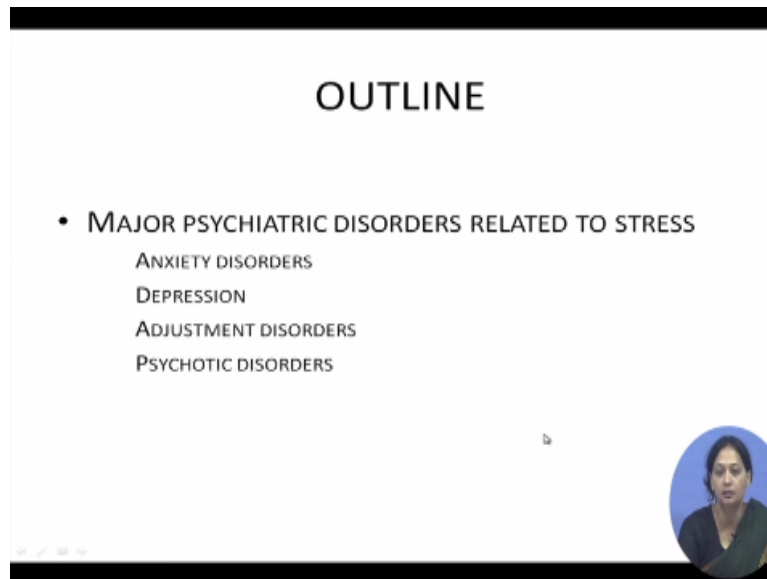


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Course Name
Stress Management
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Lecture 10 : Stress and Major Psychiatric Disorders

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Hello everybody welcome to the final module on stress psychophysiology. In today's session we shall discuss about the different psychiatric disorders that are related to stress and maybe aggravated do too stressful conditions so in today's session we will just talk about the anxiety disorders which are very much related to stress depression, adjustment disorders and also see how stress affects the psychotic disorders like schizophrenia. So what actually happens in a stressful situation we have seen that stress is associated with negative life events but positive events also may have may be stressful to an individual.

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STRESS AND PSYCHIATRIC DISORDERS

- Stress → associated with negative events,
- Positive events and experiences may be stressful as well
- Meaninglessness in life or lack of goal



For example say if an individual is has changed has got gone through a financial crisis loss of a loved one or may be going through a bad marriage these are all negative stresses, but again if there is a marriage that has just happened or there is a new job very high-paying job that an individual has got into or has got has joined the new college maybe gone to a different part of the world to join PhD in Western college, now all these factors though they are positive stresses may actually induce stress nevertheless they are stresses.

Another major stress in life is the loss of meaning or the loss meaningless or lack of goal in life we have talked about this earlier and you were talking about philosophical reasons the related to stress and several times especially among students we come across, I come across several students telling me that I really don't know what I am doing here why am i studying engineering or why am i studying medicine and what will I do after this what if, why would I join a job in Wal-Mart or Deutsche Bank is that is that what I really wanted to do when I was a child or I just wanted to learn engineering.

Several times when we are while running after our goal many times we lose track of the goal and we really do not know where we are going so once if we stop and listen to ourselves that by itself may cause stress because it may not have consonants to what our initial purpose in life was. Now

I'm not trying to scare you people but the point is that yes these are definitely some stresses that have been seen affecting you human individuals. Now talking about life events or positive and negative events in life home Sandra he actually did an extensive study and they prepared a scale where you can actually where they said that if the number of the larger number of life stresses life events may lead to depression.

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STRESS AND PSYCHIATRIC DISORDERS

**Stress is anything that challenges a person,
requiring some kind of adaptation**

**Serious stressful events include losing a loved
one, getting fired from a job, being a victim
of crime, or having conflicts with close
people**

**Stress in the environment can worsen
biological vulnerability, worsen symptoms
and cause relapses**



You can go through the homes and wire scale you can just Google it and go through it maybe I will provide a link to it also, now getting to stress and psychiatry disorders we see that stress is anything the challenge is a person requiring some kind of adaptation serious stressful events include losing a loved one getting fired from a job being a victim of crime or having conflicts with close people here we are talking of negative life events, but stress in the environment can worsen biological vulnerability worsen symptoms and cause relapses so that is how it is related to psychiatric disorders.

