STRESS DIATHESIS MODEL

DIATHESIS:

To understand stress, it is important to understand the concept of diathesis ('dia' i.e. 'as under' and 'tithenai' i.e. 'to place') which is often relevant and associated to stress in the field of psychology. It was in the 1800s, stress came to be understood as one of the causes of development of illness and the concepts of stress and diathesis/vulnerability were clubbed together in the explanation of underlying causes of many mental and physical disorders including schizophrenia.

The term diathesis is the vulnerability factor which is responsible for a person to develop a disorder where stress is referred as any cause/ event which strains the persons adaptive capacity and interrupts their routine functioning.



This can be seen in cases of many physical as well as mental disorders and explains why the health professionals emphasis on the role of stress and management of stress during the course of treatments.

According to Ingram et.al (1998), diathesis/ vulnerability is a trait i.e. inherited, is stable but can change, is endogenous to people, and is usually latent (hard to recognise until provoked by stressor). Therefore, how stress may impact people may fluctuate depending on the function of new learning experiences- which is the notion on which therapy is based.

Some of the *examples* of diathesis are *Genetic factors; Early life experiences*: loss, trauma; *Situational factors*: low socio-economic status, parent with depression; *Psychological predisposition*: impulsivity, learning experiences, and cultural and family factors.

STRESS:

The most accepted definition of stress was coined by Richard S Lazarus who wrote *"stress is a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize"*.



While stress reactions are often perceived as negative; evolutionarily, we all need a certain amount of stress for adaptation, survival, and motivation. Some such examples of Eustress/ positive source of stress can be job promotions, getting married, children moving out of home, going to college etc.

Our reactions to stress whether adaptive or maladaptive can depend on certain factors such as how vulnerable is the person to the type of stress, importance of the stressor in the person's life, what's the duration of the ongoing stress, is the stress an independent event or occurring with other stressors, perception of control over the stressors, person's acquired resources and social support etc. In the cases of stress, the best responses may involve removal of source of stress, having a sense of control over it and/or learning to relax.

THROUGHOUT THE LIFESPAN:

According to most diathesis-stress models of psychopathology, the point of which people will develop a disorder is varied and dependent on interaction between risk and degree of stress. Therefore, while the risk factors are present in everyone, the 'when' of development of disorder is different. For example, an extroverted individual with strong social support (which becomes a protective factor), when experiencing stressors may delay or prevent the development of depression as compared to an individual with little or no social support. This is also true in case of recovery and many forms of therapy therefore include stress management as a course of treatment.

This is the reason why windows of vulnerability for developing specific psychopathologies are believed to exist at different points of the lifespan. For example, breakups and loss are implicated in the development/relapse of depression or manic phases of bipolar disorder and can also prevent recovery from happening; having a genetic disposition for becoming addicted and later engaging in binge drinking in college are implicated in the development of alcoholism; having a family history of schizophrenia combined with the stressor of being raised in a dysfunctional family raises the risk of developing schizophrenia.

DIATHESIS IN DAILY LIVING:

Diathesis or biological predisposition has been recognised to affect us even in our daily lives. It can affect our perception of stress eg: constant noise pollution in environment, life course and changes, experiences of

bullying, type of friends and romantic partners we choose, jobs, places, preferences and difficulties in decisions making, nature of person such as extrovert/ambivert/ introvert.

STRESS AND MENTAL DISORDERS:

Stress influences the development of many mental illnesses by common mechanisms. The effects of stress often leads to increased cortisol levels in hippocampus and the Hypothalamus-Pituitary-Adrenal (HPA) axis which then has consequences such as alterations in intracellular levels in neurons and metabolic changes, ultimately affecting neurogenesis and plasticity of the brain and increasing cardiovascular and muscular risk factors.

