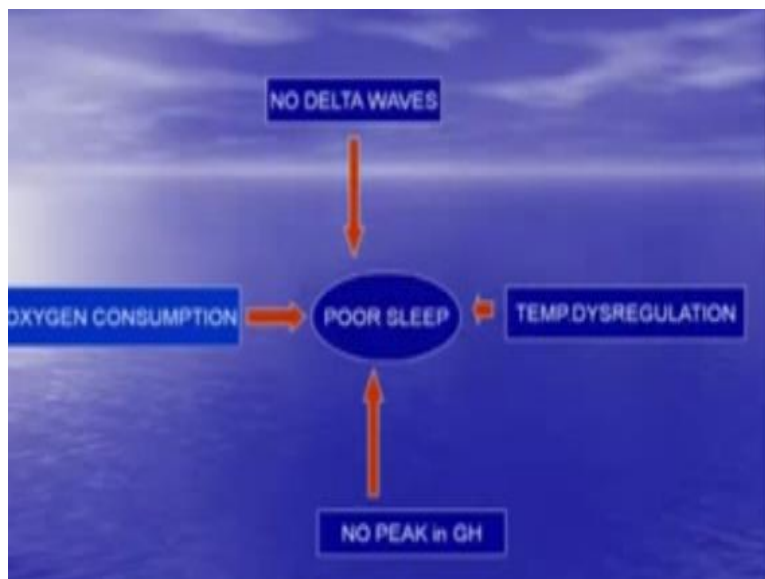
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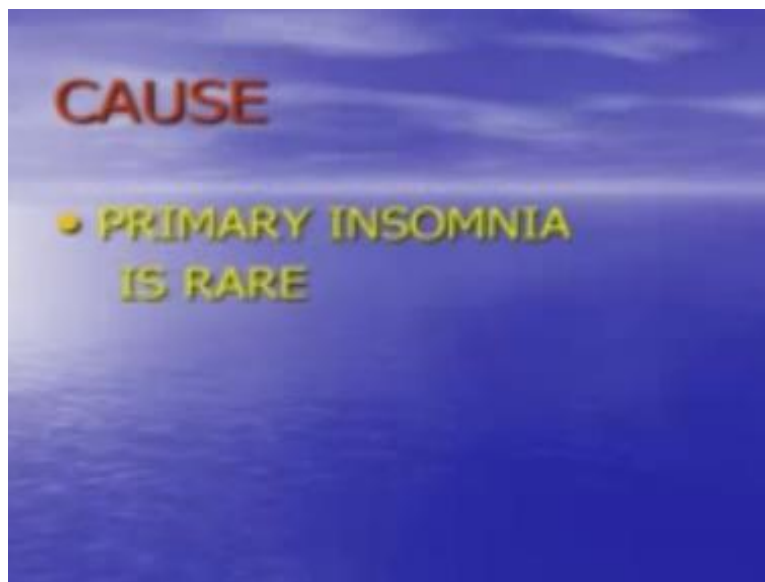


So poor sleep can have what you find is these type of disturbances, growth hormone is not there, temperature dysregulation, no delta waves or in that means lack of slow wave sleep, oxygen consumption varies.

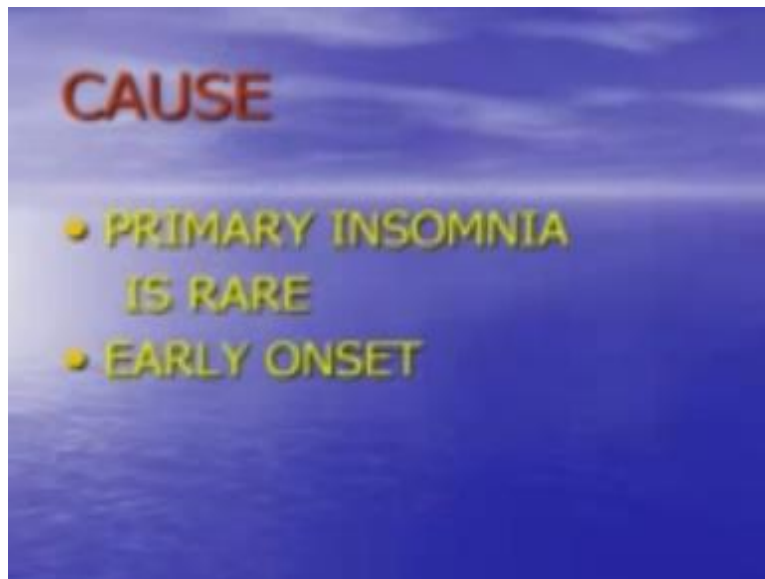
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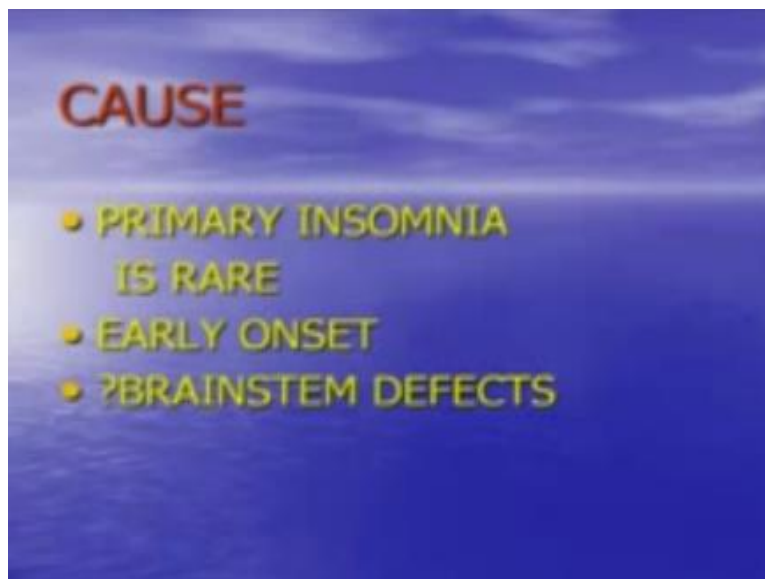
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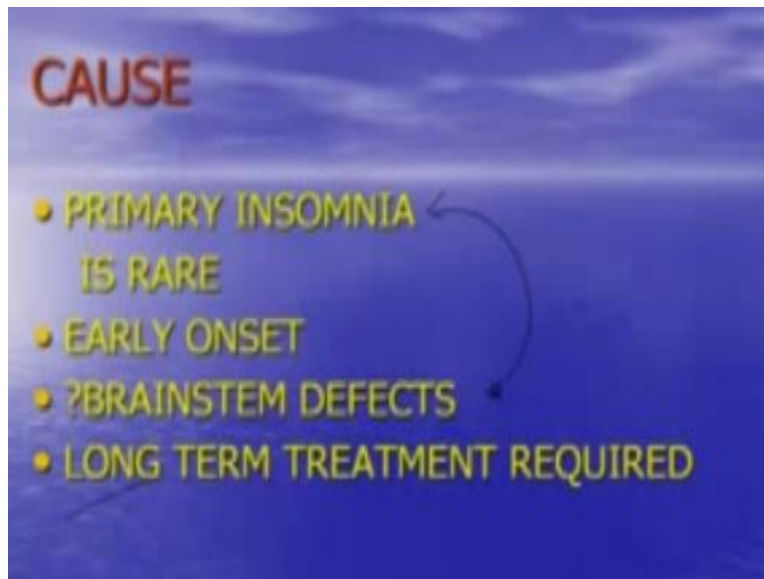


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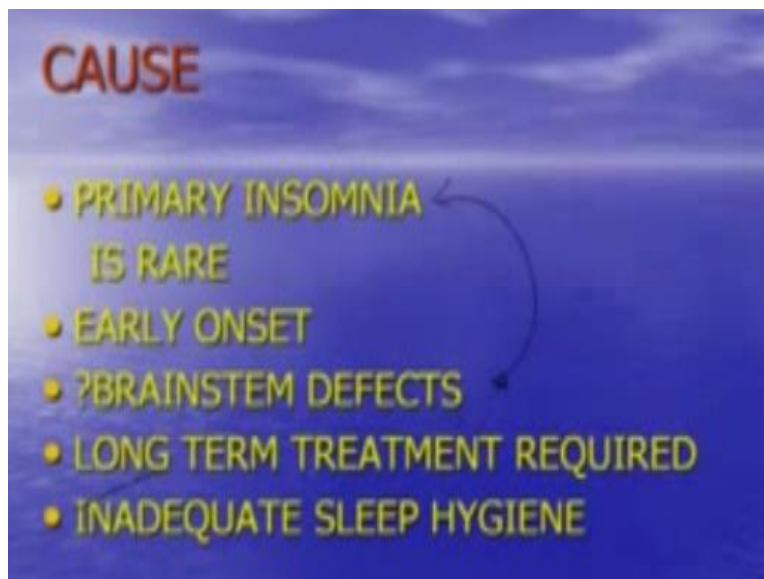


What are the causes, as I said primary Insomnia is rare, if there is a problem in the brainstem it can lead to primary Insomnia and this a long term treatment is required for it.