So some people who have the biological disposition to be or prominence to develop a psychiatric disorder may be because of a genetic disposition actually they get more while they are more vulnerable to a stressful situation then compared to one who does not have a history of

family members suffering from depression or anxiety disorders. Say if there is a student who has whose parents whose mother is very anxious or a family member is suffering from a major psychiatric disorder, during the examinations or if there is a prolonged amount of stress for a long time related to studies academy or college life the individual may be vulnerable to a breakdown as compared to others who do not have this gentle disposition.

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DIFFERENCE BETWEEN STRESS AND ANXIETY

Everyone experiences stress and anxiety at one time or another

The difference between them is that

stress is a response to a threat in a situation

Anxiety is a reaction to the stress

Now minded it does not mean that each of you start wondering, right now that if I have somebody in my family who is having a psychiatric illness I am going to get it it's not necessarily so it is just that you may have a proneness to develop an illness or a disorder now minded disorder is something that is not in order and it can be brought to order. So if you follow the systematic ways of dealing with that you will be in order so there is nothing to lose hope, now before we get on to the anxiety disorders or stress-related disorders we must understand the difference between stress and anxiety.

Now everyone experiences and stress and anxiety at one time or another what is the difference? Stress is a response to a threat in a situation most of the times it's a biological response to threat if you see in the previous sessions we have been talking about how the body responds to stress

anxiety is a reaction of the body to that stress so here we are actually talking of the psychological makeup which definitely affects the physiological makeup of the individual and what it is actually a resultant of the stressful situation, so it is a resultant of the stressor.

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Anxiety Disorders

- **Generalized Anxiety Disorders**

- If the anxiety is manifested as uncontrollable and excessive anxiety and worry about events or activities
(e.g., finances or school performance)
- Typically the worry is combined with somatic symptoms or other anxiety symptoms such as restlessness, fatigue, irritability, muscle tension, and concentration and sleep difficulties

In this case when we are talking of stress we are actually seen on simonizing it with a stressor now when we are talking of anxiety disorders. Well the this disorders are actually increased due to the Indies the individual is prone or vulnerable to anxiety disposition so these in these disorders you will see that the individuals response to anxiety is more than others of who are not suffering from disorder. So we will start off with generalized anxiety disorder in this the anxiety is manifested as uncontrollable and excessive anxiety and worry about events and activities.

So you can often you come across such an individual may be as a friend or maybe you are going through such anxiety or maybe you have seen this in a family member who constantly worries about things so we call them very often worry works but, does not mean that these individuals may have a severe break down so they are carrying on with their regular life but what happens is there is some they developed somatic or bodily symptoms, relating to the stressful conditions we

have now already covered all the areas why no persons somatic symptoms develop because of stress today we are just going to talk about the symptoms that develop in anxiety disorders.

Now here it may be so these warriors may be complaining we can see symptoms like restlessness fatigue irritability, muscle tension leading to several X and pains like headaches and migraines and other forms of muscle aches like getting cramps easily or exacerbated spondylosis and of course concentration lack of concentration it also affects the focus of attention and also the individual suffers from sleep difficulties, several times you come across people with generalized anxiety disorder complaining of not being able to eat properly or maybe they are eating too much.

So there is a dysregulation appetite also that is seen within anxiety disorders, in generalized anxiety disorder what we see is a free-floating anxiety so it is not actually focused at as particular thing the individual talks about anxiety about, he has anxiety about everything almost n the world so it could be why isn't somebody coming home early today? So a why isn't why did the teacher look at me like that? why maybe if I am going out for dinner with my friends maybe they will actually be amused with my behavior not maybe they will ridicule me so it's not only so you cannot actually point this as social anxiety, so it's focused related only to situations where there is a social in social situation.

But it could be also related to several other factors similarly like you know about anything so it could be a worry about self and help why am I palpitating so much I just climbed the stairs but doesn't but I think today I am calculating more than other times who I am I perspiring so much what will happen the exam what will happen if we don't reach that place early so basically such people are worrying about everything as, you can well understand this is also related to the personality type. Now coming to panic attack and panic disorders, now panic attack very often you will see students having a panic attack just before a presentation or before an exam or before an interview.


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Anxiety Disorders

- **Panic Attack**
 - Feelings of terror that strike suddenly and repeatedly with no warning.

