CHAPTER - II
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REVIEW OF LITERATURE

Having enumerated the main aims and objectives of the present research a review of the relevant literature pertaining to 'stress' is presented in this chapter. The review will first focus on the historical perspective of childhood stress, followed by its conceptual and theoretical frameworks and finally will cover the relevant studies conducted in the area of 'stress'.

HISTORICAL PERSPECTIVE OF CHILDHOOD STRESS

Until the middle ages, the concept of childhood as we know it today, did not exist. An infant's hold on life was so tenuous, he was of little concern. As soon as he became able to survive without the constant attention of mother or nurse, he was regarded as a miniature adult and expected to assume responsibilities in the adult world (Aries 1960).

During the nineteenth century there was a growing interest in childhood and recognition of its importance as a period of preparation for adult life. Because of this, strong moral principles entered child-rearing. Enlightened scientists became concerned with how children
developed; for example, Charles Darwin described the day-to-day progress of his own child. In the 1880s Stanley Hall, studied thousands of parent questionnaires relating to the behaviour of their offspring, laying the basis for studies looking at how children 'felt' and 'behaved' in contrast to previous theorizing about how they 'should' feel.

Recognition of the rights of Children

Throughout the twentieth century, in keeping with diminishing infant mortality rates and fertility control, there has been increasing concern for the individual child and his rights. In 1959, the General Assembly of the United Nations adopted a "Declaration of the Rights of the Child" (436 (XIV) 1959) stating that every child should"... be given opportunities and facilities by law and by any other means to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner.....".

Recognition of Children's Psychological Problems

Charles West (a paediatrician), in his lecture on "Disorders of the mind in childhood" (1854), first drew attention to the fact that children had their own
characteristic psychological problems and described features of behavioral and neurotic disorders in childhood (Hunter & McAlpine 1963). He differentiated between mental sub normality and disorders of the mind which occurred much less frequently.

In France, Seguin experimented with methods of educating mentally deficient children and showed that their performance could be improved. In England, Henry Maudsley (1867), described the development of "insanity in early life: The first description of an autistic child was made by Haslam in 1799 (Walk 1964). A boy of 10 years was studied at the Bethlem Hospital in London. He suffered a change in character at 2, became the unrelenting foe of all glass; China and crockery, incapable of forming relationships and inaccessible to any display of kindness.

Management of severely disturbed children was often harsh, since they were held morally responsible for their behaviour. In 1850, Crichton-Browne recommended a humane approach; a wholesome diet, cod liver oil and general cleanliness were to replace the lash and solitary confinement. Controversy about the nature of psychiatric disturbance in childhood was considerable. Kraft-Ebing and Heller postulated an organic basis i.e. physical (brain)
deterioration. Later, when higher education for women raised fears that female intellects might be overtaxed with knowledge, scholastic overstrain gained support as a cause of mental breakdown.

**Twentieth Century position: First decade**

In 1911, Bleuler clarified the concept of schizophrenia; although his observations related chiefly to adult life, he suggested that this disorder could develop in childhood as early as the age of 7.

In the first decade of the twentieth century, people began to think about children and their individual differences.

Compulsory school attendance showed that some pupils were unable to profit by standard teaching. In Paris, Binet, later assisted by Simon devised a series of tests (subsequently known as intelligence tests), which differentiated such children from their peers. This allowed the individual rates of maturation to be created for in the educational system.

Freud's studies of disturbed adults pointed to early childhood experiences as the root of their difficulties. With this came the realization that such experiences should be studied first hand. This dynamic approach i.e.,
explaining the origins of present disturbance in the past life of the individual, stressed the importance of a detailed biography as a means of understanding deviant behavior.

The establishment of juvenile courts, removed children from the formality and primitive atmosphere of the adult judicature and created a need for workers both to help them and to learn why they had transgressed.

Advances in bacteriology at that time had made 'preventive measures' possible as regards physical disease. Could mental ill health be similarly prevented? If such was the case, then attention to childhood experiences became even more important.

Second Decade

The second decade of the twentieth century was marked by serious efforts to understand childhood problems and, through community measures, to help those showing deviant behavior. For instance, if a judge found a child guilty a period of probation could be arranged when the child received guidance rather than punishment. Similarly, foster-home placement became possible if a child's natural home was considered detrimental to his well-being. In the academic stream, special classes were developed to cater
for those unable, to profit by teaching in the general classroom.

**Third Decade**

The third decade of the twentieth century saw activity being directed towards doing things for children in the family and school. Efforts were made to help children with every day problems and their life stresses with a view to preventing serious disturbance later on. Child guidance clinics were established and a multi-disciplinary approach involving a psychiatrist, social worker and psychologist to handle children's problems was evolved. Wickman drew attention to the need to involve teachers in the recognition of emotional and social problems in their pupils. This paved the way for parent-teacher organisations.

**Contemporary Position**

In the 1940's, the concentration was on evolving methods of working with problem children. Attention was paid to understanding the individual child; the meaning he/she attached to life events and why certain symptoms developed. Attempts were made to discover and understand the stresses and conflicts underlying the disturbance and to help resolve them. Because of the difficulties in
communicating with young children verbally, Anna Freud and Melanie Klein pioneered the use of play as a means of communication and emotional release.

The last few years have seen a sudden upsurge in child guidance clinics, counselling services in schools, psychiatric wards for children etc. recognizing that children like adults are also prone to stresses, imbalance and disturbances in life.

STRESS: CONCEPTUAL FRAMEWORK:
EVOLUTION OF THE CONCEPT OF STRESS:

The age of science in medicine dawned with Hippocrates (460-357 B.C.) postulating that mental disorders stem from physical causes. Since then, the science of medicine has largely remained preoccupied with understanding and controlling only organic factors in health and disease. However, such a rigid medicinal approach which failed to accommodate social and ecological factors was bound to face a vacuum at some point of time. Modern scientists, both in the areas of the natural sciences and social sciences have attempted to broaden the frame of reference of health and disease via inter-disciplinary channels. Hence integrated approaches incorporating biological, psychological and sociological aspects have emerged.
The word 'stress' itself is originally of Latin derivation. It was first used in the 15th century as a shortened or apathetic form of 'distress' (Rees, 1976) to denote obnoxious humane experience. In the 17th century 'stress' denoted 'hardship, strain, adversity or affliction' (shorter Oxford English Dictionary).

Later, during the 18th and 19th century, the term meant "force, pressure, strain or strong effort exerted upon a material object or a person - or upon a person's organs or mental powers" - a meaning which implied that a material object or a person, in such a situation resists the distorting effects of these forces and attempts to maintain its original state (Hinkle 1973). Throughout the 19th and 20th centuries, the twin words 'stress' and 'strain' remained in popular usage in a non-scientific sense.

Laboratory connotations of stress

Scientific investigations of stress began as early as in 1812, when Corvisart (1812), observed that all heart diseases stem from the action of the organs and passions of man. Swan (1823), probably for the first time described what is now known as a "stress ulcer" in a five year old child who died of severe burns.
Osler (1910), equated stress and strain with hard work and worry. Provoked by these works, Cannon (1914), started using phrases like "great emotional stress" or "time of stress" in a clear physiological sense when reporting his psychoendocrine experiments on the inter-relation among emotions. His genuine interest in developing a concept of stress as a physiological parameter which became visible in his lecture in 1928 (Cannon, 1928) laid the foundation for a systematic series of experimental researches pertaining to harmful stressful life events and their debilitating impact on the human organs (Cannon, 1929). Cannon, was one of those who thought that the total functioning of the nervous system of an organic body could be understood as maintenance of homeostasis (Cannon, 1932). He used the term "stress" in a quasi-scientific sense, while he described his laboratory experiments on the "flight or fight reaction" of the organism in the maintenance of homeostasis during attack, and conceived the use of an engineering concept of stress and strain in a physiological context, which could be measured (Mason 1975). The engineering concept of stress referred to in Cannon's laboratory experiments, refers to the ratio of the internal force brought into play when a substance is distorted, to the area over which the force acts". (Hinkle 1973).
In the 1930's, Hans Selye, one of the most eminent workers in stress physiology, began his laboratory experiments. In his own words he quotes, "at this time I was working in the Biochemistry Department of McGill University, trying to find a new hormone in extracts of cattle ovaries. I injected the preparations into rats to see if their organs would show unpredictable changes that could not be attributed to any known hormone...." Adrenal enlargements thymicolymphatic involution, and gastrointestinal ulcers were the omnipresent signs of damage to the body when under attack. The three changes thus became the objective indices of stress and the basis for the development of the entire 'stress' concept. The reaction was first described in "Nature"(1936), as "a syndrome produced by diverse noxious agents"; it subsequently became known as the General Adaptation Syndrome or "biological stress syndrome". Selye in 1936, however did not mention the word "stress" even once because of the adverse public opinion, a fact which he remembers in his autobiography - "The stress of Life"(1956). Instead he suggested the name, "alarm reaction" for the initial response, arguing that it probably represents the somatic expression of a generalized "call to arms" of the body's defensive forces.
Later in 1946, he published another paper entitled "the General Adaptation Syndrome" and the "Diseases of Adaptation", in which he undertook the task of elaborating his concept of "diseases of adaptation" as a possible by production to "stress" (Selye, 1946). Selye has been charged by Mason (1975) of constantly having, changed the definition of biological stress until 1974 when it came to be defined as the "non-specific response of the body to any demand made upon it" (Selye 1974).