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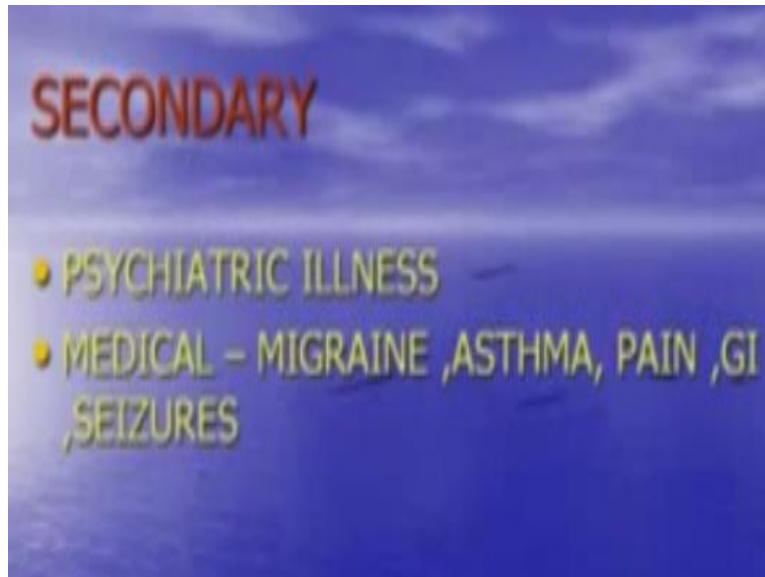


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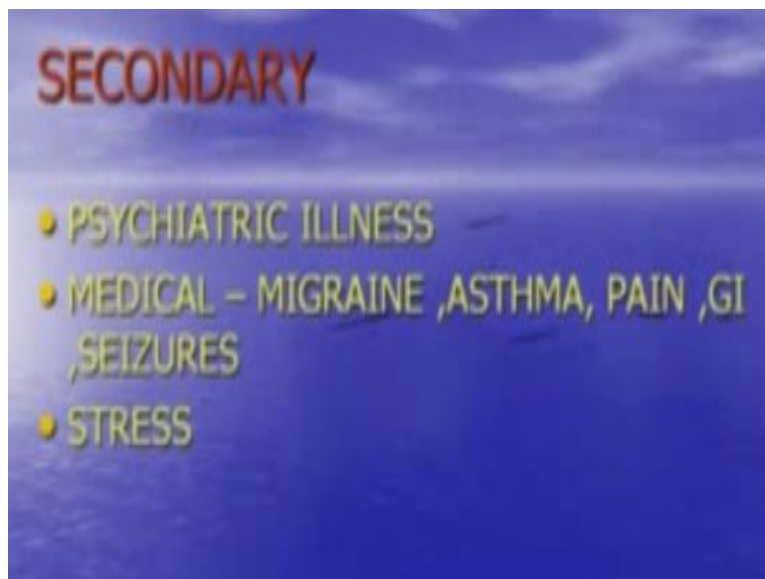


Secondary can be psychiatric illnesses we have talked about it, physical illness like migraine, asthma, pain, GI, seizures all this can cause in some stress is the most common thing.

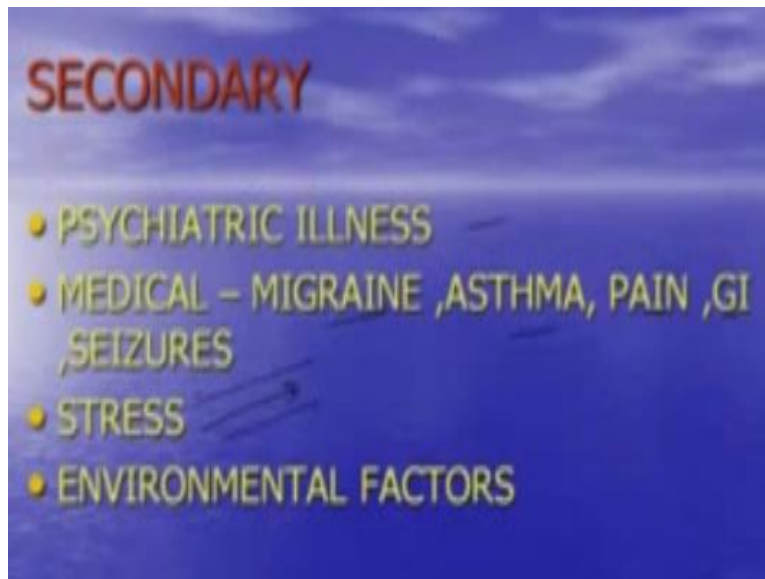
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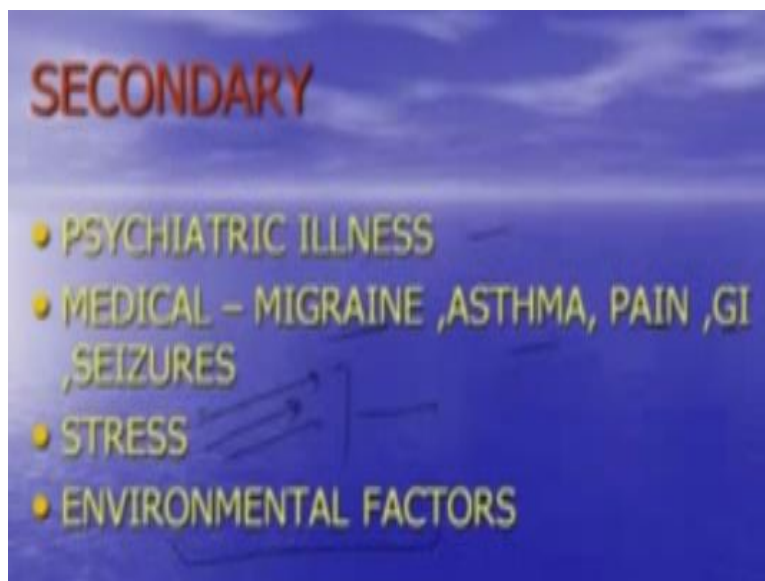


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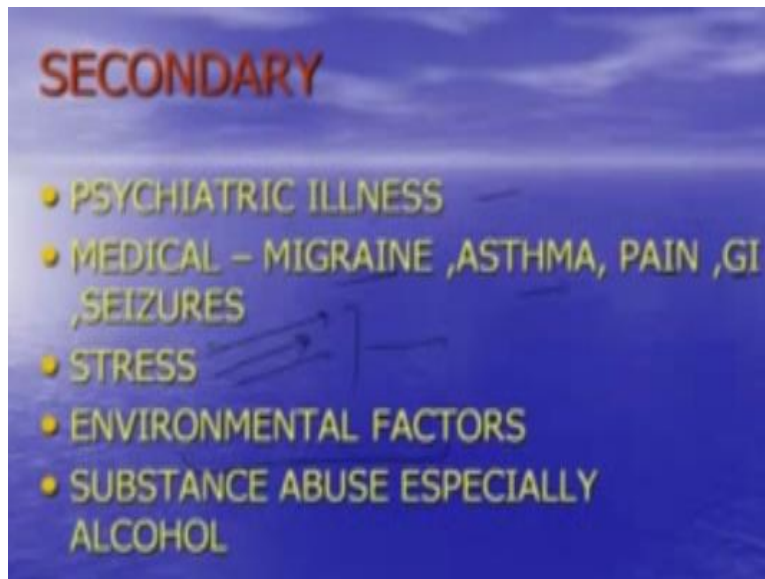


All of you know what is stress is, whether it is there over here increasing it in today's model life style is something which we are not sure and environmental factors.

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Substance abuse as I said alcohol, little bit may induce good sleep but if you take it continuously or if really go on to abuse or dependence, it destroys the architecture.

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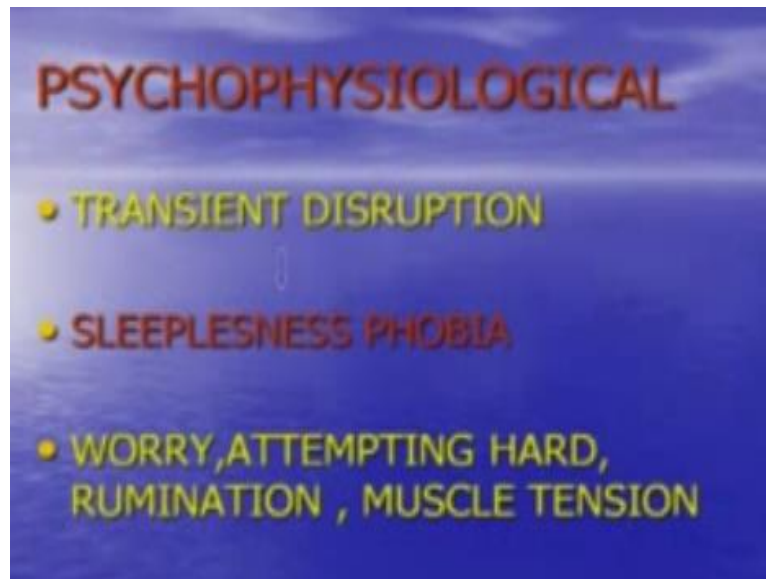
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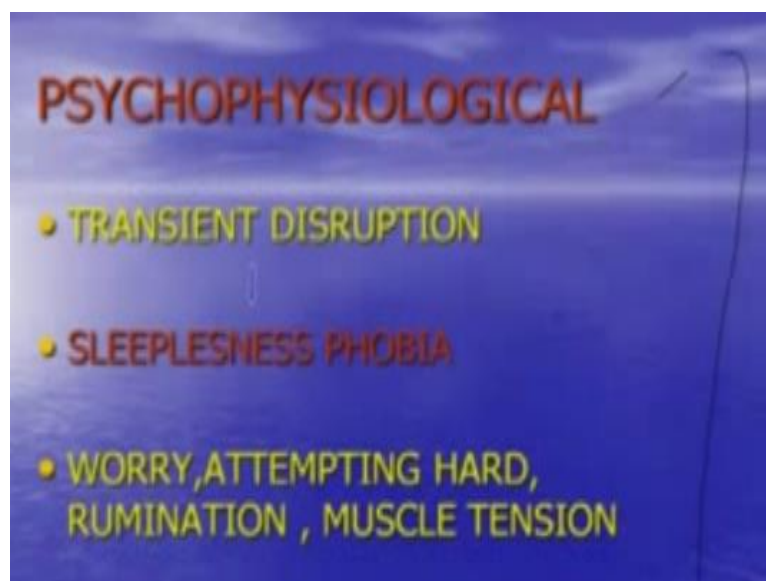


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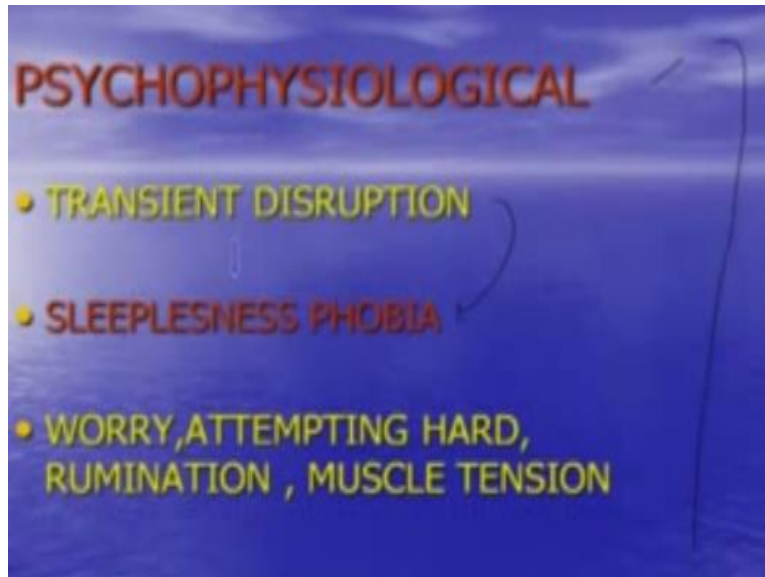
But what is most common is this, now this is something which whether you are doctor or not you can advice people if somebody tells you, there is something called psycho physiological with most people who get Insomnia what happens is that may be for some reason one or 2 nights they will not get sleep.