Symptoms:

- "Racing" heart, Feeling weak, faint, or dizzy chest pain
- Tingling or numbness in the hands and fingers
- Sense of terror, or impending doom or death
- Feeling sweaty or having chills
- Breathing difficulties
- Feeling a loss of control



Now what happens in a panic attack is there is a feeling of terror that strikes suddenly with no or no repeated or strike suddenly repeatedly but without any warning so but this is the first time that a panic attack occurs. So it may be I often see students who complain of their first panic attack where they did not know what was happening, so there is suddenly increase of palpitation heart rate and there's a racing heart they often complain of racing heart perspiring losing control over self is this increased fear that's grasping over them and there's this faintness or dizzy feeling that I may fall down and faint.

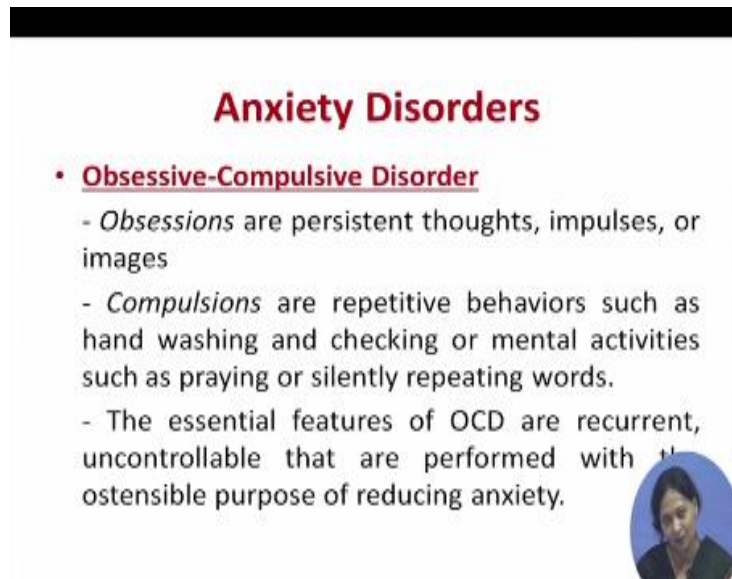
Now the individual may also be having fear sweats and cold chills and many times people complain of chill running down my spine they have breathing difficulties and as I mentioned a feeling of loss of control several times there is also a tremor accompanying it with the hands and in the legs. Now as you can understand these are all related to sympathetic activation system so if you see that these are more related to the sympathetic activity for fight or flight response but because the first panic, that does not happen with any related reason most of the times but that is that the individual can relate to this, the individual starts feeling more anxious about apprehending another attack and that brings on a panic disorder.

So most of the times of an individual having a panic attack having had a panic attack earlier may feel that a word if I go to that place again I might have another panic attack or last time when I had a panic attack my first my legs were trembling and then it then my heart was pounding and then I had a dryness in my mouth. So if there is even one symptom the individual starts looking for the other symptoms within his body so he internalizes his focus of attention and that brings on another panic attack. So this apprehension of a panic attack actually brings on a panic disorder and the even the slightest hint of one of the symptoms will bring a long panic attack.

So in a panic attack in the previous session we had mentioned about hyperventilating during a panic attack, so in a panic attack several times you will see people breathing in like taking in less oxygen breathing out more of carbon dioxide so, there's the expiration rate is much higher than the inspiration Reiter is it goes like so now we must remember that this balance of oxygen and carbon dioxide is very relevant to the body and it is also related to whether we are going to develop the symptoms of a panic attack. So the when a person hyperventilates this also increases the panic symptoms.


So this the panic attack most of the times does not last for long, so it could be for a few minutes only but this called this fear that this may actually I may lose control and this may actually drop me down dead most of the times people feel that I'm going to through a heart attack brains around brings along more of these symptoms and the brings along the panic disorder in future. So if you ever have had a panic attack don't worry, it's going to just last for a couple of minutes you just need to sit down in a place where and remove people from encircling you or you know fall reducing the amount of oxygen by just standing over you.

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Anxiety Disorders

- **Obsessive-Compulsive Disorder**
 - *Obsessions* are persistent thoughts, impulses, or images
 - *Compulsions* are repetitive behaviors such as hand washing and checking or mental activities such as praying or silently repeating words.
 - The essential features of OCD are recurrent, uncontrollable that are performed with the ostensible purpose of reducing anxiety.