Since 1936, numerous articles, reviews, and books have dealt with what came to be known as the "stress syndrome" (Selye 1976: Foreward). Through the studies by Grinker, and Spiegel (1945), Dunbar (1947), and Alexander (1950), a psychosomatic conceptualization of stress was evolved. The basic idea advocated was that tensions and strains occurring in one system of the body have pathological consequences for its other systems. Hence, life's conflicts may be communicated through both the person's subjective reactions, and changes in his basic physiology. Weiss & English (1957), suggested the term 'organ language' for such alterations. Wolff & associates (1948, 1950, 1953) forwarded a "protective reaction pattern" paradigm to explain stress. The main idea here was that when an organism faced dangers to its
integrity, a complex reaction would set in to seal off and then get rid of the dangers. These reactions could be made to occur by physical or symbolic dangers indiscriminately. They also concluded that "the conditions which produced life stress and the state of stress within the organism, did not have a linear, relationship as it is in physics, but instead were of an interactional nature".

Basowitz et al (1955), in their studies based on army paratroopers in combat training, explained stress as that class of stimuli which were more likely to produce anxiety and reportable experiences.

Social Psychological Paradigms of stress

Attempts to extend biological ideas of "stress" to include social-psychological aspects, or the possibility of evolving an original theme of social-psychological stress are comparatively new.

In one of the pioneering studies in this direction, Mechanic (1962), in a study entitled, "Students under Stress", advanced a paradigm of stress within the rubric of the social psychology of adaptation. Stress was defined as the discomforting responses of persons in particular situations. In the study as such, "stress" was used to refer to the responses of students preparing
for and taking qualifying exams for the doctoral programme (challenging situation) and also to their reactions to the failure to meet these challenges, effectively. Subsequently Mechanic (1974), emphasised coping skills in the social psychology of adaptation.

To study the epidemiology of mental disorders, Dohrenwend (1961), and Dohrenwend and Dohrenwend (1969), translated Selye's views on stress physiology into social and psychological terms, applicable to the social milieu. Accordingly, they stated that stress consisted of four elements (1) an antecedent stressor or an agent that produces stress; (2) antecedent mediating factors that increase or decrease the impact of the stress, (3) the adaptation syndrome that indicates an intervening state of stress, and (4) consequent adaptive or, when there has been derailment of the mechanism underlying the adaptation syndrome - maladaptive responses.

Cofer and Appley (1964), drew attention to the fact that there was a section of the social sciences where the focal objects of study were frustration, conflict, anxiety etc. The term stress was used either to indicate arousal conditions, state variables, and to identify responses, or to displace and substitute known concepts like anxiety, conflict, ego involvement, frustration, threat and emotionality. They concluded that two broad patterns of
stress emerged: (a) "systematic stress" or the stress concept in physiology and psychobiology as defined by Selye at that time and (b) "psychological stress" defined as the state of an organism in any situation where he perceives that his well-being is endangered, and he must therefore channelise his energy towards its protection.

To distinguish 'psychological stress analysis' from other types, Lazarus (1966), introduced a concept of an intervening variable of 'threat' - a state in which an individual anticipates a confrontation with a harmful condition of some sort. Thus, stress was used to refer to a complex psychobiological process consisting of three major elements. According to him, the process is initiated, by a situation or stimulus that is potentially harmful or dangerous (stressor). If a stressor is interpreted as dangerous or threatening, an anxiety reaction will be elicited. The working sequence of stress involves the following events in temporal order:

**Stressor, perception of threat, anxiety, state.**

The term 'stressor' was used to describe situations or stimuli that were objectively characterised by some degree of physical or psychological danger. The term 'threat' referred to the individual's perception or appraisal of that situation or stimulus as potentially dangerous or harmful. People who saw a stressful situation
as threatening would experience an anxiety reaction. The term 'state anxiety' described an emotional reaction that consisted of subjective feelings of tension, apprehension, nervousness and worry and heightened activity of the autonomic nervous system. The overall process was referred to as stress.

Later, Lazarus and his associates (Lazarus and Cohen 1977; Lazarus 1978; Lazarus et al 1979; and Lazarus and Launier, 1979) revised some of the ideas advocated by them earlier and suggested a more heuristically useful paradigm of stress. In this they held that "stress" implied a particular kind of commerce between a person and the environment. A cognitive phenomenological analysis of this commerce reveals several varieties of relationships that occur between the person and the environment. These are mediated by cognitive appraisal processes. The 'relationships' refer neither to person nor environment as separate sets of variables, but they describe a balance of forces such that environmental demands (external events that impose adaptive requirements) or internal demands (referred to desirable goals, values, commitments programmes or tasks built into or acquired by an individual) 'tax' or 'exceed' the resources of the person. This makes 'stress' a very broad concept, its operative phrase being
'tax or exceed' and involving a transaction in which resources must be mobilized because automatic and sufficient responses are not available with which the demand may be managed. The key implications of this definition involve an understanding of the terms "cognitive appraisal" and "coping processes". Cognitive appraisal can be simply understood as the mental process of placing any event in one of the series of evaluative categories related either to its significance for the person's well-being (primary appraisal) or to the available coping resources and options (secondary appraisal). (Lazarus and Launier 1979). The primary appraisal of a given event may be irrelevant, being, positive or stressful. Irrelevant means that the person does not consider the event under assessment as being related to his well-being. The benign-positive view implies a positive contributory gain, derived from the particular event. On the other hand, an event appraised by a person as 'stressful' has three connotations - 'harm-loss', 'threat' and 'challenge'; all of them having a negative element and thereby being perceived as having a debilitating effect on well-being. 'Harm-loss' refers to the damage already undergone, 'threat', refers to harm or loss which is anticipated, and 'challenge' refers to something which is difficult to attain.
Holmes and Rahe (1967), interpret stress in terms of life changes, Appley and Trumbull (1967), editors of "psychological stress", in a major way attempted to broaden the relevant neuro-physiological and socio-cultural issues. Kahn (1970), encashed on Lazarus's contention of 'threat' being a state in which an individual anticipates a confrontation with a harmful condition; and formulated his own paradigm of 'stress'. According to him,

i. the focal organism (or actor), is embedded in a broader physical - social system and always functions within it.

ii. The sequence of events, numbering four, is as follows: objective demand-subjective demand - response - consequences.

(a) 'Objective demand' takes place in the environment in which the focal organism is embedded;

(b) The reception of that objective demand by the focal organism is labelled as 'subjective demand';

(c) There is then a focal organism's response(s) to the subjective demand - at physiological, psychological, behavioral, and social - interactive levels.
(d) Then there are the "consequences or responses, both for the focal organism and for the larger system of the environment in which it is embedded.

iii. Properties or attributes of the focal organism come into play at several locations: (a) they affect the reception of environmental demand, (b) they influence the response to the subjectively defined situation, and (c) they affect or alter the impact of the consequences of responses.

Presenting a critique of several conceptualizations of stress, Scott & Howard (1970), advanced their own understanding of 'stress'. They have given an analysis of human functioning in problem-solving terms, wherein it was assumed that each organism tends to develop a characteristic level of activity and stimulation at which it most comfortably functions. A problem arises when the human organism is confronted with a situation when it is required to exceed its characteristic level of functioning - or restrict it. The problem can be overcome if adequate energy is channelised and appropriate resources are mobilised. If the problem fails to be overcome, tensions occur. "Stress", is thus regarded as a state which results from the excess tensions produced by a
failure of the organism to master threats from one or more of its environment".