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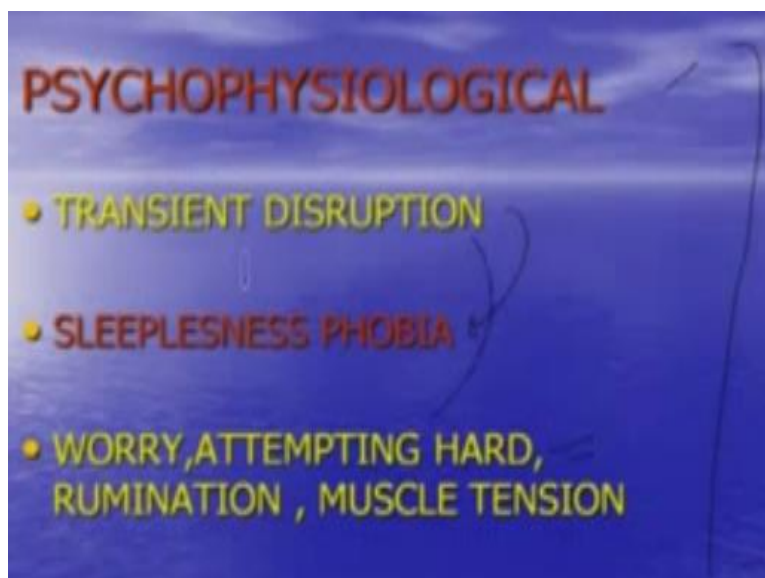
Now next time they go to sleep they will try to sleep.

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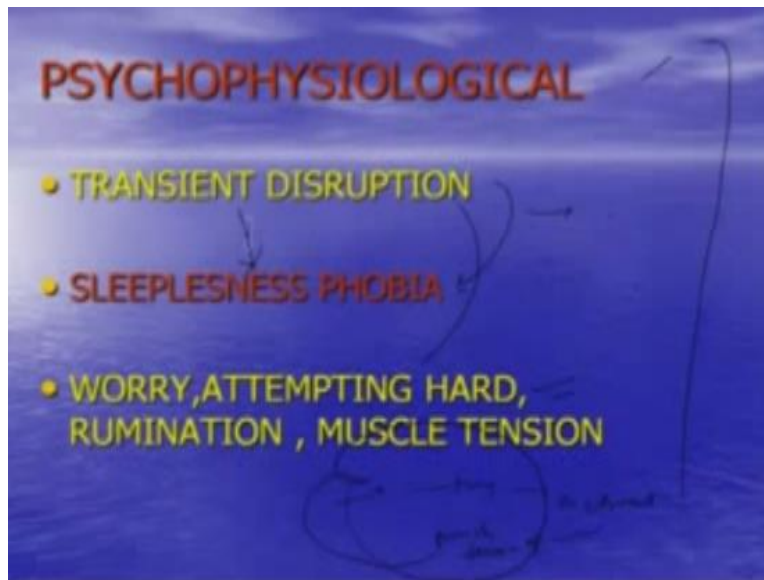
Attempting hard that is called, the more the try, the brain gets more activated, if you try anything your brain gets activated we all know it, the more it activates, the more disruption happens.

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So once it continues for beyond 3-5, 4-5 days what it develop is called sleeplessness phobia got it, you are not sleeping, you try, trying activates, muscle tension goes up leads to more disruption.

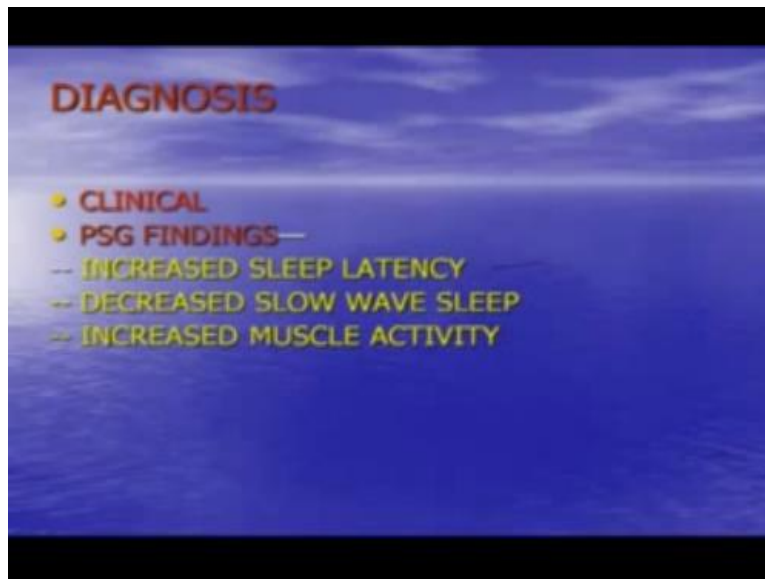
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But this cycle continues and it eventually lands up in phobia every time they are going to the bed they will have a irrational fear whether they will get sleep or not, then it leads to worry, and during the day they will keeping thinking what you called rumination, one big question whether they will sleep in night. These are the biggest question who people, who are not getting in the hold they will keep thinking.

By the time they come to the night, the worry has already increase the muscle tension, the muscle tension is increased disruption phobia this is the biggest cause of sleep disturbance.

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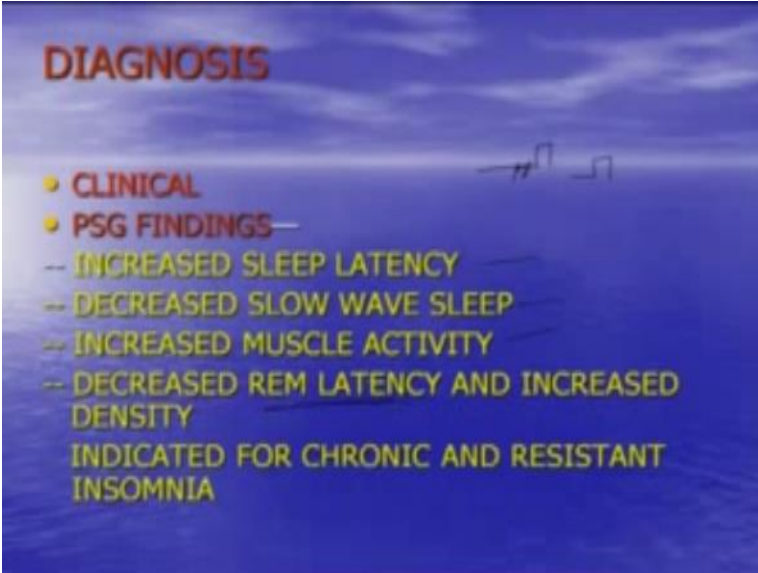
So any well I will skip the diagnosis, so what you find is increased sleep latency, the time to going, going to bed and getting sleep as increased the slow wave sleep is decreased, muscle activities increased.

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Rem latency means because the slow wave sleep if suppose it has to come after 90 minutes this part slow wave sleep, this is decreased so Rem will come before this is called latency, and the .

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DIAGNOSIS

- **CLINICAL**
- **PSG FINDINGS—**
 - INCREASED SLEEP LATENCY
 - DECREASED SLOW WAVE SLEEP
 - INCREASED MUSCLE ACTIVITY
 - DECREASED REM LATENCY AND INCREASED DENSITY

INDICATED FOR CHRONIC AND RESISTANT INSOMNIA

Dream more.

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SUBJECTIVE MISPERCEPTION

- SUBJECTIVE COMPLAINT WITHOUT OBJECTIVE FINDINGS
- COGNITIVE –BIOLOGICAL DISCOORDINATION
- PSG—ADEQUATE SLEEP ONSET, SLEEP EFFICIENCY, TST
- OBSESSIONAL, STRESS, ANXIETY

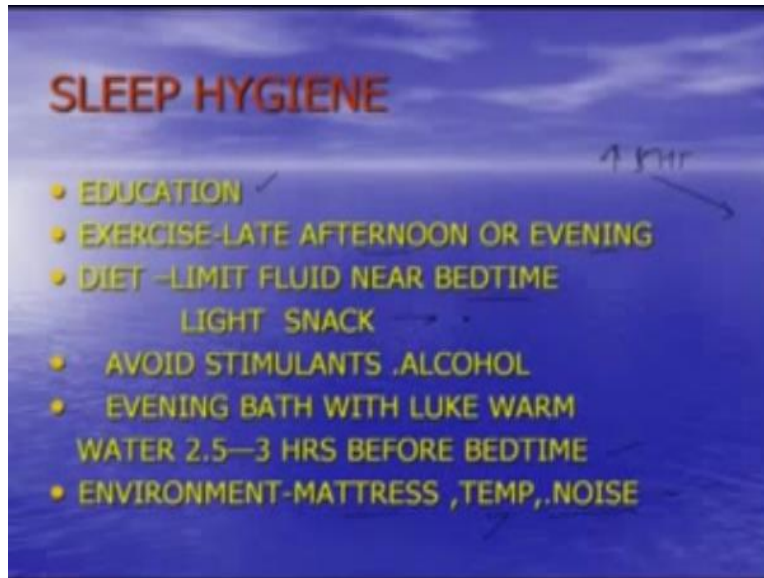
Now again I said these are the calmness complaint obsessional the rumination that they will get sleep or not stress anxiety is a subjective complaint without objective finding you do a polysomnograph you will find adequate normal polysomnograph but there is a coordination between biology and through so the biology is natural and normal the brain is not perceiving as if it has slept.

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So how do you manage, first there something was sleep I then which is for everybody and all if you can, if you know it sufficiently suggest it.