So just relax and just tell yourself to calm down it's going to go away in a few minutes and believe me this is not a heart attack so, there's nothing to feel panicked about it now coming to obsessive compulsive disorder this is also another disorder, which is it's an anxiety disorder and it is another form of expression of anxiety. Now in obsessive-compulsive disorder an individual has recurrent obsessive thoughts so these are thoughts which may be related to cleanliness which may be related to checking things it's like oh, this place is dirty and I need to clean this place it could be that have I locked my door? Have I put in my admit card inside my bag let me just check it once again.

So now the many people may feel like this then why do we call this a disorder when do we call this a disorder it is a disorder when the thought you done it once and after sometime this thought has, this thought has come and you've actually checked it once you check that you admit card is within the bag with in your bag but you know after a time the thought comes back again and you need to check again. So you need to follow that compulsive behavior again to stop that talk now that becomes a side and this is a way of Excess anxiety okay.


So you know if anybody has this obsessive checking of obsessive washing or OC features of counting I need to count three before i go for the exam i need to pray in multiples of three before going to an examination hall, if any of you are suffering from these you just need to tell yourself, that well this is all in my mind and this is also related to magical thinking, if i count tries in no way is it going to affect my people in the examination hall.

Thought if I if I checked twice it doesn't mean that my I have the first time was enough to actually assure me that the admit card is in the bag but, believe me there are strategies to deal with this but it's not all hopeless and but you need to also if these symptoms are bothering you excessively then you need to consult a doctor and other than following these stress management techniques that I will be talking about in the next two modules two weeks you will you will it would be if you have several times you will be helped this by these and you do not need any additional checkups.

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Acute Stress-Reaction

- A mental condition that can occur following exposure to extreme stress or trauma
- Symptoms must last for *at least 2 days up to 4 weeks.*
 - **Intrusive symptoms**
 - **Avoidance**
 - **Hyperarousal**



But if you actually feel that this is really obstructing your daily routine then you need to check out with a doctor once, now going to the next stress disorder which is an acute stress reaction this is very very related or relevant to stress induced illness. Now mind you when I am talking of

the acute stress disorders, anxiety disorders they are all related to expression of anxiety or a reaction to a stressful situation in different ways. So it is actually how the psychology of the human psychology is responding to anxiety.

Now people would respond indifferent ways so if it is actually not affecting your occupation your social life and your body then you are fine, then and if it's helping you to perform we spoke about you stress and distress in the first week well you know stress could be helpful to perform but if it is not helping you and it's aggravating the symptoms then you need to really be very about it. Now in acute stress reaction it is a mental condition that can occur following exposure to extreme stress or trauma and the symptoms may last were at least two days to up to four weeks.

What happens is here the all the symptoms of sympatric arousal are seen so basically you have avoidance symptoms, avoidance of the stimulus that may have caused the stress there may be recurrent dreams and distressful visions of the stressful situation of the trauma as if an individual has undergone an accident or is a victim of abuse then these symptoms could be very often seen. Now if they could be a hyper arousal so which is representative of that state so, even when that individual is not in that acute stressful situation is or her body may be undergoing the arousal that was present during that situation.

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Post-traumatic Stress Disorder

- The symptoms last for a period of at least a month following the traumatic event
- **Acute** - symptom duration of 3 months or less) or **Chronic** (symptom duration of more than 3 months).
- The onset of PTSD can be delayed for months and even years
- **Intrusive re-experiencing , Avoidance, Hyperarousal**

So this can be very distressing to the patient and it may be accompanied by all the sympathetic activation arouses, like palpitations like sweating of palms perspiration, shortness of breath and other panic related symptoms also. Now again if the trauma of is followed is if, there's anxiety reaction follows a trauma then travel times may be between three months or maybe even after three months that is after a certain period of time then we call this a post-traumatic stress disorder. So why is it called post-traumatic stress disorder, it is because it is following the stressful situation so here the symptoms last for a period of at least a month following the traumatic event.