According to McGrath (1970), "the behavioral phenomena to which stress refers, range wide indeed from what are sometimes called 'life stresses' such as loss of a limb, slum existence, prison life; to intense periods of hazards and physical danger, such as combat, parachute jumping, polar expeditions and periods of disaster; to unusual conditions of stimulation leading to bizarre experiences, such as effects of drugs and of sensory deprivation; to situations marked by adverse social psychological conditions, such as interpersonal conflicts, failure and rejection.

Wingate (1972), in the Penguin Medical Encyclopedia defines 'stress' as 'any influence which disturbs the natural equilibrium of the body and includes within its reference - physical injury, exposure, deprivation all kinds of disease and emotional disturbance.

In his bibliographic monumental work, "Stress in Health and Disease" (1976) Selye, has counted at least fifty major attempts towards the delineation and definition of stress.
According to Cox (1978), 'stress' is a threat to the quality of life, and to physical and psychological well-being. Speilberger (1979), in his book entitled, "Understanding stress and anxiety", holds, that 'stress' is an integral part of the natural fabric of life. Any situation in which a person's behaviour is evaluated by others, can be stressful. While stress may have positive, as well as negative effects, the negative aspects generally get the most attention. For example, stress is widely regarded as the cause of such diverse unpleasantness as bad putting on the golf course, poor performance in examinations, insomnia, head-aches, skin rashes, and even serious medical disorders like stomach ulcers, heart attacks and cancer. Thus, in common sense terms, stress refers to both the circumstances that place physical or psychological demands on the individual and to the emotional reactions experienced in these situations. Reactions to stressful situations are based on individual appraisals and interpretations, nevertheless some situations are inherently more stressful than others. When people interpret a stressful situation as dangerous or threatening, they experience feelings of tension, apprehension and worry. They also undergo a range of physiological and behavioral changes resulting from the activation or arousal of the autonomic nervous system (the concept of arousal of the ANS during stress was first advocated by
Osler as early as in 1910). The intensity of the reaction is proportional to the magnitude of the perceived danger or threat.

Speilberger (1979), further felt that the terms stress and anxiety are often used interchangeably; there is general agreement that stress causes anxiety or strain.

Medeiros et al (1983), seem to imply that although stress is caused by both pleasant and unpleasant events, it has been empirically observed that positive events lead to far less stress than negative events such as failing in an exam, or being spanked by a parent on the part of a child. Accordingly, there are four stages involved in the development and manifestation of stress. To begin with, there is an event in the individual's environment, which exerts force on him. This is followed by the individual's understanding and interpretation of this event. There is then a reaction or response to the causal events, which manifests itself in a physiological, psychological or behavioral form. Finally, there are the consequences of the response both for the individual afflicted with 'stress' and the environment in which he lives.

Tyrer (1983), explains stress as a reaction of the mind and body to change. According to him, the key issue
is whether one is able to adapt to the change when it takes place; if one did then stress is hardly noticed; if one did not, the stress is felt.

Chaturvedi (1983), remarked that the theoretical treatments of 'stress' are diverse and numerous causing confusion and incoherence. In fact he strongly condones Mason’s (1975) notion that "perhaps the single most remarkable historical fact concerning the term 'stress' is its persistent widespread usage in Biology and Medicine, inspite of almost chaotic disagreement over its definition. This fact alone would seem to suggest both that the term has a curiously strong popular or intuitive appeal and that it fills widely recognized needs of describing biological phenomena not adequately covered by other generic terms of present. It is sometimes said that durability provides a good index of validity or usefulness of scientific concepts. If this is true, then the durability of stress concepts in the face of so much confusion over terminology suggests that a continuing search for what solid and valid in these concepts may eventually prove rewarding.

Chaturvedi (1983), after reviewing a number of researches in the area of 'stress', concludes that negative life events are essentially responsible for causing stress.
In the present study, since the focus is on primary school children, 'stress' is defined in terms of negative life events which lead children into difficult behaviour patterns. These difficult behaviour patterns or problem behaviors can be viewed as the manifestations of stress, while the negative life events themselves are the causal factors. The present study also recognises that stress may result from social, emotional, or personal pressures in the environment.

**SOME SIGNIFICANT THEORIES OF STRESS**

Stress is referred to by most personality theorists. However, the explanations advanced by them are diverse and differentially focused. It would thus, be in order to consider all the views of the personality theorists, individually.

**THE PSYCHOANALYTICAL FRAMEWORK:**

This framework is both highly systematized and complex and presents rather a negativistic and deterministic view of human behavior. It suggests that people are dominated by instinctual biological drives, as well as by unconscious desires and motives. Although there is a constructive libidinal side in each individual, there are also the darker forces of aggression leading toward
destruction and death. And, although the ego tends toward rationality, the counter forces of intrapsychic conflict, defense mechanisms and the unconscious all tend toward a high degree of irrationality and maladaptive behavior. In addition, behavior is further determined through past learning, especially from early experiences. The specific contributions of each theorist to the development of the concept of 'stress' will now be taken up.

Freud's views on anxiety:

According to Freud, the dynamics of personality are to a large extent governed by the necessity for gratifying one's needs by means of transactions with objects in the external world. The surrounding environment provides the hungry organism with food, the thirsty one with water. In addition to its role as the source of supplies, the external world plays another part in shaping the destiny of personality. The environment contains regions of danger and insecurity; it can threaten as well as satisfy. The environment has the power to produce pain and increase tension, as well as to bring pleasure and reduce tension. It disturbs as well as comforts.

The individual's customary reaction to external threats of pain and destruction with which it is not prepared to cope is to become afraid. The threatened
person is ordinarily a fearful person. Overwhelmed by excessive stimulation that the ego is unable to bring under control, the ego becomes flooded with anxiety.

Freud recognized three types of anxiety - reality anxiety, neurotic anxiety, and moral anxiety or feelings of guilt. The basic type is reality anxiety or fear of real dangers in the external world; from it are derived the other two types. Neurotic anxiety is the fear that the instincts will get out of control and cause the person to do something for which he or she will be punished. Neurotic anxiety is not so much a fear of the instincts themselves, as it is a fear of the punishment likely to ensue from instinctual gratification. Neurotic anxiety has a bias in reality, because the world as represented by the parents and other authorities does punish the child for impulsive actions. Moral anxiety is fear of the conscience. People with well developed super egos tend to feel guilty when they do something or even think of doing something that is contrary to the moral code by which they have been raised. They are said to feel conscience - stricken. Moral anxiety also has a realistic basis; the person has been punished in the past for violating the moral code and may be punished again.
The function of anxiety is to warn the person of impending danger; it is a signal to the ego that unless appropriate measures are taken, the danger may increase until the ego is overthrown. Anxiety is a state of tensions; it is a drive like hunger or sex, but instead of arising from internal tissue conditions, it is produced originally by external causes. When anxiety is aroused it motivates the person to do something. He or she may flee from the threatening region, inhibit the dangerous impulse, or obey the voice of conscience.

Anxiety that cannot be dealt with by effective measures is said to be traumatic. It reduces the person to a state of infantile helplessness. In fact the prototype of all later anxiety is the "birth trauma". The neonate is bombarded with stimuli from the world for which it is not prepared and to which it cannot adapt. The baby needs a sheltered environment until its ego has had a chance to develop to the point where it can master strong stimuli from the environment. When the ego cannot cope with anxiety by rational methods, it has to fall back upon unrealistic ones. These are the so called defense mechanisms of the ego such as repression, projection, reaction formation, fixation, regression etc.
Erik Erikson's theory of Psychosocial Development

In Erikson's theory of psychosocial development, reference is made to eight stages of development. The first four stages occur during infancy and childhood, the fifth stage during adolescence and the last three stages during the adult years. Erikson seems to suggest that, there is an ego crisis in each of these eight stages, which if successfully resolved, enables a child to emerge with considerable ego strength. Negative experiences on the other hand, lead to weakening of the ego. For each stage, Erikson proposes dichotmous outcomes—one positive, the other negative. Although, the concept of stress is not specifically discussed, it can be assumed that the negative outcome of each stage of development implies stress. The eight stages are:

1. Basic trust vs Mistrust
2. Autonomy vs shame and doubt
3. Initiative vs guilt
4. Industry vs: inferiority
5. Identity vs identity confusion
6. Intimacy vs isolation
7. Generativity vs stagnation
8. Integrity vs despair.
Jung’s Analytic Theory

The prime focus in Jung’s theory which is relevant to the phenomenon of stress, is, that a great deal of maladjustment and unhappiness is due to a one-sided development of personality that ignores facets of human nature. These neglected facets create personality disturbances and irrational conduct.