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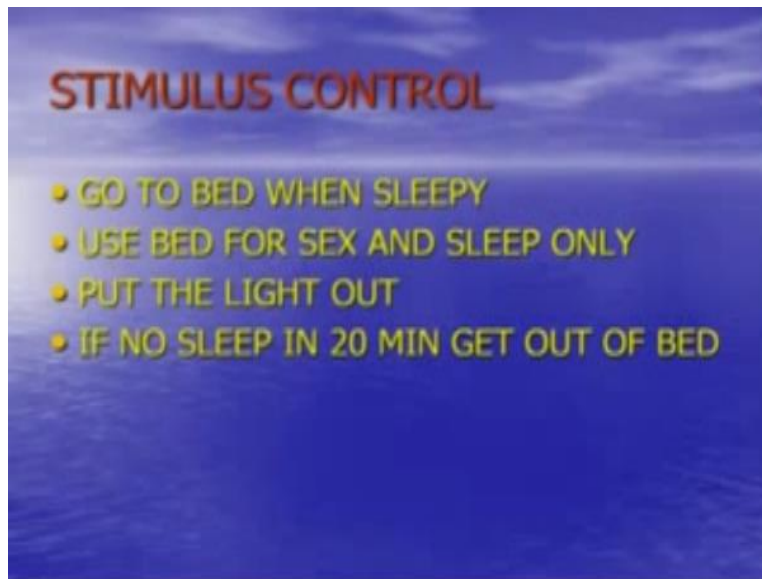


Education one that you don't have to think about sleepy when you feel like sleeping or have to sleep, exercise in late afternoon or evening is more helpful it than morning because it will build up serotonin levels 5HD levels and by that time you are going to sleep it will start falling , so if use some people are not getting sleep of this keep if they take a walk after dinner, and they will get sleep much late, because is they go for a walker serotonin built up and they you will take it is time to go after sleep limit fluid near bed time.

Lot of old people who have [indiscernible][00:12:49] go to the washroom every time, don't sleep empty stomach a light snack will keep the sugar levels all right, water to 2.25 to 3 hours before bed time especially with the lukewarm water if you, if people take bath a temperature goes up and has temperature falls it will induce sleep be the best sleep comes in temperature fall mattress, yeah temperature out of control with we are conditioning you can noise, yeah, noise is a big thing you got control noise in your main thing.

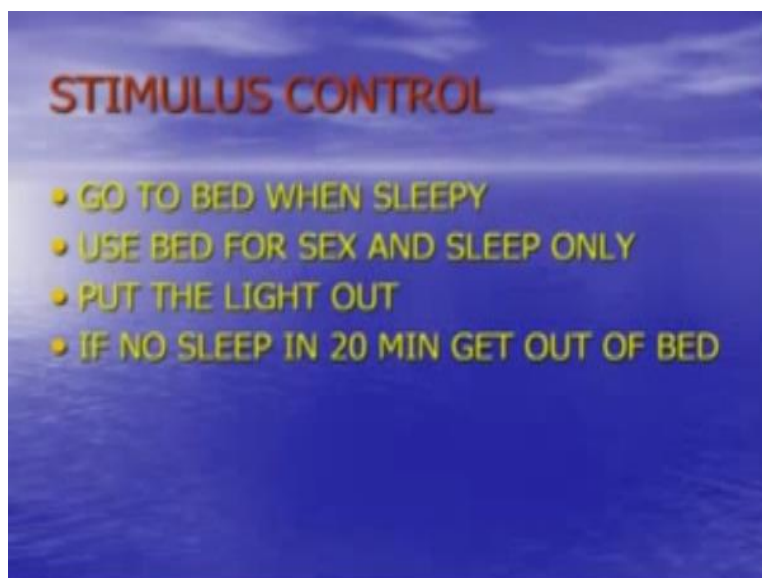
But I do not know how much we really do it whether so much input of noise and light in everything going around so these are sleep hygiene.

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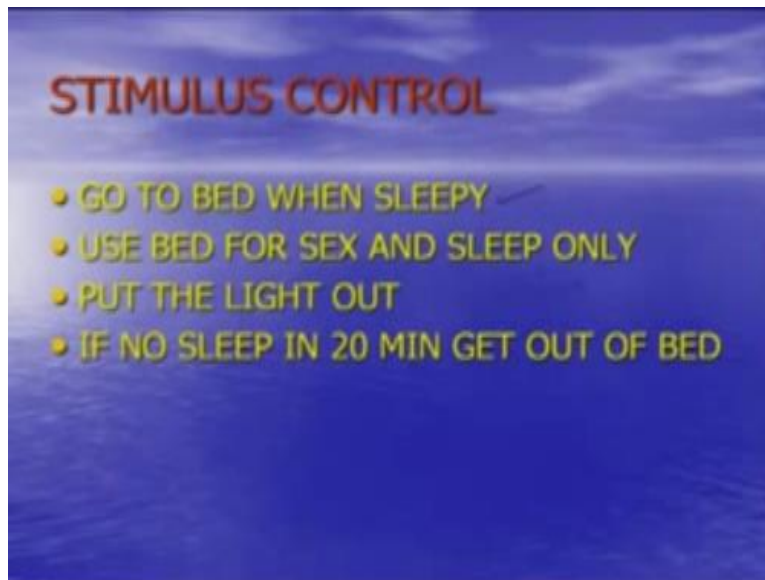
Stimulus control but these are the people who ruminate trait from morning that they have to whether they will get sleep, they got the bed thinking about this , they try to sleep as they said, then do not get sleep in the process every through and worry which she is there in the world will come into the head, the more they try to sleep the more they try to push out their thought, the more disruption happen again the, the vicious cycle.

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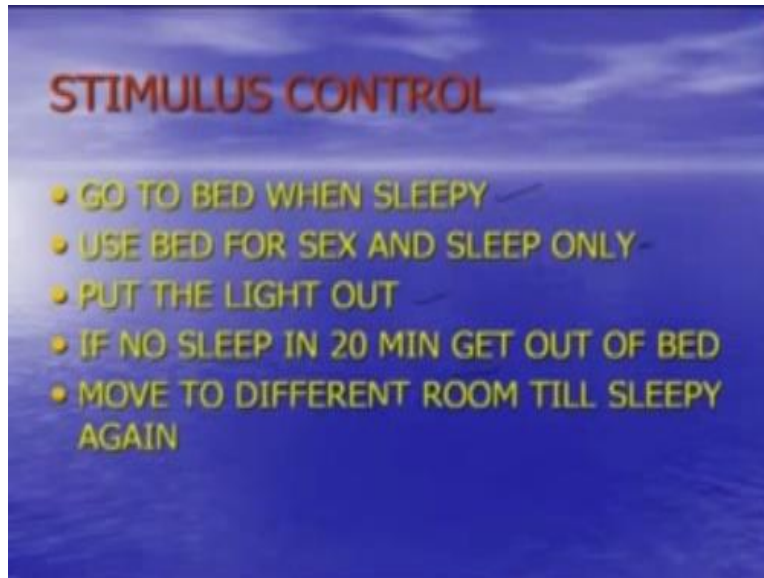
So you have that to it told that there should go to the bed only when the sleeping.

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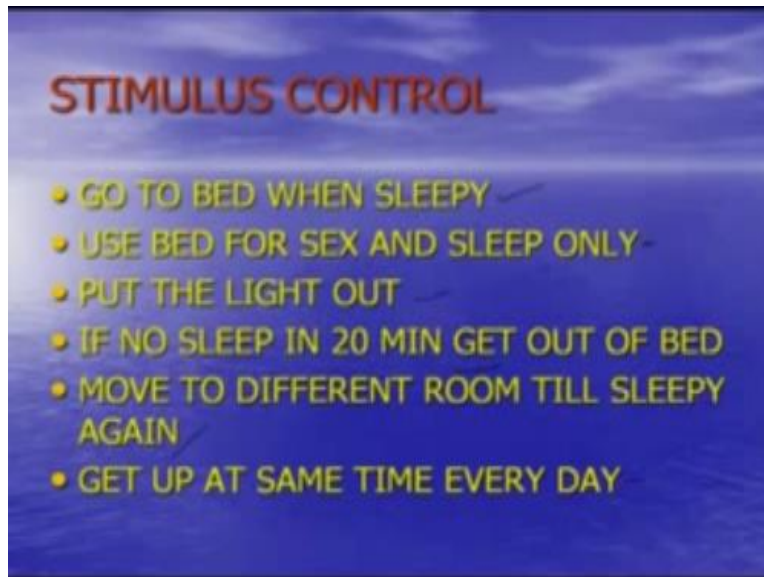
These are, these are curie movable sexually, there are the Q for disruptions bed is the Q where you want to sleep the bed suddenly awakes you up put the light out no sleep in 20 minutes get out of the bed difficult things you do, move to a different room till sleepy again.

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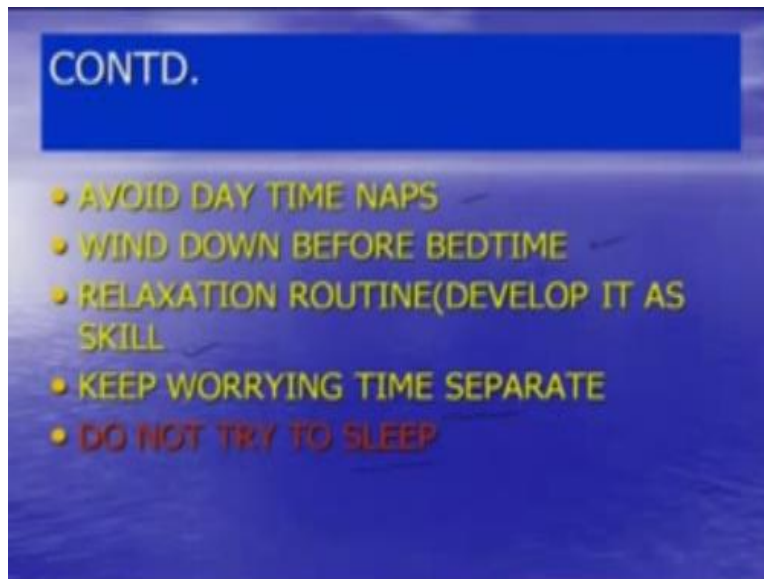
Get up at same time every day.

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Now why is this important getting up at same time, avoid day time naps, wind on before bed time , relaxation routine develop it as the skill, keep worrying time separate, do not try to sleep.