Now in acute poor PTSD the symptom duration of 3 is of three months or less and in chronic it is for more than three months, several times the onset of post-traumatic stress disorder could be delayed for months and even after years, so here many times the individual also the individual has the same symptoms as an acute stress reaction, but it could they could also have be realization and depersonalization and dissociative reaction. So something like not being able to remember the traumatic event or it is all very also followed by bursts of emotional reactions like crying and anger outbursts and also for children post-traumatic stress in PTSD we come across any races or bedwetting at night and it may be also followed by depression several times.

Now PTSD I'll just give you a personal experience that I had it was very unfortunate in the year 2000 after the earthquake in Gujarat I was there too, as a psychologist to help people from the trauma suffering who is suffering from the trauma and there I came across several children and adults who were suffering from post-traumatic stress disorder. So we saw that many most of them had lost everything that they could call their room, so the house was gone, their families were gone they had nothing to call their call of their own and they were living in tents built by there was a tent city that was made by Vinod Khanna and this was I'm talking about gandhidham which was near bhuj and here they were the people the survivors were kept in 10 cities and there wasn't a single family who hadn't lost somebody.

Many children we saw suffered from bedwetting, crying out at night suffering from nightmares and unusual blanks in memory many times you also see a bluntness of emotions in post-traumatic stress disorder there we saw some children talking about their schoolteachers who had died and several of their friends, who had died very casually, so it's not that they did not care about them but there were there were so many people and so many things that they had lost that it was somehow at that point in time there they could not grasp anymore or they could not take it anymore, so there was an emotional bluntness that was also seen with PTSD.

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Depression and Stress

Depression is caused by stress or if depression itself is a form of a stressor?

- The stress exposure can cause the glucocorticoid hormone to be overly active which causes a depletion of norepinephrine levels in locus coeruleus neurons. This has an effect of slowing the attentiveness within the individual. They become emotionless and inactive (Salzano, 2003).
- Perceived stress
- Sense of lack of control

If an individual experiences great anxiety because of constant thought about a stressor, their fight or flight mechanism could be in perpetual heightened response. Just thinking about the stressor could set off the elevated response. These stresses amount to a constant initiating of the response multiple times a day if the thoughts preoccupy the individual

Now we will get to depression and stress, so the major question that arises when we talk of depression is whether it is caused by stress or is it itself a form of a stressor so, Salzano in 2003 states that the stress exposure which causes a depletion of the new non epinephrine levels in the locus coeruleus neurons. Now this has an effect of slowing the attentiveness with the individual and they become emotionless and inactive so, several times we see that there is also an emotional bluntness in depression and this could be one of the physiological reasons for it.

Now depression very often comes from but the perceived stress so how the individual is perceiving the stress it may also be related to depression, whether he will feel sad about it or depression diagnostically does not mean only sad but also an Anhedonia or losing of lack of pleasure in most activities this other than loss of appetite dysregulation of appetite and also sleep disturbances know and loss of motivation and overall apathy for things and excessive fatigue. So if an individual is suffering from these symptoms you will have to see and may not become be complaining about feeling sad but he may be suffering from depression, now depression again is also because of a sense of lack of control so, when an individual has a perceptual style of feeling that I am not in control over my situation.

Earlier when we were discussing Cobus as experiment we saw that most of the managers who thought that they could not control the situation were likely to develop more illnesses same with depression if an individual loses hope if an individual feels that there is nothing in the world for me or nothing in the future that I can look up to that may also be causing depression in that and say so this is more relevant because it depends on how the individual is perceiving the stressor. So also if an individual experiences great anxiety because of the constant thought about a stressor their fight or flight mechanisms could be in perpetual heightened response.

