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# UNIT 3 DEVELOPMENTAL PATHOGENESIS

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## 3.0 INTRODUCTION

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The intricacies of human development have always fascinated psychologists. Psychologists have studied developmental processes and used the knowledge gained from these investigations for better understanding of the changes that predictably occur in the later stage of life. This has made possible to link more effectively early precursors to the later expression of maladaptive and deviated behaviours. First of all, we will discuss general issues related to developmental pathogenesis. This will be followed by a description of biological causes of psychopathological development. Finally, psychosocial and socio-cultural factors of psychopathologies will be discussed.

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## 3.1 OBJECTIVES

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After reading this unit, you will be able to:

- Understand the risk factors of psychopathology;
- Explain the biological perspectives of developmental pathogenesis;

- Discuss the psychosocial causes of psychopathology; and
- Describe the socio-cultural factors of psychopathology.

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### **3.2 DEVELOPMENTAL PATHOGENESIS: RISK FACTORS**

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The risk factor model is a paradigm that facilitates the understanding of developmental deviations. It can be applied at any stage of development. Risk factors have been divided into three large categories: those at the level of the individual, the family and the community.

The first category of risk factors is defined at the level of the individual. Both physical and emotional considerations are relevant. Examples include atypical genetic polymorphisms, deficits in perception and high levels of generalized anxiety. Variable possibilities for adaptation exist, but for a trait or condition to be considered a risk factor, there must be a demonstrated increase in the probability of subsequent emotional or behavioural disorder associated with the factor.

The second category of risk factors is conceptualised at the level of the family. One of the classic examples of a familial risk factor is a parent with a serious mental illness. It is difficult to define the mechanism by which this risk is transmitted. Each parent provides exactly one-half of the genome of the child. However, parents are also in a powerful position to shape the early environment of their children. The full range of family risk factors is quite broad, and extends beyond the influence of single individuals within the family to include the impact of family dynamics, which influence the development of the child. For example, a scapegoated child in a family environment that tolerates overt child maltreatment is at particularly high risk for the development of psychopathology.

The third category of risk factors is defined at the level of the community. Discrimination based on ethnic or racial status falls into this group of risk factors, as does social disadvantage. Although there is little controversy regarding the negative consequences of discrimination and poverty, the quantification of this risk has been problematic. Community risk factors rarely occur in the absence of individual and familial risk factors, making it difficult fully to understand their specific influence.

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### **3.3 DEVELOPMENTAL CAUSES OF PSYCHOPATHOLOGIES**

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There have been a number of viewpoints regarding causal factors of psychopathologies. These viewpoints represent any of the many approaches to study human behaviour. None of these viewpoints completely explains abnormal behaviours and therefore, integrative evaluation of these viewpoints is essential. The major viewpoints of developmental pathogenesis are biological, psychodynamic, behavioural, psychosocial and socio-cultural viewpoints. All these viewpoints explain abnormal behaviour with the help of certain sets of causal factors.

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### **3.4 BIOLOGICAL CAUSES**

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Biological viewpoint believes that cognitive, emotional and behavioural symptoms of psychological disorders originate from disorders of nervous system and endocrine system or they are inherited. A number of these causes are operative during pre-natal and post-natal developmental stages. These causes include genetic vulnerabilities, constitutional liabilities and physical deprivation.

### 3.4.1 Genetic Vulnerabilities

Genetics means what we inherit from our parents. This suggests how we look, feel and behave is predetermined by our genetic makeup. The field of behaviour genetics deals with phenomenon how genetic information in form of chromosomes from both father and mother is transmitted to children. Chromosomes contain genes; the genes transmit a biochemical code, which is responsible for determining the structure and activity of the body's protein. At the biochemical level, the genetic code leads to physiological and physical differences. These differences include like height, weight, colour of hair and colour of eyes, which are the result of number of different genes.