He posits that, all the important decisions in life require that due consideration be given to unconscious as well as conscious factors if they are to be successful. According to him, if the wisdom of the unconscious is ignored by the ego, the unconscious may disrupt the conscious rational processes by seizing hold of them and twisting them into distorted forms. Symptoms, phobias, delusions and other irrationalities stem from neglected unconscious processes.

Jung, talks about two types of unconscious - the personal unconscious or the region adjoining the ego wherein, suppressed, repressed, forgotten or ignored experiences are stored, and the collective unconscious which is the storehouse of latent memory traces inherited from one’s ancestral past. According to Jung (1943), "the unconscious holds possibilities which are locked away
from the unconscious mind, for it has at its disposal all subliminal contents, all those things which have been forgotten or overlooked as well as the wisdom and experience of uncounted centuries, which are laid down in its archetypal organs".

Among those who provided psychoanalytic theory with the twentieth century look of social psychology are Alfred Adler, Karen Horney, Erich Fromm and H.S. Sullivan. They felt that one's personality is shaped more by social circumstances or the society in which he/she lives than by biological factors.

**Adler's Theory**

In Adler's theory, the concept most relevant to stress is that of birth order. In line with his interest in the social determinants of personality, Adler observed that the personalities of the oldest, middle and youngest child in a family were likely to be quite different. He attributed these differences to the distinctive experiences that each child has as a member of a social group. The first born or oldest child is given a good deal of attention until the second child is born; then it is suddenly dethroned from its favoured position and must share its parent's affections with the new baby. This experience
may condition the oldest child in various ways, such as hating people, protecting himself/herself against sudden reversals of fortune and feeling insecure. Oldest children are also apt to take an interest in the past when they were the centre of attention. Neurotics, criminals, drunkards, and perverts, Adler observes are often first-born children. If the parents handle the situation wisely by preparing the older child for the appearance of a rival, the oldest child is more likely to develop into a responsible, protective person.

The second or middle child is characterised by being ambitious. It is constantly trying to surpass its older sibling. It also tends to be rebellious and envious, but by and large is better adjusted than either the older or younger siblings.

The youngest child is the spoiled child. Next to the oldest child, it is more likely to become a problem child and a neurotic maladjusted adult. Thus, in consonance with Adler's theory it may be assumed that first born children will be the most prone to 'stress'.

Another significant aspect of Adler's work which may explain the occurrence of stress, is that of childhood experiences. Adler was particularly interested in the kinds of early influences that predispose the child to a
faulty style of life. He discovered three important factors: (1) children with inferiorities; (2) spoiled children; (3) neglected children. In his view, children with physical or mental infirmities bear a heavy burden and are likely to feel inadequate in meeting the tasks of life. They consider themselves to be, and often are 'failures'. However, if they have understanding, encouraging parents, they may compensate for their inferiorities and transform their weakness into strength. Spoiled or pampered children, in his opinion, never develop social feelings - they became despots who expect society to conform to their self-centered wishes. In regard to neglected children, he felt that bad treatment in childhood, makes them enemies of society and nurtures the need for revenge in them. These three conditions - organic infirmity, pampering and rejection - produce erroneous conceptions of the world and result in a pathological style of life.

**Erich Fromm's Theory**

The main feature of Fromm's theory which is of relevance to the concept of stress, is that a person feels lonely and isolated because he/she and has become separated from nature and from other people. This condition
of isolation is not found in any other species of animal, it is the distinctive human situation. The child, for example, gains freedom from the primary ties with its parents with the result that it feels isolated and helpless. Freedom, thus becomes a negative condition from which they try to escape.

Fromm, further advocates that it is absolutely necessary for a child's personality to be shaped to fit the needs of society. The task of education and of parents is to make the child want to act, as it has to act, if a given economic, political and social system is to be maintained. In his opinion, by making demands upon humans that are contrary to their nature, society warps and frustrates them. It alienates them from their "human situation", and denies them the fulfilment of the basic conditions of existence. This to some extent may be taken as the explanation rendered by Fromm for the causation of stress.

Horney's Theory

Horney's primary concept is that of basic anxiety, which is defined as .... "the feeling a child has a being isolated and helpless in a potentially hostile world. A wide range of adverse factors in the environment can produce
this insecurity in a child; direct or indirect domination, indifference, erratic behavior, lack of respect for the child's individual needs, lack of real guidance, disparaging attitudes, too much admiration or the absence of it, lack of reliable warmth, having to take sides in parental disagreements, too much or too little responsibility, over protection; isolation from other children, injustice, discrimination, unkempt promises, hostile atmosphere and so on....". In general, anything that disturbs the security of the child in relation to his parents produces basic anxiety.

The insecure, anxious child develops various strategies to cope with his feelings of isolation and helplessness. He may become hostile and seek to avenge himself against those who have rejected or mistreated him, or he may become overly submissive in order to win back the love that he feels he has lost. He may develop an unrealistic idealized picture of himself in order to compensate for his feelings of inferiority. The child may try to bribe others into loving him, or may use threat: to force people to like him. He may wallow in self pity to gain people's sympathy.

If the child cannot get love, he may seek to obtain power over others. In that way, he compensates for his
sense of helplessness, finds an outlet for hostility, and is able to exploit people. Or the child becomes highly competitive in which the winning is far more important than the achievement. He may turn his aggression inwards and belittle himself. Thus Horney's concept of basic anxiety largely corresponds to stress.

According to Horney, basic anxiety and conflicts are avoidable and resolvable if the child is raised in a home where there is security, trust, love, respect, tolerance, and warmth. That is, Horney, unlike Freud and Jung does not feel that conflict is built into the nature of humans and is therefore inevitable. Conflict arises out of social conditions. "The person who is likely to become neurotic is one who has experienced the culturally determined difficulties in an accentuated form, mostly through the medium of childhood experience". Horney's concept of basic anxiety may be taken to be similar to the concept of 'stress' in the present study.

Sullivan's Theory

Sullivan, forwarded a theory based on interpersonal theory. According to his contention, anxiety is a product of interpersonal relations, being transmitted originally from the mother to the infant and later in life by threats to one's security. To avoid or minimize actual or potential
anxiety, people adopt various types of protective measures and supervisory controls over their behaviors. One learns, for example, that one can avoid punishment by conforming to parents' wishes. These security measures form the self-system that sanctions certain forms of behavior and forbids other forms. Sullivan believed that the self-system is a product of the irrational aspects of society. By this, he means that the young child is made to feel anxious for reasons that would not exist in a more rational society; it is forced to adopt unnatural and unrealistic ways of dealing with its anxiety. Although Sullivan recognizes that the development of a self-system is absolutely necessary for avoiding anxiety in modern society, he also acknowledges that the self-system is "the principal stumbling block to favourable changes in personality".

Further, in the context of anxiety, Sullivan advanced the concept of 'personifications'. A personification according to him, is an image that an individual has of him or herself or another person. It is a complex of feelings, attitudes, and conceptions, that grows out of experiences with need-satisfaction and anxiety. The good personifications result from interpersonal experiences which are rewarding in character, and the bad personifications from anxiety arousing situations.
Sullivan then goes on to say that, anxiety is the experience of tension that results from real or imaginary threats to one's security. In large accounts, it reduces the efficiency of the individuals in satisfying their needs, disturbs interpersonal relations, and produces confusion in thinking. Anxiety varies in intensity depending upon the seriousness of the threat and the effectiveness of the security operations that the persons have at their command. Severe anxiety is like a blow on the head; it conveys no information to the person and instead produces utter confusion and even amnesia. Less severe forms of anxiety can be informative. Anxiety is transmitted to the infant by the "mothering one" who is herself expressing anxiety in her looks, tone of voice, and general demeanour. As a consequence of this mother transmitted anxiety, other objects in the near surroundings become frightened with anxiety by the operation of association of continuous experiences. The infant learns to veer away from activities and objects that increase anxiety. When the baby cannot escape anxiety, it tends to fall asleep. This dynamism of somnolent detachment, as Sullivan calls it, is the counterpart of apathy, which is the dynamism aroused by unsatisfied needs. In fact, these two dynamisms cannot
be objectively differentiated. Sullivan says that, one of the great tasks of psychology is to discover the basic vulnerabilities to anxiety in interpersonal relations rather than to try to deal with the symptoms resulting from anxiety.