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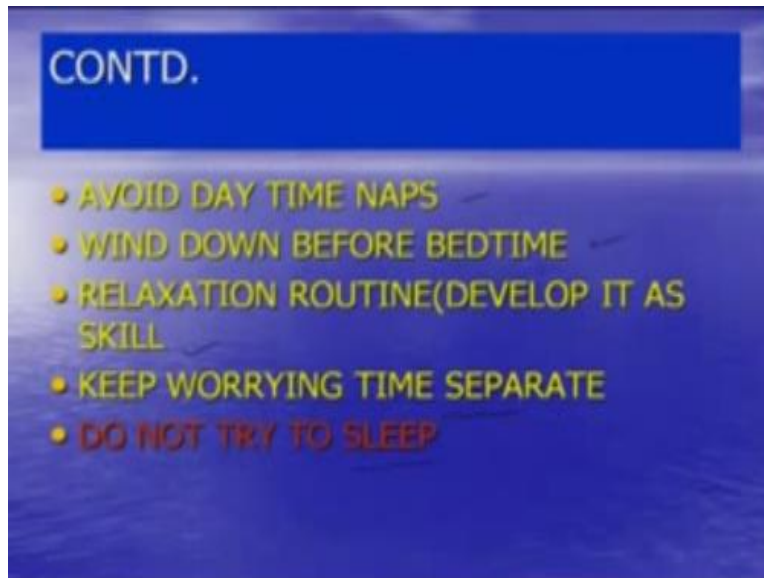
Forget about the drugs do not bother we do not have ideal hypnotic, ideal hypnotic which sudden work fast will not have any effect in the next day, no tolerance so same dose will keep giving you the same effect, and you will not get dependent on it, you will not abuse it and then no side effect on memory in all, no respiratory depression..

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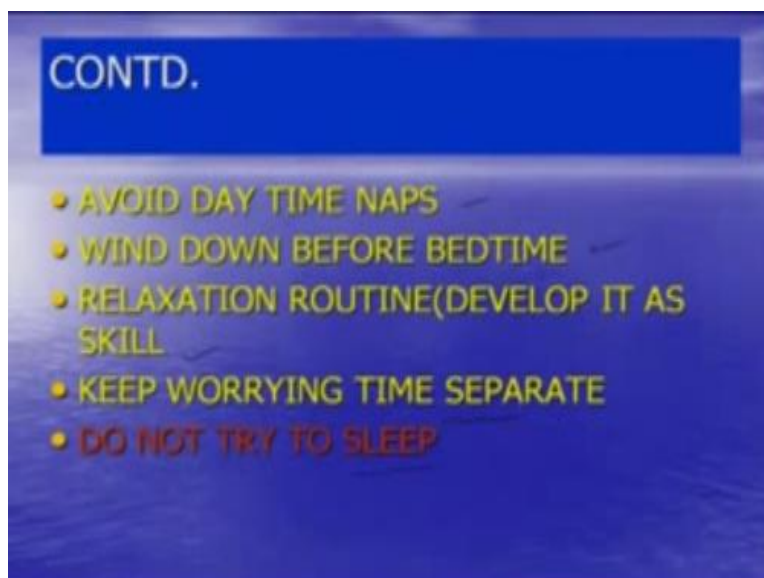
So that too many conditions are not ideal hypnotic we still do not have it.

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But let is look at the sleep hygiene, what, what are we trying to do we are trying to do one by avoiding day time naps, we are increasing that you saw that graph we were talking about away propensity and sleep province at by, avoiding day time naps.

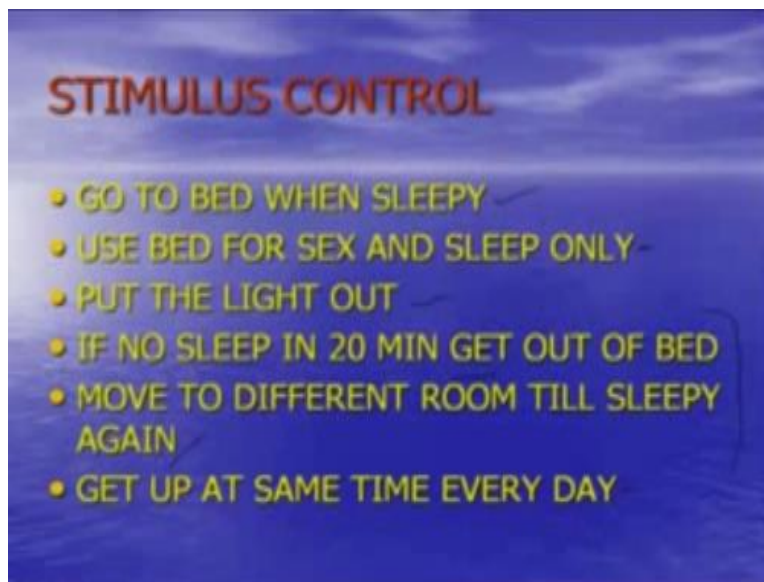
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So they be a normal for that people as I said for that for in some no it is not, you are creating a sleep pressure if you do not sleep the pressure the half-n- hour lack of sleep so if you suppose you have natural rhythm of 8 hours and you sleep 6 or 6 and half hours for 15days now these do not think this one and half hour lack will go off, it will keep creating a sleep pressure for the sleep pressure we create a sleep pressure by avoiding day time naps we tell people that don't go thinking about your world problems while near to the bed.

You should just relax your mind, so make it a skill if you really want to worry and, and if you have things you should fix a time much earlier than your sleep time, fix a time where you want to worry, worry about whatever you want once you have finished worrying 15 , 20 , 30 minutes a rap off do not try to sleep as I said if you try to sleep you mind will get a vacant but this routine is easy because if you.

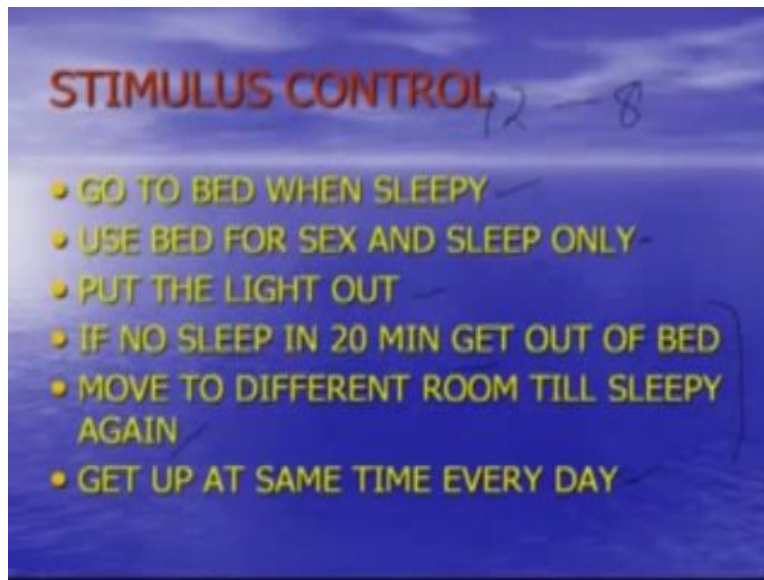
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Do not sleep you got to the different room come back may be 10times in a day the mind will adjust to it getting at the same time is very important like some people who do not sleep earlier

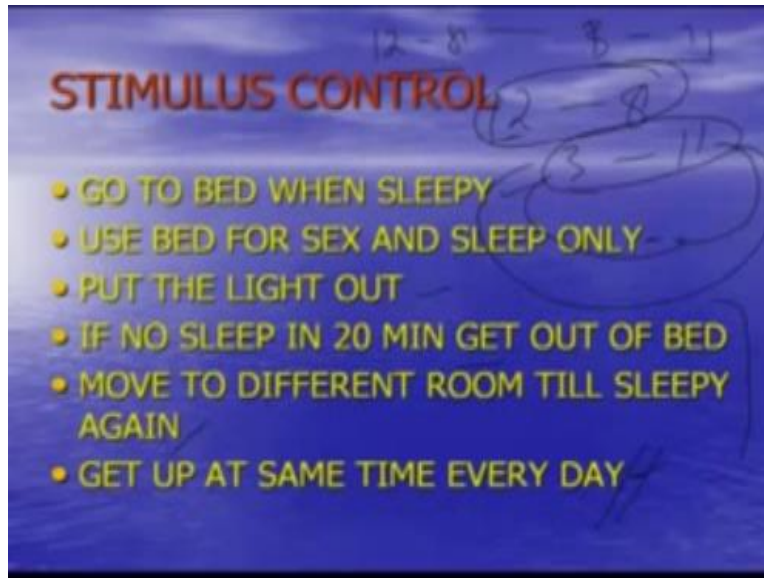
in the night and they want to sleep it 12'o clock and they sleep at 3 so they will sleep till 10'o clock so and normal they normal getting up time is 8 so they already compensate it so if you compensate it the cycle which was supposed to go from.

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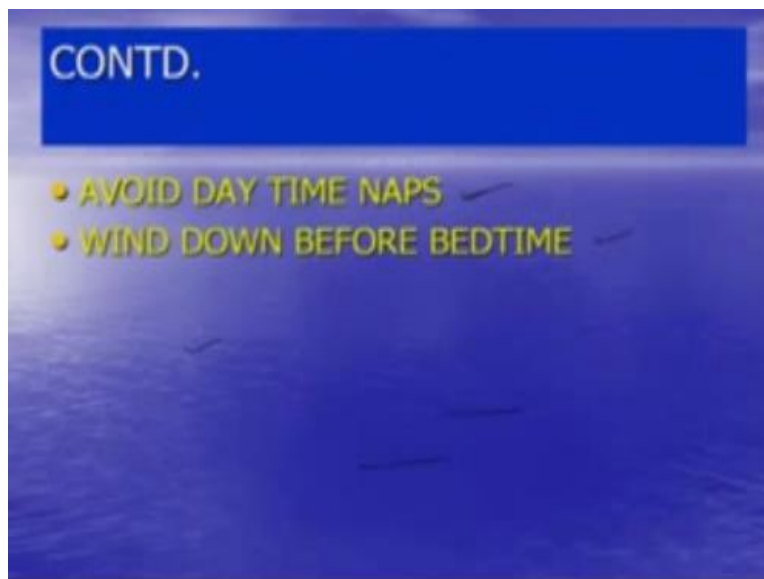
12 to 8 as really gone from 3 to 11 total number of hours remain the same so next night you cannot get sleep it to next time again it will with 3 , again it will with 3 so your pattern would have shifted from 12 to 8 to 3 to 11 , your adequate amount of sleep whole the whole cyclist shifted by getting up at the same time every day.