*Behaviour genetics* is the study of individual differences in behaviour that are attributable in part to differences in genetic makeup. The total genetic makeup of an individual, consisting of inherited genes, is referred to as the *genotype* (physical sequence of DNA), which is an individual's unobservable genetic constitution. In contrast, the totality of observable, behavioural characteristics, such as level of anxiety, is referred to as the *phenotype*. The genotype is fixed at birth, but it should not be viewed as a static entity. Genes controlling various features of development switch off and on at specific times, for example, to control various aspects of development. Indeed, genetic programs are quite flexible—they respond in remarkable ways to things that happen to us.

The phenotype changes over time and is generally viewed as the product of an interaction between the genotype and the environment. For example, an individual may be born with the capacity for high intellectual achievement, but whether he or she develops this genetically given potential depends on such environmental factors as upbringing and education. Hence, any measure of intelligence is best viewed as an index of the phenotype. A recent study by Turkheimer and colleagues confirmed this proposition (Turkheimer et al., 2003). A number of studies have demonstrated high heritability for IQ (Plomin, 1999). What Turkheimer et al. found, though, was that heritability depended on environment. The study included 319 twin pairs of 7-year-olds (114 identical, 205 fraternal). Many of the children were living in families either below the poverty line or with a low family income. Among the families of lower socioeconomic status (SES), 60 percent of the variability in children's IQ was attributable to the environment. Among the higher SES families, the opposite was found. That is, variability in IQ was more attributable to genes than environment. Thus, being in an impoverished environment may have deleterious effects on IQ whereas being in a more affluent environment may not help all that much.

As we noted above, we know now that genes and environments work together. Life experience shapes how our genes are expressed, and our genes guide us in behaviours that that a given person's sensitivity or reaction to an environmental event is influenced by genes. Adoption studies can be a method for studying gene–environment interaction. In one study three groups of adoptees were compared on the criterion of antisocial personality disorder (APD): (1) adoptees who had a biological parent with APD and were raised in an unhealthy adoptive family (e.g., parental conflict, abuse, alcohol/drugs in the adoptive family), (2) adoptees who had a biological parent with APD but were raised in a healthy family; and (3) adoptees who had no biological parent with APD but were raised in an unhealthy adoptive family. This was found that adoptees of the first group were more likely to develop APD than two other groups of adoptees (Cadoret et al., 1995). Thus, genes (APD biological parent) and environment (unhealthy adoptive family) worked together to increase the risk for developing antisocial personality disorder.

A different (and true) example of a gene–environment interaction involves depression. In one longitudinal study, a large sample of children in New Zealand was followed across time from the age of five until their mid-twenties (Caspi et al., 2003). Across this time, the researchers assessed a number of variables, including early childhood maltreatment (abuse) and depression as an adult. They also measured a particular gene called the **serotonin transporter gene** (5-HTT). This gene has a polymorphism such that some people have two short alleles; some have two long alleles, and some have one short and one long allele.

They found that those individuals who had either the short-short allele or the short-long allele combinations of the 5-HTT gene and were maltreated as children were more likely to have depression as adults than either those people who had the same gene combination but no childhood maltreatment or those people who were maltreated as children but had the long-long allele combination of the gene. Thus, having the gene was not enough to predict depression, nor was the presence of early life stress. Rather, it was the specific combination of the gene configuration and environmental events that predicted depression. They found the same gene–environment interaction for having at least one short allele of the gene and reports of stressful life events. That is, those people who reported a good deal of stressful life events and had at least one short allele of the 5-HTT gene were at greater risk of developing depression.

It is critical to recognise that various mental disorders are disorders of the phenotype, not of the genotype. Thus, it is not correct to speak of the direct inheritance of schizophrenia or anxiety disorders; at most, only the genotypes for these disorders can be inherited. Whether these genotypes will eventually engender the phenotypic behaviour disorders will depend on environment and experience; a predisposition, also known as a *diathesis*, may be inherited, but not the disorder itself. A genetic diathesis is a tendency that can be expressed or not depending on environmental circumstances.