ORGANISMIC FRAMEWORK

Organismic theory emphasizes the unity, integration consistency, and coherence of the normal personality. Organisation is the natural state of the organism; disorganisation is pathological and is usually brought about by the impact of an oppressive, or threatening environment, or by intraorganic anomalies.

Goldstein was the main exponent of the organismic theory. According to him, a normal, healthy organism is one "in which the tendency towards self-actualization is acting from within, and overcomes the disturbance arising from the clash with the world, not out of anxiety but the joy of conquest. This statement suggests that coming to terms with the environment consists primarily of mastering it. If this cannot be done, then the person has to accept the difficulties and adjust as best as possible to the realities of the outer world. If the discrepancy between the organism's goals and the realities of the environment is too great, the organism either breaks down or has to give up some of its aims and try to
actualize itself on a lower level of existence. Sometimes, the threat from the environment may be so great, that the individual's behavior becomes frozen by anxiety and he/she is unable to make any progress toward the goal. Thus, Goldstein seems to imply that stressful situations emerge from the environment. For instance, according to Goldstein, if a child is exposed to situations with which it can cope, it will develop normally through maturation and training. As new problems arise, the child will form new patterns to deal with them. Reactions no longer useful for the goal of self-actualization will drop out. However, if the conditions of the environment are too arduous for the child's capacities, it will develop reactions inconsistent with the principle of self-actualization. In this case, the process tends to become isolated from the person's pattern of life. Isolation of a process is the primary condition for the development of pathological states. For example, humans, are neither aggressive, nor submissive by nature, but in order to fulfill their nature they sometimes have to be aggressive and at other times submissive, depending upon circumstances. However, should a strong, fixated habit of either aggression or submission be formed, it will tend to have a disruptive influence upon personality by
asserting itself at inappropriate times and in ways that are contrary to the interests of the whole person.

**Maslow's Theory**:

Maslow also propounds a theory which seems to suggest that stress is exerted through environmental pressures. According to him, as personality unfolds, through maturation in a benign environment and by active efforts on the part of the person to realize their nature, the creative powers of humans manifest themselves ever more clearly. When humans are miserable or neurotic, it is because the environment has made them so through ignorance and social pathology, or because they have distorted their thinking. According to him, psychopathology in general, results from the denial or frustration, or the twisting of man's essential nature. Man's essential nature implies his needs, capacities and tendencies. Thus Maslow seems to suggest that stress occurs as a consequence of denial of a person's needs, capacities and tendencies.

**THE HUMANISTIC FRAMEWORK**

Humanistic psychology opposes what it regards as the bleak pessimism and despair inherent in the psychoanalytic view of humans on the one hand, and the robot
conception of humans portrayed in behaviorism on the other hand. Humanistic Psychology is more hopeful and optimistic about humans. It believes that the person-any person contains within him or herself the potentialities for healthy and creative growth. The failure to realize these potentialities is due to the constricting and distorting influences of parental training, education, and other social pressures. Carl Rogers was the most eminent Humanist.

Roger's Person-Centred Theory:

In his theory, Rogers advances two major concepts- 'organism' and 'self'. The organism is the locus of all experience. Experience includes everything potentially available to awareness that is going on within the organism, at any given moment. 'Self' refers to the self concept of an individual. When there is congruence between self and organism, the person is said to be adjusted, mature and fully functioning. Such a person accepts the entire range of organismic experience without threat or anxiety. It is incongruence, between self and organism which makes individuals feel threatened and anxious. They behave defensively and their thinking becomes constricted and rigid. This, thus can be assumed to be the explanation
for the occurrence of 'stress'. To explain the discrepancy between self and the organism, Rogers puts forth the contention, that a person is subject to evaluations by other individuals all through his life. If these evaluations were exclusively positive in sign, then no distancing or incongruity between organism and self would occur. But because evaluations of the child's behavior by its parents and others are sometimes positive and sometimes negative, the child learns to differentiate between actions and feelings that are worthy (approved) and those that are unworthy (disapproved). Unworthy experience tends to become excluded from the self-concept even though they are organismically valid. This results in a self-concept out of line with organismic experience. The child tries to be what others want to be instead of trying to be what it really is. Gradually, then, throughout childhood the self-concept becomes more and more distorted due to evaluations by others. Consequently, an organismic experience that is at variance with this distorted self-concept is felt as a threat and evokes anxiety. In order to protect the integrity of the self-concept, these threatening experiences are denied symbolization or are given a distorted symbolization.
THE EXISTENTIAL FRAMEWORK

Existential psychology rejects the concept on causality, the dualism of mind and body, and the separation of the person from his or her environment. It does not conceive of behavior resulting from external stimulation and internal bodily conditions. An individual is neither the pawn of the environment, nor the creature of instincts, needs, and drives. Instead, he/she has the freedom to choose and he/she alone is responsible for his/her own existence. Humans can transcend both their physical bodies if they choose. Whatever they do it is their choice. People themselves determine what they will be and do. In answering the questions as to why then, if humans are free to choose do they suffer from anxiety, alienation, boredom, compulsions, phobias, delusions, and a host of other disabling disorders, the Existentialists say, that there are two answers to this question. The first and most obvious one is that freedom to choose does not ensure that choices will be wise ones. Humans can realize their possibilities or can turn their backs on them. In existential language, one can choose to live authentically or one can choose to live inauthentically. Secondly, the existentialists felt, that humans can transcend the wounds of childhood and later insults to their existence, but they can never transcend their
'guilt'. Guilt is an 'existential', that is, a fundamental characteristic of being in the world (Dasein). Boss explains this great dilemma that faces every person in the following words:

"...man is primarily guilty. His primary guilt starts at birth. For it is then he begins to be in debt to his Dasein (being-in-the-world), in so far as carrying out all the possibilities for living of which he is capable are concerned. Throughout his life, man remains guilty in this sense, i.e. indebted to all the requests that his future keeps in store for him until he breathes his last.... every act, every decision, every choice, involves the rejection of all the other possibilities which also belong to a human being at a given moment.... Man's existential guilt consists in his failing to carry out the mandate to fulfil all his possibilities. Thus, 'stress' in Existential terms may be said to result from (a) inability to make wise choices, and (b) inability of humans to transcend their guilt."

THE BEHAVIORIST FRAMEWORK

While Psychoanalysis largely dominated psychological thought about abnormal behavior in the early twentieth century, a new school - 'Behaviorism' - was emerging to challenge its supremacy. Behavioristic psychologists felt,
that the study of subjective experience - via the techniques of dream analysis and free association - did not provide acceptable scientific data, since such observations were not open to verification by other investigators. In their view, only the study of directly observable behavior and the stimulus and reinforcing conditions that 'control' it could serve as a basis for formulating scientific principles of human behavior. Although this model was initially developed through research in the laboratory rather than through clinical practice with disturbed individuals: its implications for explaining and treating maladaptive behavior soon became evident. The origins of the behavioristic model can be traced to the work of the Russian physiologist, Pavlov (1849-1936) but credit for its elaboration belongs largely to three distinguished American psychologists: J.B. Watson (1878-1958), E.L. Thorndike (1874-1949) and B.F. Skinner. The contributions of each of them to understanding the concept of 'stress' or its treatment will now be considered.

Pavlov's Theory

While performing a series of studies on the salivary response in dogs, Pavlov discovered the phenomenon of the conditioned reflex. In 1914, while pursuing
the study of conditioned reflexes in dogs, one of Pavlov's students reported an unusual and dramatic incident. He had conditioned a dog to distinguish between a circle and an ellipse, as demonstrated by the fact that the dog had learned to salivate to the ellipse but not to the circle. The ellipse was then gradually altered in shape so that it became more and more like the circle, until the dog could no longer distinguish accurately between the two. During three weeks of subsequent experimentation, the dog's ability to discriminate between the two similar figures not only failed to improve, but became considerably worse and finally disappeared altogether.