The numerous theories of cause of mental disorders focus on a variety of factors including genetic, biological, physiological, cognitive, and social stressors. For example, some of the stressors significantly associated with Alzheimer's Disease onset included the loss of a parent during childhood, arduous manual labour, physical illness in a spouse during old age and serious illness in an offspring. These findings are found in animal studies as well where in childhood experiences alter the noradrenergic and serotonergic functions in adulthood years and impact the rate of aging.

Similarly, the episodic and ongoing stressors can precipitate substance abuse and/or relapse. For instance, a key assumption is that childhood vulnerability is the result of childhood adversity including inadequate parenting, parental drug use, psychopathology or deaths which could expose the child to risky interpersonal and unsafe situations. These type of adverse childhood experiences can lead to a diathesis of a "fragility in psychological makeup" and vulnerability to future maladaptive behaviours during adulthood.

There is also consistent evidence that associates prenatal stressors with increased risk of developing schizophrenia. Even though, genetic vulnerability is difficult to control, an awareness of stressors that increase the likelihood of genetic vulnerability being actualized supports preventive strategies, such as good prenatal health care and nutrition. Furthermore, in the event of life stresses exacerbating the course of illness, access to good quality medical and mental health services and positive and strong social supports systems for the person as well as the caregivers can be beneficial in the long-term outcomes and relapse prevention interventions.

Genetic components, biochemical imbalances, and stressful life circumstances such as family conflict, employment difficulties, bereavement or positive events like marriage, moving house, having children etc can place extra demands on the person, leading them to feel stressed, frustrated, anxious and sad. The occurrence of bipolar can be explained as an interaction between these three factors.

There is also growing literature on vulnerability models of depression in young adults. For example, insecure attachment and impaired ability to regulate affect during a child's early years have been identified as a key link to depression, particularly chronic or recurrent forms of depression. These vulnerabilities arise from the interaction of the characteristics of the child (e.g., genotype, physical attributes, temperament) and attributes of the attachment figure (e.g., parental behaviour and maternal attachment history). Difficulties in attachment can often lead to negative cognitions regarding concept of self, negative affect and difficulties in emotional regulations putting the individual at risk for depression in the presence of environmental stressors. Perceived competence and peer and parental support are also key risk factors for depression in adolescents, acting through their influence on self-worth, affect, level of dependent interpersonal stress and hopelessness. Aaron Beck, creator of CBT suggested that dysfunctional attitudes acting as diathesis interact with significant life stresses and gives rise to pessimistic depressive thoughts and symptoms.

According to the "cry of pain" model (Williams and Pollock, 2001), suicidal behaviour represents the response to a situation that has three stress components: Sensitivity to signals of defeat, Perceived "no escape" and Perceived "no rescue".

There is also considerable evidence showing that the reactivity, or sensitivity, of the anxiety system has an inherited component which is when combined with physiological arousability and the learned behavioural perception that aversive events are unpredictable and uncontrollable (psychological vulnerability) is likely to

develop chronic and intense anxiety. Scanning for threats at sub-conscious level and favouring the threatening interpretations of neutral/ ambiguous situations can often cause Generalised Anxiety Disorder.

TREATMENT PLANS AND PROTECTIVE FACTORS:

Treatment plans inclusive of stress and diathesis models focus on identifying stressors in the persons environment, factors that tend to increase/decrease the symptoms and protective measures (include medications, skill building, relaxation techniques, and the development of social and clinical support systems) that helps the person to deal with such stressors. Reducing and avoiding stressors can also help to postpone, avoid, or better the predictive course of some mental illnesses in those people who have a genetic vulnerability but are not yet showing the symptoms.

Protective factors are also important to consider since they can mitigate and buffer against the effects of major stressors by providing adaptive exits to deal with the stress. Examples of protective factors are healthy attachment styles, supportive peer network, and individual social and emotional competence.

The understanding of protective factors has allowed mental health workers, family members, and clients to create a sophisticated personal profile which is a more humane, effective, efficient, and empowering treatment practice with an understanding of what causes, what hurts and what prevents.