### 3.4.2 The Neuro-Endocrine System

The neuro-endocrine system has been implicated in psychopathology and the most important neuro-endocrine system system is the *HPA axis*. The HPA axis is central to the body's response to stress, and stress figures prominently in many of the psychological disorders. When under stress or faced with threat, the hypothalamus causes corticotrophin releasing hormone (CRF) to be released, which then communicates with the *pituitary gland*. The pituitary then releases adreno-corticotrophic hormone, which travels via the blood to the adrenal glands. The outer layers of the adrenal glands are referred to as the *adrenal cortex*, the stress hormone. This is not a fast moving system like the autonomic nervous system rather; it takes about 20 to 40 minutes for cortisol release to peak. After the stress or threat has remitted, it can take up to an hour for cortisol to return to baseline (i.e., before the stress) levels (Dickerson & Kemeny, 2004).

Studies in this area are uniquely integrative. That is, they begin with a psychological concept, stress and examine how stress is manifested in the body, the HPA axis. For example, in a series of animal studies, researchers have shown that rats and primates that are exposed to early trauma, such as being separated from their mothers, show elevated activity in the HPA axis when they are exposed to stressors later in life (Gutman & Nemeroff, 2003). Like gene–environment interactions, it is hard to consider biology and environment separately—biology may create increased reactivity to the environment, and early experiences may influence biology. Thus, chronic stress and

its effects on the HPA axis are linked to disorders as diverse as schizophrenia, depression, and posttraumatic stress disorder.

### 3.4.3 Physical Handicaps

Pre or post-natal abnormalities or environmental conditions may result in physical defects. The most common birth difficulty associated with later mental disorders is low birth weight. Low birth weight is most often a factor in premature births. Nutritional deficiencies, disease, exposure to radiation, drugs, severe emotional stress, or the mother's excessive use of alcohol or tobacco are some common causes of low birth weight. As might be expected, socio-economic status is related to fetal and birth difficulties, the incidence of which is several times greater among mothers of lower socio-economic levels (Kopp & Kaler, 1989). Because low birth weight is often associated with so many environmental adversaries, it is often difficult to disentangle which actually play a causal role in the negative outcomes that may result.

### 3.4.4 Early Physical Deprivation

Through a remarkable set of complex processes, our digestive, circulatory, and other bodily functions work to maintain our body's physiological equilibrium integration. However, injuries and diseases strike all of us from time to time and upset our normal equilibriums, the psychological repercussion from such events can be profound. Depressions, for example, frequently accompany significant physical illnesses, in part because illnesses painfully remind us of the limits of our control over our lives. Even without serious illness or disability, people may experience challenges to their equilibriums. In the following section, we deal with two such situations deprivation of basic physiological needs and non-optimal levels of stimulation.

**Deprivation of Basic Physiological Need:** The most basic human requirements are those for food, oxygen, water, sleep, and the elimination of wastes. It is recognised that chronic but even relatively mild sleep deprivation can have adverse emotional consequences in children and adolescents. For example, in an extensive review of the empirical literature Carskadon (1990) demonstrated that over the course of adolescence there is a pattern of decreasing total sleep time. This pattern was associated with a good deal of daytime sleepiness. She argued that the performance lapses that are associated with excessive sleepiness could in turn lead to an increased vulnerability to accidents and to the use of caffeine and alcohol, and to mood and behaviour problems.

Prolonged food deprivation also affects psychological functioning. In one study, semi-starved persons became irritable, unsociable, and increasingly unable to concentrate on or daydream about anything but food. The men's predominant mood was one of gloom and depression, accompanied by apathy, feelings of inadequacy, and loss of interest in sex (Keys et al, 1950). The most tragic deprivation is seen in malnourished young children. Severe malnutrition is associated with a host of other potentially damaging variables such as parental neglect and limited access to health care (Lozoff, 1989) impairs physical development and lowers resistance to disease. It also blocks brain growth resulting in markedly lowered intelligence and enhanced risk for disorders such as attention-deficit disorder (Lozoff, 1989).