At the same time, the behavior of the dog underwent an abrupt change. The previously quiet and cooperative animal squealed and squirmed in its stand and tore off the experimental apparatus with its teeth. In addition, when taken into the experimental room the dog now barked violently, instead of going quietly as it had before. On testing, even the broader differentiations between the circle and the ellipse that the dog had previously mastered, could not be elicited. Pavlov considered this change in the dog's behavior to be equivalent to an "experimental neurosis". 'Stress' thereby, here, may be explained as
the condition which arose in the dog as a result of its inability to make a discrimination, leading to peculiar behavior on its part. Thus, this peculiar behavior which Pavlov terms as experimental neurosis appears to be a manifestation of stress.

This unusual incident in the laboratory led Pavlov to believe that reaction patterns would be reflected in humans too in reactions to life stresses. His research with dogs yielded three general reaction patterns — excitatory, inhibitory and central. Extrapolating these to the human context Pavlov distinguished two personality types — (a) an artistic type — intensive, vivid and highly responsive to external stimulation and (b) a thinking type — quiet, contemplative and more responsive to verbal concepts and ideas. According to him the artistic type were more prone to reactions of hysteria, mania and depression in response to acute life stresses, whereas, the thinking type were more prone to obsessions, compulsions and schizophrenic reactions.

**Watson's behaviorism**

Watson dramatically demonstrated how an irrational fear, or phobia, could be readily learned through conditioning. The experiment was the famous one conducted on a little boy. The procedure was simple, the experimenter
stood behind the boy and struck a steel bar with a hammer when Albert (the eleven months old boy who was fond of animals) reached for a white rat. The loud noise elicited a fear response on the boy's part and made him cry. After several repetitions of this experience, Albert became greatly disturbed at the sight of the animal even without the loud noise, and his fear generalized to include other furry animals and objects as well. This demonstration of the development and generalization of an irrational fear suggested that other types of abnormal behavior might also be the result of learning. Thus Watson seems to suggest that 'stress' may be a learned reaction.

Thorndike's Theory

In his formulation of the "law of effect" Thorndike made the observation that responses that have rewarding consequences are strengthened or learned, whereas responses that have negative or aversive consequences are weakened or extinguished. Thus, Thorndike's law of effect seems to suggest that certain manifestation of stress a child may exhibit, which bring about rewarding consequences, in that, the child gets more attention from his parents, teachers and peers will reinforce this behavior in him.
Skinner's Theory

Skinner in his theory concluded, that the most important, understandable, and manipulable determinants of behavior lie outside the organism in environmental events or stimuli. He further concluded that these stimuli can be manipulated to control the learning and behavior of the organism. Skinner's emphasis on the use of stimuli to control behavior from outside the organism led to the development of 'operant conditioning'. In 'Operant conditioning' the individual makes a response in an attempt to achieve a desired goal. The individual 'operates' on or modifies the environment, hence the term 'operant'. The goal in question may be to obtain something that is aversive. As we grow up, operant learning becomes an important mechanism for discriminating between the desirable and the undesirable - between what will prove rewarding and what will prove unrewarding or aversive. Unfortunately, however, there is no guarantee that what is learned will be accurate or effective. It is possible for a person to learn to value things that will hurt others, he may fail to learn needed competencies for coping, or he may learn coping patterns such as helplessness, bullying or other irresponsible behavior that is maladaptive rather than adaptive. The suggestion here for, 'stress' is that certain 'stress reactions' may be learned.
The concepts of generalization and discrimination also have implications for 'stress' theory. According to Skinner, inappropriate generalizations and faulty discriminations may lead to psychological disorganization and inefficient coping behavior. In other words, it may be assumed that faulty discriminations and unappropriate generalizations can result in stress reactions.

Skinner put forth the notion of 'modelling' wherein a child imitates a model. Children spontaneously imitate parental behavior; hence parents are viewed as important models. Unfortunately, a child may imitate maladaptive as well as adaptive parental behavior or the behavior of undesirable models seen on television or in movies. The implication here for 'stress' theory is that children may learn stress reactions through the process of modelling. Skinner's theory has many concepts which are of great in psychotherapy and likewise can greatly help in curing 'stress reactions' in children. These include, rewards and punishment, shaping, systematic desensitization etc. Thus Skinner's theory has implications for both the causation and treatment of stress.

**S-R Theory of Dollard and Miller**

Dollard and Miller were heavily influenced by psychoanalytic thought, and they accepted as valid many
of the insights provided by the Freudians. They attempted to combine two traditions by bringing to the rich literature of psychoanalytic theory, the power and precision of the concepts of learning theory.

They assume that unconscious conflicts, learned for the most part during infancy and childhood, serve as the basis for most severe emotional problems in later life. They agree with psychoanalytic theorists in considering experiences of the first half dozen years of life crucial determinants of adult behavior. According to them, it is important to realize that 'neurotic conflict' is not only learned by the child, but is learned primarily as a result of conditions created by the parents. Thus they appear to suggest that 'stress' is also learned as a result of conditions created by the parents. This unfortunate capacity of the parents for impairing the child's development stems in part from the fact that cultural prescriptions concerning the child are contradictory or discontinuous, and in part from the fact that the child during infancy is not well equipped to cope with complex learning demands even if they are consistent. Thus, society demands that the child learns to be aggressive in some situations and submissive in other very similar situations; a difficult discrimination
at best. Worst of all, this demand may be made at a time when the child does not have at its command all the symbolic functions contributed by language so that such discriminations may simply over reach its learning, capacity with resultant frustration and emotional upheaval. Thus 'stress' can also be said to result from difficulty in making 'discriminations'. Miller and Dollard advocate that during the early stages of life, the parents primary role is to maintain drive stimuli at a low level. The parents should be permissive, gratifying, and make few learning demands until the child's language skills have developed.

Further, granted the fact that every culture makes many demands upon the individual who is to live effectively within it, still there are certain of these demands that are particularly likely to produce conflicts and emotional disturbance. They identify four situations in which cultural prescription, as interpreted by the parents, is particularly likely to have disastrous consequences for normal development. These are the feeding situation in infancy, toilet or cleanliness training, early sex training, and training for control of urges and aggression. In other words, these would be the stress
evoking situations. All too often, the child develops intense anxiety or guilt about the expression of its basic needs in these areas, and a conflict has thus been established.

Dollard and Miller hold, that just as the experimental animal in the laboratory learns any instrumental response of which it is capable that allows it to escape an anxiety-provoking stimulus, so the human in real-life conflicts attempts to escape or avoid feelings of anxiety and guilt by all manners of instrumental responses. One highly available and thus frequently used mode of reactions is 'not thinking'. The individual represses memories and thoughts that are capable of making him/her anxious or guilty and refuses to try to understand their conflicts and the circumstances that brought them about. However, as long as conflicts remain in the unconscious, they are not only likely to continue to exist, but to lead to the development of still further reactions or symptoms. These symptoms may be the fairly direct consequences of the emotional turmoil caused by the conflict, but frequently they are behaviors allowing individuals temporary escape from their fears and anxieties. The implication for 'stress' theory here is that 'stress' is also caused by some conflict in
the unconscious, and is acted out through some symptomatic manifestation in order to escape from it.

**Lewin's field Theory**

In Lewin's field theory, which explains mathematically the structure and dynamics of personality, what is of relevance to "stress theory", is his concept of conflict. He has specified four types of conflicts - (a) approach – approach conflict, (b) avoidance – avoidance conflict, (c) approach – avoidance conflict and (d) double approach – avoidance conflict. According to Lewin, these conflicts are what result in placing a person in a stressful situation – much stress is experienced in making a choice. Thus, in Lewin's theory 'stress' appears to become synonymous with conflict.