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We are doing the same thing like what we are doing in day time naps we are creating a sleep pressure.

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Suppose if you get up by 8'o clock and if I advice people that even if you sleep at 7 please put alignment get up do not bother about that 6 hours of lost sleep maybe they will be one or 2 days when they will be troubled you will have headache and lack of concentration which you anyway

having because your old schedule is disrupted, so instead of trying to compensate shifted so some 2, 3 therefore that days later you will get sleep at that adequate time.

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1. Benzodiazepine like: zolpidem, zaleplon, eszopiclone.
2. MT receptor agonists: melatonin, ramelteon.
3. Antidepressants: trazodone, mirtazapine.
4. Antihistamines: diphenhydramine.
5. Antipsychotics: olanzapine, clozaril, quetiapine.
6. Herbal supplements: lavender, chamomile.

Okay, so I sent these no ideal medicine but the lot of sleeping pills and most people this is the medicine power you know all fresh these in melatonin this is there lot of.

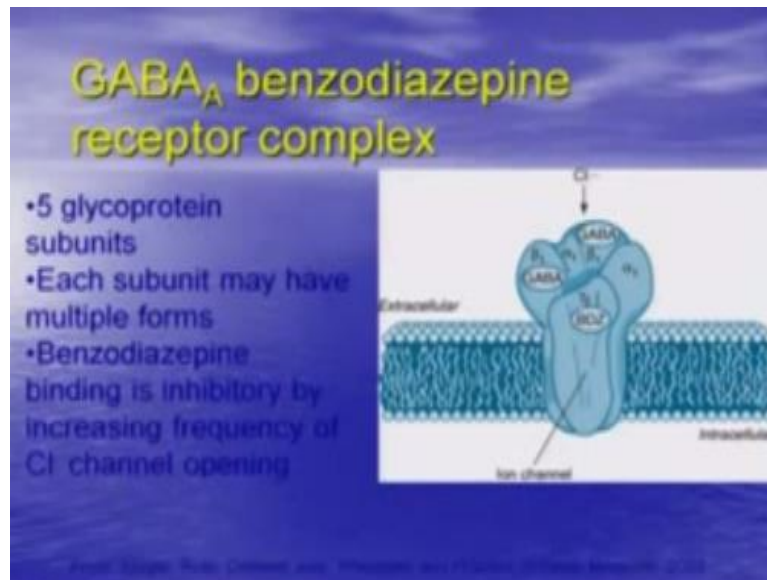
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BzRAs

- Benzodiazepines, zaleplon, zolpidem, zopiclone, & eszopiclone
- All act on gamma-aminobutyric acid_A (GABA_A) benzodiazepine receptor complex
- Preoptic area of anterior hypothalamus?

These medicine like Benzodiazepines, zaleplon is one of the most notorious in most addictive drug they all act in the brain to increase GABA.

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And cause sleep we can skip all, this GABA thing.

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BzRAs: Pharmacokinetics

Agent/Drug	Half-life (h)	State of Action (mg)	Pharmacokinetic Action Mechanism	Dose (mg)
Benzodiazepine Agonists				
Alprazolam	11-15	10	Alprazolam (Benzodiazepine)	7.5-15
Clonazepam	18-36	15-45	Clonazepam (Benzodiazepine)	15-30
Lorazepam	10-20	1-2	Lorazepam (Benzodiazepine)	1-2 (10-20)
Midazolam	3-6	1-2	Midazolam (Benzodiazepine)	1-2
Triazolam	1.5-5.5	1-2	Triazolam (Benzodiazepine)	1-2
Flurazepam	10-15	15-30	Flurazepam (Benzodiazepine)	15-30
Temazepam	8-12	1-2	Temazepam (Benzodiazepine)	1-2
Chlorthalidone	35-45	1-2	Chlorthalidone (Benzodiazepine)	1-2
Benzodiazepine Antagonists				
Flumazenil	1-2	1-2	Flumazenil (Benzodiazepine)	1-2
Roche	1-2	1-2	Roche (Benzodiazepine)	1-2
Roche	1-2	1-2	Roche (Benzodiazepine)	1-2
Roche	1-2	1-2	Roche (Benzodiazepine)	1-2
Benzodiazepine Antagonists (continued)				
Roche	1-2	1-2	Roche (Benzodiazepine)	1-2
Roche	1-2	1-2	Roche (Benzodiazepine)	1-2
Roche	1-2	1-2	Roche (Benzodiazepine)	1-2

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BzRAs: Side effects & Safety

- Anterograde amnesia
- Residual sedation – longer acting BzRAs
- Rebound Insomnia?
- Abuse and Dependence?
 - Mostly used short term (2 weeks)
 - When used as a sleeping aid dose escalation rare
 - No studies of physical dependence with nighttime use
 - Low psychological dependence with nighttime use
- Increased fall risk in the elderly
- Cognitive effects in the elderly
- Increased mortality with sleep aids?

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TABLE 2. Efficacy of Pharmacotherapy Compared With Behavioral Therapy in 21 Studies of Persistent Insomnia

Subjective Sleep/Outcome Measure (Based on Sleep Diary)	Pretreatment Value		Posttreatment Value		Difference Between Pretreatment and Posttreatment Means		Number of Studies	Number of Subjects	Weighted Effect Size ^a		95% CI for Difference Between Effect Sizes
	Mean	SD	Mean	SD	Value	%			Mean	SD	
Sleep latency (minutes)											0.17 to 1.04
Pharmacotherapy	48.85	29.73	34.36	26.26	-14.49	29.7	6	129	0.45	0.28	
Behavioral therapy	54.24	28.52	30.91	16.81	-23.31	43.0	12	225	1.05 ^b	0.76	
Number of awakenings											-1.24 to 1.5
Pharmacotherapy	1.80	1.90	1.83	1.37	-1.17	39.0	4	108	0.97	1.00	
Behavioral therapy	2.44	1.84	1.67	1.59	-0.77	31.6	4	58	0.83	1.30	
Wake time after sleep onset (minutes)											— ^c
Pharmacotherapy	55.09	37.80	29.49	19.50	-25.60	46.5	1	17	0.89	0.29	
Behavioral therapy	68.60	40.27	30.22	23.96	-38.38	55.9	5	81	1.03	0.19	
Total sleep time (minutes)											-0.25 to 1.01
Pharmacotherapy	332.08	55.32	372.59	48.97	40.51	12.2	6	130	0.84	0.76	
Behavioral therapy	333.20	63.64	352.89	44.22	19.61	5.9	8	146	0.46	0.62	
Sleep quality rating ^d											-1.70 to 1.22
Pharmacotherapy	3.30	0.64	3.73	0.83	0.43	20.3	4	109	1.20	1.30	
Behavioral therapy	3.30	0.64	4.34	1.30	0.96	28.4	5	82	1.44	1.20	

^a Overall weighted effect size calculated by the formula $(\sum d^2 / \sum N)$, where d is the effect size of the individual study.

^b Behavioral therapy showed greater reductions in sleep latency than pharmacotherapy ($b=2.88$, $df=2042$, $p<0.01$, unequal variance).

^c Confidence interval was not calculated because there was only one pharmacological study that included wake time after sleep onset.

^d Sleep quality ratings were standardized across studies so that higher scores reflect better sleep quality.

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COMPARISON

- LONGER HALFLIFE
DZM, CLNZM, CDZ, FLRZ
- INTERMEDIATE
LZM, AZM,
- SHORT HALFLIFE
ZOLPIDEM, ZOPICLONE
- MELATONIN
- HORMONE FROM
PINEAL . MAXIMUM
SECRETION IN DARK.
- EFFICACY IN
INSOMNIA NOT
CONCLUSIVE.

Okay I skip this drug thing which may not be relevant to all of you little bit slides are there so if you can always so in transient in some way you treat the cause medicine for 2, 3 days.

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- **Transient**
 - treat cause
 - BDZ for 2-3 days and taper
 - Encourage sleep hygiene
- **Short term**

Taper and stop in short term went to 2 weeks of medication intermittent use sleep hygiene.

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The other illness is hypersomnia which is not very common [00:10:00] to 14 hours of sleep is almost like a sleep drunkenness state all is somnolence graph is normal is increase slow your sleep it has genetic Etiology in some people secondary can be in Narcolepsy which is correct rise by brief intense spouts of sleepiness get up relax were suddenly loose when your emotionally suddenly loose the body control and you fall sleep arouses when you get up in the morning up to bodies street paralysis when you getting up in the morning but your parties not moving .

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IDIOPATHIC RECURRENT STUPOR

- EPISODES 2HRS -4 DAYS
- VARIABLE FREQUENCY
- STUPOROSE ,COMA LIKE STATE,UNAROUSABLE
- MEN (22-67 YRS)
- EEG- DIFFUSE ACTIVITY (13-18 Hz)
- REVERSIBLE WITH FLUMAZENIL
- CAUSED BY ENDOGENOUS BDZ.

Clylevena in one of this so I will skip this Idiopathic stupor these are not may be concern but I would like to tell you.

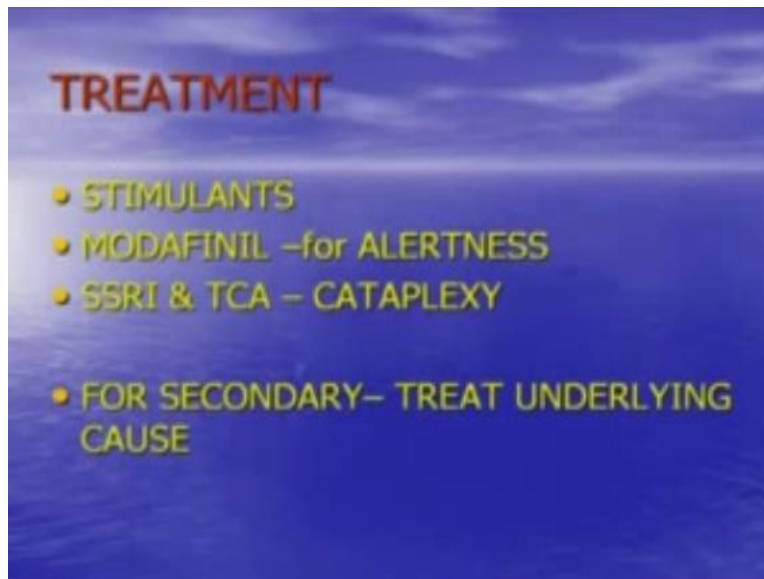
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NARCOLEPSY

- GENETIC—HLA DR2
- OREXIN(HYPOCRETIN) DYSFn
- CATAPLEXY,HYPNOGOGIC HALLUCn,
SLEEP PARALYSIS.BOUTS OF
HYPERSONMIA
- ALL NIGHT PSG AND MSLT REVEAL
SOREM AND INCREASED REM PROPENSITY

As I said these are Cataplexy, HYPNOGOGIC when you are going to sleep you have hallucination bouts of.