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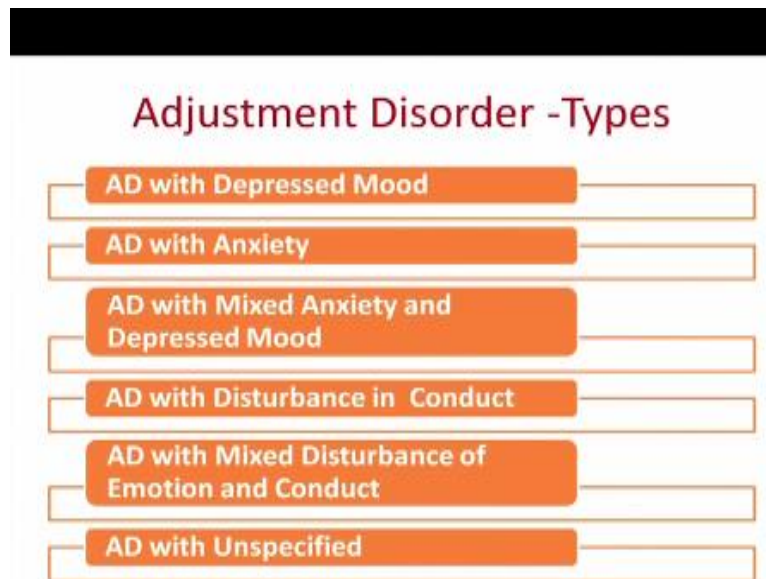
Adjustment Disorder

- Development of emotional or behavioural symptoms in response to one or more identifiable psychosocial stressors.
- Chief complaint may be a nervous breakdown, inability to manage problems of life, or anxiety or depression associated with a specific stressor
- Patient's history reveals normal functioning before the onset of the stressor

Just thinking about the stressor could set off the elevated response these stresses amount to a constant initiating of the response multiple times a day if the thoughts preoccupy the individual and as you can see it will exhaust the individual and also bring about a sense of hopelessness and helplessness now that brings us to the adjustment disorders, so adjustment disorders are because of emotional or behavioral symptoms in response to one or more identified psyche psychosocial stressors. So it could be related to a new situation where adjustment becomes a problem or maybe a new place or new people now say we must I see that the previously the patient revealed

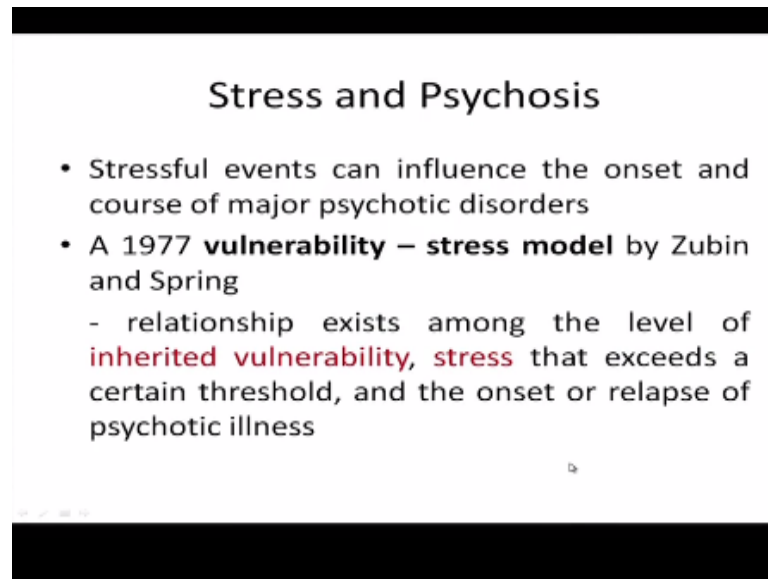
normal functioning before the onset of the stressor so before that if a person was absolutely okay before he joined the new job then we will have to see if there is something wrong with the job or there's something wrong with the person in the way he is perceiving the job and its characteristics.

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So that brings out us to the different types of adjustment disorders, so adjustment disorder could be with depressed mood could be with the anxiety could be the adjustment disorder of mixed anxiety and depressed, mood and disturbance of conduct where the individual is more aggressive, violent and performing in socially inept ways and is several times it is seen as a mixed disturbance of emotion and conduct and several times it may be unspecified or may not be within any of these groups. But definitely the individual is showing a response to a stressor that is affecting his system.

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Stress and Psychosis

- Stressful events can influence the onset and course of major psychotic disorders
- A 1977 **vulnerability – stress model** by Zubin and Spring
 - relationship exists among the level of **inherited vulnerability**, **stress** that exceeds a certain threshold, and the onset or relapse of psychotic illness

Now that brings us to stress and psychosis so, we have seen that stress is not necessarily always the reason for developing a psychiatric illness, specifically psychosis but we have the vulnerability stress model shows that if the individual has inherited above the vulnerability, then stress may exceed that threshold and that way there can be an onset of a psychotic illness or also a relapse of a psychotic illness that was already existing. So it could be that if an individual had this vulnerability or genetic disposition which I was talking of earlier. Now for psychiatric psychotic illness then the stress acts as a diocese and it increases or exacerbates the probability to develop the psychotic illness or a psychotic breakdown in this case.