**Theory of Wolpe & Eysenck**

The views of Wolpe and Eysenck are in sharp contrast to psychoanalysis. They have rejected this approach, and put forward the view that a simple set of learning principles established in the laboratory is sufficient to account for the acquisition of many personality phenomena. Both Eysenck and Wolpe agree that although individuals may differ in the degree to which they are constitutionally predisposed to develop neurotic
anxiety, all neurotic behavior is learned. Abnormal behavior is learned according to the same laws as normal behavior. Thus, the symptoms the patient complains of are simply items of behavior which the patient has learned; there is no underlying 'cause' or complex which produces and sustains the 'symptoms' and makes them reappear once they have been eliminated by purely symptomatic treatment. Thus, the implication for stress theory is that stress is also a learned reaction. Wolpe and Eysenck seem to agree that individuals suffering from neurotic anxieties often develop responses that allow at least temporary escape or avoidance of these unpleasant emotions. This seems to be an adequate explanation for the occurrence of behavioral symptomatic manifestations in response to stress. However, they feel that some neurotic behavior, for example, consists of responses that happen to have been going on at the time of the original trauma and have therefore become associated or "hooked up" with the conditioned stimulus along with the conditioned anxiety reaction. Still other responses may later be added to the syndrome of neurotic responses because they are, by coincidence, going on at the time the anxiety reduction occurs and thus reinforced. This explanation appears to hold good for stress reactions too.
PHYSIOLOGICAL FRAMEWORK

Hans Selye's Theory

Hans Selye spent over forty years studying the syndrome of stress. According to his theory, the body's reaction under stress, which he calls the "general adaptation syndrome" occurs in three major phases:
(i) the alarm reaction, (ii) the stage of resistance, and (iii) the stage of exhaustion.

The alarm reaction, sometimes called the emergency reaction, consists of the physiological changes that are the organism's first response to a stress provoking situation or agent (stressor). A stressor is anything injurious to the organism, whether physical or psychological. The alarm consists of various complicated bodily and biochemical changes that usually have the same general characteristics regardless of the exact nature of the stressor. If exposure to the stress-producing situation continues, the alarm reaction is followed by the "stage of resistance". This is the second phase of the general adaptation syndrome. Here, the organism seems to develop a resistance to the particular stressor that provoked the alarm reaction. The symptoms that occurred during the first stage of stress disappear, even though the disturbing
stimulation continues, the physiological processes that had been disturbed during the alarm reaction appear to resume normal functioning. Resistance to the stressor seems to be accomplished in large part through increased level of secretions of the anterior pituitary and the adrenal cortex (ACTH & Cortin, respectively).

If exposure to the injurious stressor continues too long, a point is reached where the organism can no longer maintain its resistance. It then enters the final phase of changes related to stress the "stage of exhaustion". The anterior pituitary and adrenal cortex are unable to continue secreting their hormones at the increased rate. This means the organism cannot continue to adapt to the chronic stress. Many of the symptoms of the alarm reaction begin to reappear. If the stressor continues to act upon the organism after this time, death may occur. It is rare, however, for stress not to be relieved before the stage of total exhaustion is reached.

STRESS RELATED RESEARCH

While the previous section dealt with the theories of stress, the present section focuses on actual studies conducted in the area of stress which are of relevance to the present study.
Reactions to stress/Indices of stress

The reactions to stress in children referred to as the coping processes or defense mechanisms have been classified in various ways i.e.:

i) Physiological responses

ii) Muscular skeletal

iii) Neurological Reactions

iv) Environmental transactions.

Cox (1978), Hennessy and Levine (1979), and Rose (1980), attempted to explain the physiological responses to stressors. According to them, initially, there is an increase in cortisol in catecholamine secretion, in growth hormone and in prolactin, but a fall in testosterone. Since there is also a rapid adaptation to the repetition of stress stimuli, particularly with respect to the cortisol response, the nature and timing of the endocrine response alters with further experience of the stressor, so that the main reaction takes place during the anticipation phase rather than the period following the event. On the other hand, heart rate and epinephrine secretion tend to increase afresh with each new encounter even in individuals well used to that particular stressor - indicating that there are a variety of different elements in the physiological response which function in disparate ways.
In an attempt to classify the different types of coping mechanisms, Haan (1963 & 1977), made a differentiation between coping mechanisms (which are seen as healthy, reality oriented and conscious), defense mechanisms (which are regarded as rigid, distorting and involving unconscious elements), and fragmentary processes (which are repetitive, unresponsive to requirements and determined by affect needs).

Environment Transactions

Lazarus (Lazarus and Launier 1978; Roskies and Lazarus, 1980), has proposed a classification based firstly on whether the function is to alter the troubled person-environment transaction, or to regulate emotion (i.e. problem-solving or palliation); secondly on the coping mode used. He listed four main classes of reactions which have typically been used to index stress; reports of disturbed affects, motor behavioral reactions, changes in the adequacy of cognitive functioning and physiological changes, both biochemical and autonomic.

Neurological Reactions

The physiological response is dominated by the major psychoendocrine systems, the sympathetic adreno-medullary and pituitary adrenocortical systems. Both
are influenced by hypothalamic and higher-brain activity. A long list of endorgan responses generated by autonomic nervous system activity have been listed. The list includes changes in the electric conductivity of the skin (GSR), heart rate, diastolic and systolic blood pressure, blood volume, finger temperature, respiration rate and amplitude, salivary output, and change in pupillary size.

**Muscular-Skeletal Responses**

The physiological responses also include contraction of the spleen, the release of glucose stored as glucogen in the liver, the redirection of blood supply from the skin and the viscera to the muscles and the brain, dilation of the bronchi, dilation of the pupils and enhancement of the blood coagulation process and of the supply of blood lymphocytes.

**Behavioral Responses**

Lapouse and Monk as early as in 1958, made a list of certain behavioral characteristics which they felt typified the tension phenomena. This list included - fears and worries, bed wetting, Nightmares, food intake, temper loss, overactivity, restlessness, stuttering, unusual movements, jerks, twitches and tics, nail biting,
grinding of teeth, thumb and finger sucking, biting, sucking and chewing of other objects, nose picking, and sores.

Cox (1978), gave a very comprehensive account of the many behavioral, physiological and health effects which have been variously suggested to be linked to the experience of stress. The subjective effects include anxiety, aggression apathy, boredom, depression, fatigue, frustration, guilt and shame, irritability and bad temper, moodiness, low self-esteem, threat and tension, nervousness and loneliness.

The behavioral effects include accident proneness, drug taking, emotional outbursts, excessive eating or loss of appetite, excessive drinking and smoking, excitability, impulsive behavior, impaired speech, nervous laughter, restlessness and trembling. The cognitive effects include inability to make decisions and concentrate, frequent forgetfulness, hypersensitivity to criticism, and mental blocks.

In the domain of physiological effects are, increased blood and urine catecholamines and corticosteroids, increased blood glucose levels, increased heart rate and blood pressure, dryness of mouth, seating, dilation of
pupils, "a lump in the throat", numbness and tingling in parts of the limbs.

The realm of health effects focuses on asthma, amenorrhoea, chest and back pains, diarrhoea, faintness and dizziness, dyspepsia, frequent urination, headaches and migraine, neuroses, nightmares, insomnia, psychoses, psychosomatic disorders, diabetes mellitus, skin rash, ulcers and weakness.

Peterson (1961), in his study of the behavior problems of middle childhood gave a composite list of children's behavior problems. Although he did not specifically imply that these problems were resultant of stress, it may be argued that problem behavior occurs in children, generally when they are undergoing some life stress, or have to cope with environmental pressures, and thus they are of relevance in the context of the present study. The list presented by Peterson includes two main areas of problem behavior - (i) conduct problems and (ii) personality problems.

The conduct problems include disobedience, disruptiveness, boisterousness, fighting, attention seeking, restlessness, negativism, impertinence, destructiveness, irritability, temper tantrums, hyperactivity,
profanity, distractability, irresponsibility, inattentiveness, laziness in school, shortness of attention span, dislike for school, nervousness, thumb sucking and skin allergy.

The personality problems include feelings of inferiority, lack of self confidence, social withdrawal, proneness to become flustered, self-consciousness, shyness, anxiety, lethargy, inability to have fun, depression, reticence, hypersensitivity, drowsiness, aloofness, preoccupation, lack of interest in the environment, clumsiness, day dreaming, tension, suggestibility, crying, preference for younger play mates, specific fears, stuttering, headaches, nausea, truancy from school, stomachaches, preference for older playmates, masturbation, hay fever and asthma.