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These are all rare illnesses which people hardly see actually in this part of the world.

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Circadian Rhythm disturbances are there, for people like who fly across West Indies with the zone change fashion duties there is a mismatch between the internal oscillator and external

demands. Lot of people who work in shifts develops the circadian rhythm problem. The leads to insomnia or hypersomnia, fatigue , distress, delay say sleep phase night owls, advanced, jet lag you all of you travel on own.

This is because of the, you know that the difference between a clock, between east and west. Indian circadian time is five and a half hours the head of we did not which mean time. So, if you fly from east coast all the way to west or you cut across west to east you will these type of phase shifts.

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Now these are something which may be of interest some people compliant that while they are sleeping they have this crepe feeling in their calf muscles.

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PARASOMNIAS

- BEHAVIORAL OR PHYSIOLOGICAL PHENOMENON
- APPEAR DUE TO ACTIVATION OR FAILURE TO SUPPRESS DURING SLEEP PHASE TRANSITIONS

Like now these are something which is interesting, all of us may have suffered partly sometime here and there. They behavioral or physiological phenomenon which appeared due to activation or failure to suppress during sleep. So, as I told you the lot of phenomenon's which are brain is very active during sleep. So it is suppressing muscle movement, it is suppressing your rapid eye movement lot of changes that going on just any failure in this can relate in course lot of issues.

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ASSOCIATED WITH SWS

- NIGHT MARES
 - VIVID, FRIGHTENING DREAMS. RECALL INTACT
 - AWAKENING
 - AMENABLE TO CONSOLATION
 - ORIENTED
 - REM PHENOMENON
 - SELF LIMITING
 - SITUATIONAL
- NIGHT TERRORS

So these are the common things night mares all of us have harrogate. They are very vivid, frightening dreams and when you get up you can recall it. They lot of quits have it these is are phenomenon of dream sleep night mares. It is self limiting if you don't do anything just hold the child anybody who is having night mares has seen a bad dream which you call you suddenly get up with intensive heart maybe, maybe going fast and you sweating any trimmers and you can directly recall that I was seeing this bad dream.

So these are the phenomenon of the dream sleep is something called night terrors.

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ASSOCIATED WITH SWS	
<ul style="list-style-type: none">• NIGHT MARES	<ul style="list-style-type: none">• NIGHT TERRORS
<ul style="list-style-type: none">--VIVID , FRIGHTENING DREAMS.RECALL INTACT	<ul style="list-style-type: none">-- SUDDEN AROUSAL SCREAM ,CRY,INTENSE FEAR
<ul style="list-style-type: none">--AWAKENING	<ul style="list-style-type: none">-- DISORIENTED,NO RECALL
<ul style="list-style-type: none">--AMENABLE TO CONSOLATION ORIENTED	<ul style="list-style-type: none">-- AUTONOMIC AROUSAL
<ul style="list-style-type: none">--REM PHENOMENON	<ul style="list-style-type: none">-- STAGE 4 – DELTA ACTIVITY
<ul style="list-style-type: none">--SELF LIMITING	<ul style="list-style-type: none">HYPERSYNCHRONOUS, GREATER AMPLITUDE
<ul style="list-style-type: none">--SITUATIONAL	

Which happen in children and most children grow out of it, they will just suddenly, they will get up shouting and screaming they intense crying very frighten. If you try to console them, they will not get consoled that this oriented and if you ask them they will not remember anything. This is a phenomenon of stage 3, 4 into deep sleep. Because there is no dream associated with it. Similar thing with dream is a phenomenon of children get it when they are too tired and some children get it regularly and so they are schedule has to be change and there the whole they should rest settle down before they really go on to sleep.

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SOMNAMBULISM/SOMNILOQUY

- 15% of normal children ages 4 to 15 years
- Occurs during first 3 hours of sleep in non-REM Sleep: Stages 3 and 4
- Eyes are open but stare is blank
- Speech is mumbled, slurred and unintelligible
- Not well coordinated, but can do semi-purposeful acts
- Dressing
- Open and close doors
- Turn on and off lights
- Lasts for 30 seconds to 30 minutes
- Unable to awaken during episode

We have seen lot of films with this, people sleep walking. It happens in non-REM Sleep why? Because in the dream sleep your muscles are not suppose to work. So this stage 3, 4 people talk in sleep, they can, they cannot talk into in the dream sleep because the talking muscles are not working. So, these are type of you would have seen some films with all this stuff.

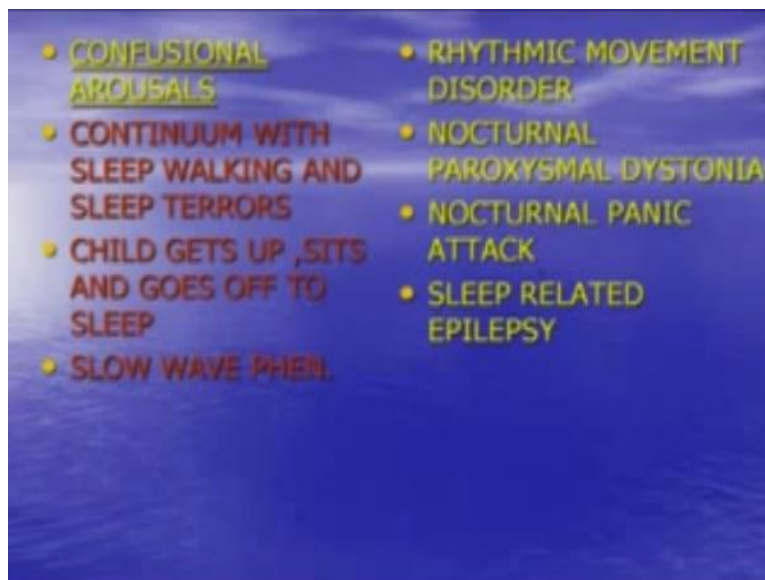
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MANAGEMENT

- SELF LIMITING
- Avoid Predisposing (leads to sleepwalking)
- Provide regular sleep-wake schedule
- Ensure sufficient sleep
- During episode
- Lead child back to bed
- Minimal interventions with child
 - Do not shake or slap child
 - Do not shout at child
- Stay by bathroom if needed
- Once in bed, episode may end
- Protect from accidents
- Gates across stairs
- Special locks on outside doors and windows
- No bunk-bed sleeping
- Situate bedroom on first floor of home

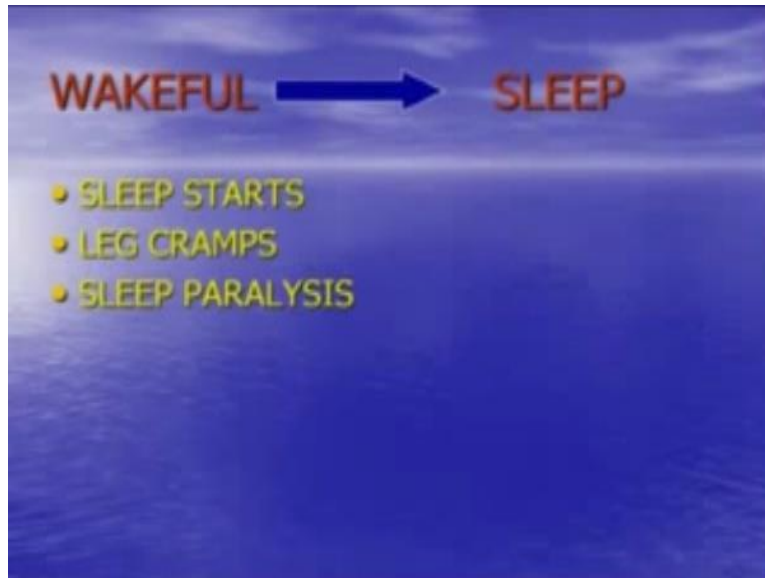
So you just self limiting episodes they are not serious things if anybody tells your kid is having you should tell them as you avoid for tea, provide regular sleep where schedule, ensure sufficient sleep during episodes, lead the child back to bed minimize intervention do not shake or slap or do not shout. So all these things have just behavioral issues. But you have to really protect the kid why all these things.

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Okay, I will skip this there is something calls.

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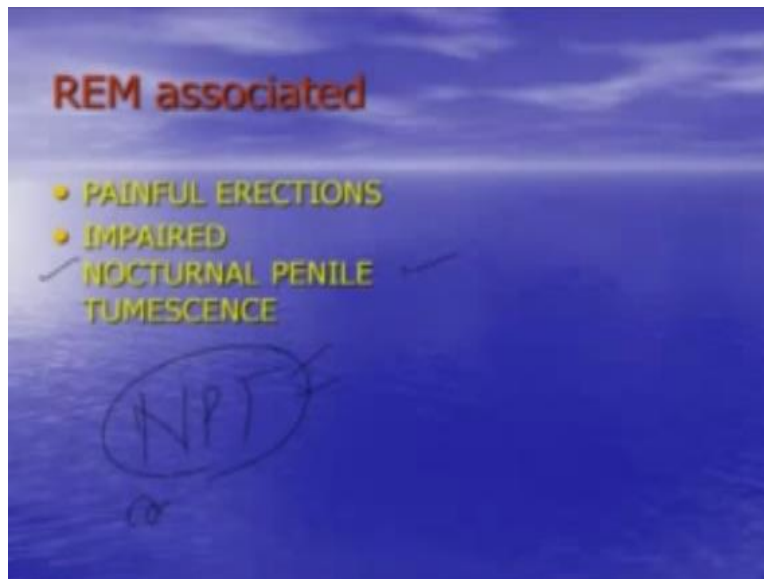


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These are type of common things which people, now this is a phenomenon with lot of this used to be REM sleep also is a phenomenon apart from this rapid eye movement and muscle atonia and big thing there they also have nocturnal erections, nocturnal penile erection.