**Stimulation and Activity:** We have known for some time that healthy mental development depends on a child's receiving adequate amounts of stimulation from the environment. In addition to psychological vulnerabilities that can be induced by too little stimulation the physical development of the brain is adversely affected by a lesser environmental

stimulation. Conversely, biological development is enhanced by enriched and complex environment. These include changes in brain chemistry and structure. On the other hand, there are limits to how much stimulation is beneficial to a developing organism. We know that sensory overload can impair adult functioning, and although we do not yet have evidence on this, we might assume that infants and children are similarly affected. In general, we each seem to have an optimal level of stimulation and activity that psychological functioning. Under excessive pressure, we may strive to reduce some conditions-such as boredom-we may strive to increase the level of stimulation by doing something engaging, such as antisocial personalities, have higher-than average needs for excitement.

**Self Assessment Questions**

1) Explain the risk factors in developmental pathogenesis.

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2) Describe a general outline of biological causes of psychopathology.

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3) Give an account of genetic vulnerabilities for psychopathology.

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4) Explain the role played by neuro-endocrine system in developmental pathogenesis.

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5) Explain physical handicaps and early physical deprivation as the causes of psychopathology.

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## 3.5 PSYCHOSOCIAL CAUSES

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### 3.5.1 Parental Deprivation and Separation

Some children are raised in an institution where, compared with an ordinary home, there is less warmth and physical contact; less intellectual, emotional, and social stimulation and a lack of encouragement and help in positive learning. It is clear that many children deprived of normal parenting in infancy and early childhood show maladaptive personality development and are at risk for psychopathology. Institutionalisation later in childhood in a child who has already had good attachment experience is not so damaging (Rutter, 1987). However, even among those institutionalised at an early age, some show resilience and do well in adulthood. One important protective factor found to influence was whether the child went from the institution into a harmonious family or a discordant one (Rutter, 1990). Other influential protective factors were having some good experiences at school, whether in the form of social relationship, or athletic or academic success, or having a supportive marital partner to a better sense of self-esteem or self-efficacy.

Most infants subjected to parental deprivation are not separated from their parents, but rather suffer from inadequate care at home. In these situations, parents typically neglect or devote little attention to their children and are generally rejecting. Parental rejection of a child may be demonstrated in various ways-by physical neglect, denial of love and affection, lack of interest in the child's activities and achievements, failure to spend time with the child and lack of respect for the child's rights and feeling. In a minority of cases, it also involves cruel and abusive treatment. Parental rejection may be partial or complete, passive or active, or subtly or overtly cruel.

The effects of such deprivation and rejection may be very serious. For example, delineated failure to thrive that is a serious disorder of growth and development frequently requiring admission to the hospital. Such children are thought to be at risk for behaviour problems, delays in development and severe depression. Abused and maltreated infants and toddlers are also quite likely to develop atypical patterns of attachment (Cicchetti & Toth, 1995) characterised by bizarre, disorganised and inconsistent behaviour with the caregiver.

Bowlby (1973) summarized the traumatic effects for children for 2 to 5 years old of being separated from their parents during prolonged periods of hospitalisation. First, there are the short-term or acute effects of the separation, which can include significant despair during the separation and detachment from the parents upon reunion. Bowlby considered this to be a normal response to prolonged separation, even in securely attached infants. Children who undergo such separation may develop an insecure attachment. In addition, there can be long-term effects of early separation from one or both parents. For example, such separation can cause an increased vulnerability to stressors in adulthood making it more likely that the person will become depressed (Bowlby, 1980).

### 3.5.2 Childhood Traumas

The term psychic trauma is used to describe any aversive experience that had harmful psychological effects on an individual. Such traumas make psychological wounds that may never completely heal. As a result, later stress that reactivates these wounds may be particularly difficult for an individual to handle; this often explains why a person has difficulty with a problem that is not especially stressful to another.