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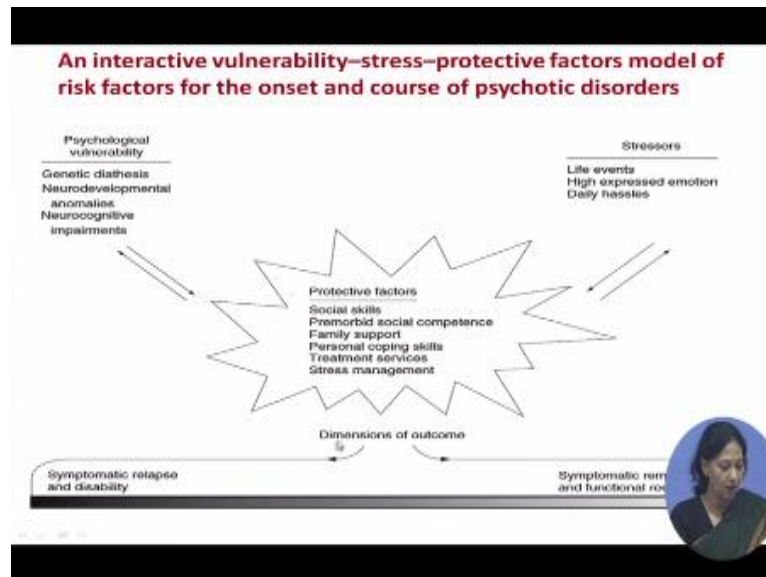
Schizophrenia and Stress

- **Kudoh, Sakai, Ishiria, & Matsuki, (2001) :**
found that Schizophrenic patients have longer healing times after major surgeries
- **Conclusions:** schizophrenic patients had a reduced ability for cytokine to fight inflammations. The reason for the findings could be explained by a schizophrenic's hypothalamus-pituitary-adrenal dysfunction

I will not get into the details of psychotic illnesses I just talked about one study of schizophrenia and stress where kudo and others found that schizophrenic patients have longer healing times after major surgeries and they deduced that it could be because of the schizophrenics dysfunction of the HPA axis, I will not get into the details of schizophrenia, the different types of schizophrenia etc but we will see that.

Whenever we are talking of psychotic disorders the cell the major reasons for the psychotic disorders are the stresses, this is a model which is which can be addressed like stress the different life events high express emotions daily hassles eat these could act as stresses and of course the genetic vulnerability or the neurocognitive disabilities, impairments or neuro developmental abnormalities could add on.

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And this may once we will have to see how the protective factors are protecting, that is why they are protective factors how they are actually helping the person to deal with these stresses now if the protective factors are absent or they are weaker than the they do not have the ability to deal with the vulnerability and the stresses then the outcome may be a relapse or symptomatic relapse and disability and if the protective factors are active then there can be a remission and a functional recovery.

So that brings us to but the increasing resiliency against stress but before that I just like to mention one more disorder that I haven't mentioned in the slides which is again related to stress that brings us to social anxiety disorder or social phobia which is which it is often called.

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Increasing Resiliency against Stress

- Developing effective coping skills for managing stress and persistent symptoms
- Getting involved in meaningful activities that structure one's time and reduce the stress of having nothing to do
- Building socially supportive relationships that help one manage the mental health disorder and maintain sobriety

Now people suffering from social anxiety disorder have fear of being ridiculed in a stress in a public situation, so in this case the primary stressor is an environmental stressor so we've talked about this earlier but I thought it, would be important that I mention I there as well so how do we deal with stress and how do we stop these major psychiatry disorders affecting us. What is important is building resiliency.

So, it is developing effective coping skills for managing stress and persistent symptoms getting involved in meaningful activity so that you don't feel meaning any longer and we structure ones time and reduce the stress of having nothing to do and also building socially supportive interpersonal interactions and relationships that is beyond mind you for students this is beyond the virtual networks so it is more of face-to-face interactions with people where you actually share your emotions share your problems and that really helps to keep a mental disorder away. Thank you.