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What we call NPT, actually it is one of the phenomenon which now simplest test if somebody is saying that they are having erectile this function and if you ask them that when you are dreaming or get up in the morning do you feel your penis misses with penises really taught and gosh with blood. If it is there then probably the mechanisms which sub serve the erection retille function are normal.

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And you results lot of kids under stress who have gain bladder control previously start doing nocturnal passing out urine in the bed in the night.

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This is something which I would like to tell you and with this. I told you the muscles are parallelized so that you do not cat on some people.

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REM BEHAVIOUR DISORDER

- MEN > WOMEN
- OLDER AGE
- FAMILIAL
- ASSOCIATED WITH NEURODEGENERATIVE DISEASES—DLB, PD
- INDUCED BY SSRI

Men more than women, older age, familial or associated with some of the degenerative disorders, induced by some of the common medication which are called as SSRI fluoxetine, paroxetine, sertraline these are the very commonly prescribed medication by doctors for depression. And these are the big culprits especially a medicine called fluoxetine, people do not realize because most people will not ask about problem.

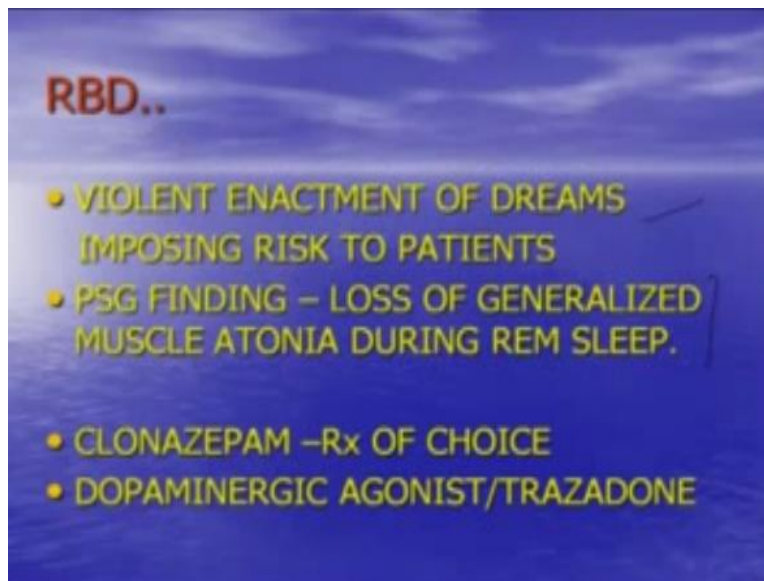
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RBD..

- VIOLENT ENACTMENT OF DREAMS IMPOSING RISK TO PATIENTS
- PSG FINDING – LOSS OF GENERALIZED MUSCLE ATONIA DURING REM SLEEP.
- CLONAZEPAM –Rx OF CHOICE
- DOPAMINERGIC AGONIST/TRAZADONE

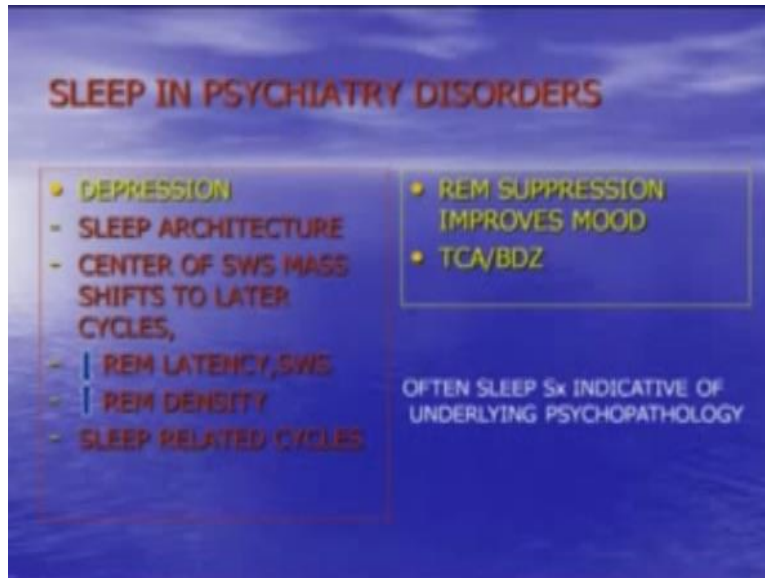
But then some people start developing enactment of dream because, because of this increase level serotonin by this SSRI's serotonin is specific re-up take any vertex the level of serotonin is high. So that system which actually parallelizes the muscle so that you not act out in your dream goes you where lot of these people.

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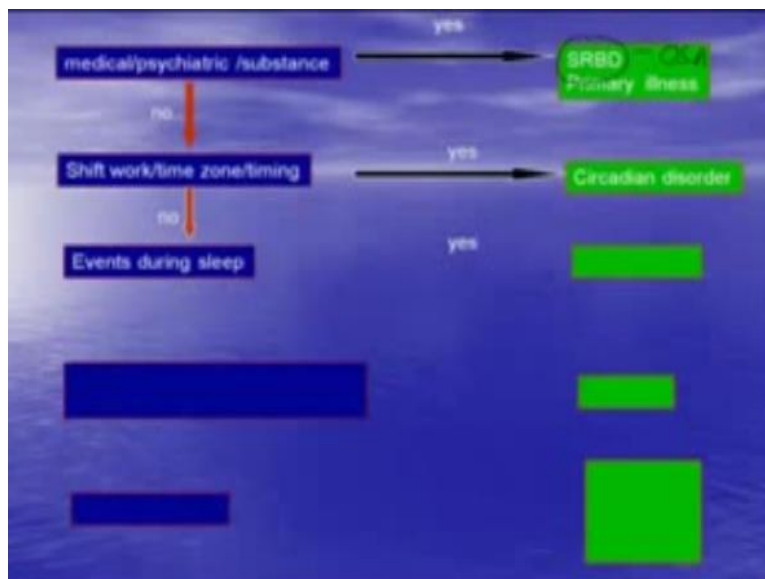
Act out on their dreams. They either are risk with themselves and to others. So this a loss of generalized muscle atonia every one but if you put on chin you will find there is lot muscle activity which should not be there in REM sleep. They act out on the some they may feel fear full and suddenly they start running or they may be really want to told to somebody and they are have been server incidence and accidents because of this.

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So sleep in psychiatry disorder is always disturbed as you said depression and these are the type of finding which you can go through.

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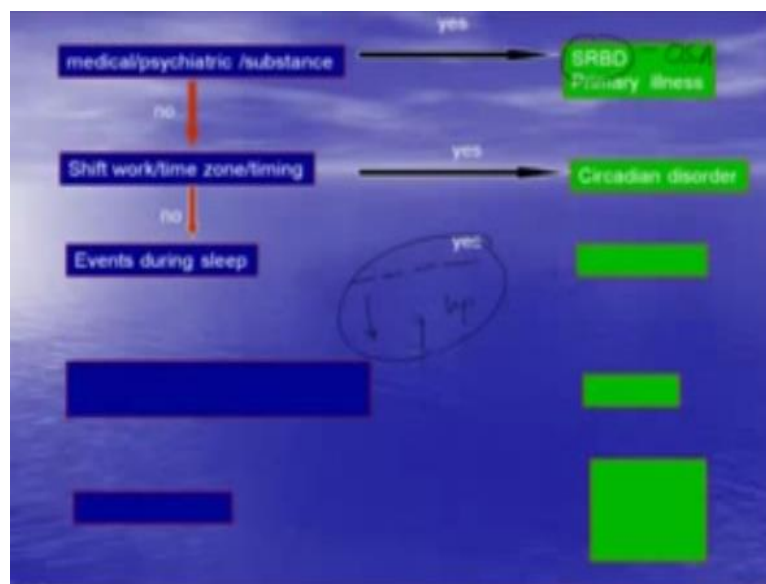


Okay, so normally what you do is this a flow chart is something calls sleep related breathing disorder. The most common illnesses called obstructive sleep apnea. I will tell you briefly about this before ending this is the most commonest cause of accidents on the road because they are the

people whose snore and when they lie down there is a obstruction to the flow of air. And because of which the oxygen levels fall down and air the oxygen level falls down it is sends with the brain and the brain goes into the, into the lighter stage of sleep.

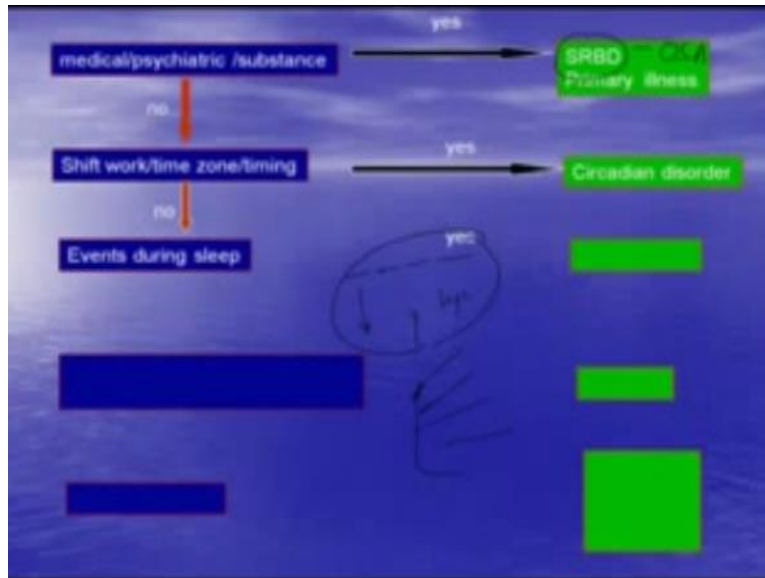
The breathing almost stops for 10 seconds or more multiple episodes more than 40 at 50 may be 100 episodes this brief episodes of 10 seconds.

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Where this is a session of breathing oxygen levels go down the brain comes to lighter stage and day after day night, after night it keeps happening. It happens in obese people, people who have short necks, people with hyper thyroid or it can happen without any reason result of which is.

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Day time trusiness, fatigue, cardio problems these people are, people are watching TV and suddenly they nap off or they sleep and can lead to server accident. It is a perfectly treatable condition 40% of its neuroses has it. So if you find somebody who has day time sleepiness in his obis suspects obstructive sleep apnea. So I land with this, this is our lecture of series and I hope you have enjoyed learning. Thank you.