### 3.5.3 Parental Psychopathology

In general, it has been found that parents who have various forms of psychopathology, including schizophrenia, depression, anti social personality disorder and alcoholism, tend to have children who are at heightened risk for a wide range of developmental difficulties. Although some of these effects undoubtedly have a genetic component, many researchers believe that genetic effects cannot account for all of the adverse effects that parental psychopathology has on children. For example, the children of seriously depressed parents are at enhanced risk for disorder themselves (Cicchetti & Toth, 1995), at least partly because depression makes for unskilful parenting, notably including inattentiveness to a child's many needs and being ineffective in managing and disciplining the child. In addition children of alcoholics have elevated rates of truancy and substance abuse and greater likelihood of dropping out of school, as well as higher levels of anxiety and depression and lower levels of self-esteem (Chassin, Rogosch, & Barrera, 1991).

### 3.5.4 Parenting Styles

There are also less extreme differences in parenting styles than may occur with various forms of parental psychopathology that nonetheless can have a significant impact on a child's development and increase their risk for psychopathology. In the past, discipline was conceived of as a method for both punishing undesirable behaviour and preventing or deterring such behaviour in the future. Discipline is now thought of more positively as providing needed structure and guidance for promoting a child's healthy growth.

The authoritative style is one in which the parents are both very warm and careful to set clear limits and restrictions regarding certain kinds of behaviour, but also allow considerable freedom within certain limits. This style of parenting is associated with the most positive early social development, with the children tending to be energetic and friendly and showing development of general competencies for dealing with others and with their environments (Baumrind, 1975). When followed into adolescence in a longitudinal study, children of authoritative parents continue to show positive outcomes. Parents with an authoritarian style are high on control but low on warmth and their children tend to be conflicted, irritable, and moody (Baumrind, 1975). When followed into adolescence, these children had more negative outcomes, with the boys doing particularly poorly in social and cognitive skills. If such authoritarian parents also use overly severe discipline in the form of physical punishment as opposed to the withdrawal of approval and privileges, the result tends to be increased aggressive behaviour on the part of the child.

A third parenting style is the permissive-indulgent style, in which parents are high on warmth but low on discipline and control. This style of parenting is associated with impulsive and aggressive behaviour in children (Baumrind, 1975). Overly indulged children are characteristically spoiled, selfish, inconsiderate and demanding. In a classic study Sears (1961) found that much permissiveness and little discipline in a home were correlated positively with antisocial and aggressive behaviour, particularly during middle and later childhood. Unlike rejected and emotionally deprived children, indulged children enter readily into interpersonal relationships but they exploit people for their own purpose in the same way that they have learned to exploit their parents. Finally, parents who are low both on warmth and on control represent the neglectful-uninvolved style. This style of parental uninvolvedness is associated with disruptions in attachment during childhood and with moodiness, low self-esteem and conduct problems later in childhood (Baumrind, 1991). These children of uninvolved parents also have problems with peer relations and with academic performance.



### 3.5.5 Inadequate Communication

Parents sometimes discourage a child from asking questions and in other ways fail to foster the information exchange essential for helping the child develop essential competencies. Inadequate communication may take a number of forms. Some parents are too busy or preoccupied with their own concerns to listen to their children and to try to understand the conflicts and pressures they are facing. As a consequence, these parents often fail to give needed support and assistance, particularly when there is crisis. Other parents have forgotten that the world often looks different to a child or adolescent—rapid social change can lead to a communication gap between generations. In other instances, faulty communication may take more deviant forms in which messages become completely garbled because a listener distorts, disconfirms, or ignores a speaker's intended meaning.

### 3.5.6 Disrupted Family Relationships

The disturbed family structure is an overarching risk factor that increases an individual's vulnerability to particular stressors. We will distinguish between intact families where there is significant marital discord and families that have been disrupted by divorce or separation. In some cases of marital discord or conflict, one or both of the parents is not gaining satisfaction from the relationship. One spouse may express feelings of frustration and disillusionment in hostile ways such as nagging, criticizing, and doing things purposely to annoy the person. Seriously discordant relationships of long standing are likely to be frustrating, harmful and generally damaging in their effects on the adults and their children (Emery & Kitzman, 1995). More severe cases of marital discord may expose children to one or more of the stressors we have already discussed: child abuse or neglect, the effects of living with a parent with a serious mental disorder, authoritarian or neglectful/uninvolved parenting, and spouse abuse. In all these cases, the children are caught up in an unwholesome and irrational psychological environment and as they grow up they may find it difficult to establish and maintain marital and other intimate relationships.

In many cases a family is incomplete as a result of death, divorce, separation or some other circumstance. Effects of Divorce on children Divorce can have traumatic effects on children. Feeling of insecurity and rejection may be aggravated by conflicting loyalties and by the spoiling the children receive while staying with one of the parents. Not surprisingly, some children do develop serious maladaptive responses. Delinquency and a wide range of other psychological problems are much more frequent among those from intact families, although it is likely that a contributing factor here is prior or continuing parental strife. Finally a number of studies have demonstrated that there may well be long-term effects of divorce on adaptive functioning into adulthood, such as lower educational attainment, lower income and lower life-satisfaction. The effects of divorce on children are often more favorable than the effects of remaining in a home torn by marital conflict (Emery & Kitzman 1995).

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## 3.6 SOCIO-CULTURAL CAUSES

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Discussion of the socio-cultural factors that increase our vulnerability to the development of abnormal behaviour will be focused by the role of culture in affecting an individual's behaviour patterns. There are several factors in the social environment that may increase vulnerability: low socio-economic class, disorder-engendering social roles, prejudice and discrimination, economic and employment problems and social change and uncertainty.

### **3.6.1 The Socio-Cultural Environment**

In much the same way that we receive a genetic inheritance, we also receive a socio-cultural inheritance that is the end product of thousands of years of social evolution. Because each group fosters its own cultural patterns by systematically teaching its offspring, all its members tend to be somewhat alike to conform to certain basic personality types. Children reared among head-hunters become head-hunters; children in societies that do not sanction violence learn to settle their differences in nonviolent ways. This more uniform and thorough the education of the younger member of a group, the more alike they will become.

Subgroup within a general socio-cultural environment, such as family, sex, age, class, occupational, ethnic and religious group foster beliefs and norms of their own, largely by means of social roles that their members learn to adopt. Expected role behaviours exist for a student, a teacher, an army officer, a priest, a nurse and so on. Because most people are members of various subgroups, they are subject to various role demands, which also change over time. In fact, an individual's life can be viewed as a succession of roles—child, student, worker, spouse, parents and senior citizen. When social roles are conflicting, unclear or uncomfortable or when an individual is unable to achieve a satisfactory role in a group, healthy personality development may be impaired—just as it is when a child is rejected by juvenile peer group.

### **3.6.2 Pathogenic Societal Influences**

There are many sources of pathogenic social influences, some of which stem from socio-economic factors and other from socio-cultural factors regarding role expectation and the destructive forces of prejudice and discrimination. An inverse correlation exists between socio-economic status (SES) and the prevalence of abnormal behaviour—the lower the socio-economic class, the higher the incidence of abnormal behaviour. The strength of the correlation seems to vary with different types of disorders. For example, antisocial personality disorder is strongly related to social class, occurring at three times the rate in the lowest income category as in the highest income category, whereas depressive disorders occur only about 50 percent more often in the lowest income category as in the highest income category (Kessler et al., 1994).

### **3.6.3 Disorder Engendering Social Roles**

An organised society, even an “advanced” one sometimes asks its members to perform roles in which the prescribed behaviours either are deviant themselves or may produce maladaptive reactions. Soldiers who are called upon by their superiors (and ultimately by their society) to deliberately kill and hurt other human being may subsequently develop serious feeling of guilt. They may also have latent emotional problems resulting from the horrors commonly experienced in combat and hence be vulnerable to disorder.

### **3.6.4 Social Change and Uncertainty**

The rate and pervasiveness of change today are different from anything our ancestors ever experienced. All aspects of our lives are affected—our education, our jobs, our families, our leisure pursuits, our finances and our beliefs and values. Constantly trying to keep up with the numerous adjustments demanded by these changes is a source of constant and considerable stress. Simultaneously, we confront inevitable crises as the earth's consumable natural resources fall off and as our environment become increasingly noxious with pollutants. Certain societies have increasing problems

with drugs and crime. On the contrary, our attempts to cope with exiting problems increasingly seem to create new problems that are as bad or worse. The resulting despair, demoralisation and sense of helplessness are well-established predisposing conditions for abnormal reaction to stressful events (Seligman, 1998).

### Self Assessment Questions

- 1) Explain parental deprivation, separation and childhood traumas as potential causes of psychopathology.

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- 2) Describe the parental psychopathology and parenting styles contributing to the development of psychopathology.

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- 3) Present an account of Inadequate Communication Disrupted Family Relationships in developmental pathogenesis.

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- 4) Evaluate various socio-cultural causes in development of psychopathology.

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## 3.7 LET US SUM UP

The intricacies of human development have always fascinated psychologists. Psychologists have studied developmental processes and used the knowledge gained from these investigations for better understanding of the changes that predictably occur in the later stage of life. This has made possible to link more effectively early precursors to the later expression of maladaptive and deviated behaviours. The risk factor model is a paradigm that facilitates the understanding of developmental deviations. It can be applied at any stage of development. Risk factors have been divided into three large categories: those at the level of the individual, the family and the community. There have been a number of viewpoints regarding causal factors of

psychopathologies. These viewpoints represent any of the many approaches to study human behaviour. None of these viewpoints completely explains abnormal behaviours and therefore, integrative evaluation of these viewpoints is essential. The major viewpoints of developmental pathogenesis are biological, psychodynamic, behavioural, psychosocial and socio-cultural viewpoints. All these viewpoints explain abnormal behaviour with the help of certain sets of causal factors.

Biological viewpoint believes that cognitive, emotional and behavioural symptoms of psychological disorders originate from disorders of nervous system and endocrine system or they are inherited. A number of these causes are operative during pre-natal and post-natal developmental stages. These causes include genetic vulnerabilities, neuro-endocrine system and physical handicaps and deprivation. Psychosocial factors include Parental Deprivation and Separation, Childhood Traumas, Parental Psychopathology, Parenting Styles, Inadequate Communication and Disrupted Family Relationships. Socio-cultural factors that increase our vulnerability to the development of abnormal behaviour are dominated by the role of culture in affecting an individual's behaviour patterns. There are several factors in the social environment that may increase vulnerability: low socioeconomic class, disorder-engendering social roles, prejudice and discrimination, economic, employment problems, social change, and uncertainty.

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### 3.8 UNIT END QUESTIONS

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- 1) Present an account of the risk factors of psychopathology and give an outline of causal factors of psychopathology.
- 2) Explain the biological perspectives of developmental pathogenesis.
- 3) Discuss the psychosocial causes of psychopathology.
- 4) Describe the socio-cultural factors of psychopathology.

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### 3.9 GLOSSARY

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<b>The risk factor model</b>	: The risk factor model is a paradigm that facilitates the understanding of developmental deviations.
<b>Behaviour genetics</b>	: Behaviour genetics is the study of individual differences in behaviour that are attributable in part to differences in genetic makeup.
<b>Genotype</b>	: The total genetic makeup of an individual, consisting of inherited genes, is referred to as the genotype.
<b>Phenotype</b>	: Phenotype is any <i>observable characteristic</i> , trait or behaviour of an individual resulting from the expression of an organism's genes as well as the influence of environmental factors and the interactions between the two.
<b>The HPA axis</b>	: The HPA axis is central to the body's response to stress, and stress figures prominently in many of the psychological disorders, which includes hypothalamus, pituitary and adrenal cortex.

- Authoritative parenting** : The authoritative parenting style is one in which the parents are both very warm and careful to set clear limits and restrictions regarding certain kinds of behaviour, but also allow considerable freedom within certain limits.
- Authoritarian parenting** : Authoritarian parenting refers to a style in which Parents are high on control but low on warmth toward the child.
- Permissive-indulgent parenting** : The permissive-indulgent parenting style is one in which parents are high on warmth but low on discipline and control.

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### 3.10 SUGGESTED READINGS

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