Ray (1989), gave a list of behavior problems characteristic of children, which included - tics, asthma, eczema, stammering, fears and phobias, nightmares, jealousy, aggression, temper tantrums, passivity, timidity, school phobia, compulsive behavior and psychosomatic disorders. According to him, these problems generally resulted from stressful situations, and they were actually the coping patterns or reactions to these stressful situations/events.
Zimbardo (1979), talked of four ways in which people reacted to stressful environmental situations. According to him these include:

1. emotional responses such as sadness, anger, irritation, frustration, rage and even elation etc;

2. Behavioral reactions which show up in changes in performance, poor concentration, forgetting, lessened productivity, or inability to get along with other people.

3. Changes in physiological functioning, which manifest in bodily reactions such as headaches, back aches, high blood pressure etc.

4. Cognitive functioning which includes the typical ways of thinking in a person about his ownself. Included in this, are the self-esteem, self-confidence, security etc.

Rutter (1981), in his article on 'stress, coping and development' poses a very significant question as to whether different types of stressful events, lead to different types of outcomes. He goes on to cite some research findings - Jacobs et al (1974), found that the recent life events associated with depression tended to be
particularly those which involved disturbed interpersonal relationships, whereas, those associated with schizophrenia were less specific in type. Brown and Harris (1978), suggested that loss events tended to be particularly associated with depression, whereas non loss events involving uncertainty were more likely to lead to anxiety.

According to Rutter, the findings with children are rather sparse but they too, suggest differential outcomes. He cites a study by Felner et al (1975), who, while observing primary school children compared the behavioral patterns associated with parental death and with parental divorce or separation. They found that the bereaved children tended to manifest heightened shyness, timidity and withdrawal; whereas those from divorced or separated families were more likely to show aggressive antisocial problems. Thus, the manifestation of stress varied with the nature and magnitude of the causative factor.

Laishley (1983), in her book which deals with the problems which children exhibit, mentions some common behavioral problems which result either due to frustration or irregularity in the life situation of children. These include - physical and verbal aggression, destructiveness, temper tantrums, defiance, lack of cooperation, passiveness, withdrawal, regression, and fears and phobias.
Medeiros et al (1983), have identified certain bodily reactions which if observed and reported by parents and teachers, can be taken as indicators of stress in children. These include - general irritability, pounding of the heart, accident proneness, anxiety, getting startled easily, stuttering, grinding the teeth, insomnia, bed-wetting, indigestion, and nightmares.

Connell (1985), in discussing children's psychological reactions to stress, holds that, because of the child's sensitivity to environmental events, transitory responses to stress are common which include a wide spectrum of disturbances involving emotional distress and/or behavior which would not be expected in a normal child; but, there is no significant distortion of personality development and the disturbance settles as stress eases, or the child matures sufficiently to cope with it. The range of reactions which they cite include neurosis, defense mechanisms, anxiety, depression, phobic states, conversion and dissociative reactions, hypochondriasis obsessive/compulsive disorders, maladaptive attitudes and behavior patterns, such as, solitude, negativism, apathy, obstinacy, lack of empathy, insensitivity, stubbornness, argumentativeness, temper tantrums and violation of rules and regulations. Certain conducts disorders such as
vandalism, delinquency, truancy, and stealing are also discussed.

From the various research findings cited above, it is clear that stress in children is manifested in various ways. Among these, behavioral problems seem to be relatively more reliable indices of stress and have been described by many researchers as is seen in the foregoing section. However, while some of the cited studies describe the behavior problems of children very exhaustively, they had not specifically related these problems to stressful situations. Other studies which deal with the specific reactions to stress, appear to be more clinical in nature. Thus it is important to arrive at an index of behavioral reactions indicative of stress in normal children. This is particularly important so as to enable teachers to identify children afflicted with stress and then render them the appropriate help.

The present study thus, is in this direction. It has as its main aim, to identify the behavioral factors indicative of stress.

Stress and Academic Performance

Research studies, relating stress and academic performance are numerous and have emerged with very
contradictory findings in regard to the nature of the relationship between the two variables. It must be mentioned at this juncture, that the number of studies which consider "stress" per se are very few mainly because in the Indian context, there were lack of adequate standardized instruments/tests to measure 'stress' until quite recently in the educational setting. In fact, almost all the stress-performance studies were experimental in nature. However, a number of studies have focused on "anxiety" and "deprivation" in relation to academic performance. These studies will be cited in the present section as it is felt that both anxiety and deprivation are closely related to stress - anxiety being an index of stress, while deprivation is a cause of stress.

Stress and Performance

As early as in 1942, Courts, while studying the relationship between induced muscular tension and performance discovered that an inverted U type relationship existed between the two variables.

Malmo (1957), found a clear trend in favour of an inverted U shaped relationship between drive and performance.

More recently, Anderson (1976), studied coping behavior as an intervening mechanism in the inverted
U-type relationship. He found, that perceived stress and organisation performance displayed a curvilinear relationship which was nearly like an inverted U relationship.

Thakur (1978), in his study on the effect of psychological stress on bilateral transfer found that psychological stress is determinantal for bilateral transfer. In other words, he found a negative relationship between stress and performance. Srivastava and Naidu (1982) in their study an impulse control, stress and performance found the existence of a curvilinear inverted U relationship between stress and performance. Thus, they advocated that, moderate stress is facilitative and conducive for efficient organismic functioning.

Anxiety and Achievement

In the educational setting, there have been a number of studies relating anxiety with academic achievement.

Singh (1957), in his doctoral study which focused on the relationship between anxiety and achievement, found that the group of students branded as highly anxious had significantly better achievement than the low anxious group.
Another important study of this decade was that of Kapur (1958), which dealt with the effects of emotional disturbance of school going children on their performance. He concluded that scholastic success was contingent on emotional stability.

Cowen et al (1965), in studying the relation of anxiety in school children to achievement in school, found a negative relationship between anxiety and achievement. Sinha (1966), in his study on intelligence, anxiety and adjustment of academic achievers and non-achievers also found a somewhat curvilinear relationship between achievement and anxiety. The high achievers in his group were found to have a moderate level of anxiety, while the low achievers were found to have high anxiety. Subsequently in his book entitled "Academic-achievers and non-achievers", Sinha (1970), crystallized his findings in a sentence - high achievers have a lower anxiety level than low achievers, but low achievers also display some amount of anxiety.

Roy and Sinha (1966), in their study on anxiety level and the effect of practice on mental work found that the level of anxiety was not found to be related to performance in the sphere of mental work.
Singh (1966), in his study on manifest anxiety and University examination, found a negative relationship between anxiety level and the drive theory of manifest anxiety.

Sabberwal (1967), in his study on "emotional tension and its effect on student performance in school examinations, found that students with high tension performed poorly, whereas absence of tension, resulted in higher marks.

Ahluwalia and Narang (1967), held that high achievers were less emotionally unstable than low achievers.

Nijhawan (1968), in his research on the determinants of anxiety in school children, found a consistent trend for the high anxious children to perform better than the low anxious children.

Gupta (1970), in his study on high and low achievers found that emotional mal-adjustment contributed to lowering the academic level.

Shanker and Brar (1973), demonstrated a negative relationship between anxiety and academic achievement.

Studies in the last decade which focus on anxiety and performance have also, like the earlier studies,
emerged with diverse conclusions about the nature of relationship between these two variables.

Tiwari et al (1980), found that when anxiety was high, achievement was low.

Pandey (1980), found that emotionally stable adolescents had better academic achievement than emotionally unstable ones.

Contractor (1981), in his study on educational attainment as a function of certain variables, found a significant correlation between examination marks and anxiety. In fact he demonstrated that anxiety contributed significantly to educational achievement.

Srivastava et al (1980), in their study on examination anxiety and academic achievement, found a negative relationship between the two variables.

Siddiqui and Akhtar (1982), in their study on anxiety in relation to academic achievement of high school students demonstrated an inverse relationship between anxiety and achievement, i.e. highly anxious students showed poor performance and less anxious students showed high academic performance.

Sinha and Nigam (1984), in their study on neuroticism, anxiety and academic achievement, found that high
achievers are likely to be more anxious than low achievers.

Lahey (1984), in his study on students' achievement, found that anxious children performed poorly in school.

Bruneau (1984), in her study on pre-schoolers demonstrated that pre-schoolers who showed indications of emotional disturbance were more likely to retain negative views of themselves as learners.

Of considerable importance to the causation of stress is the concept of deprivation. Deprivation has been found to be a significant causal factor of stress (Brenner, 1984; Medeiros et al 1983). There are a number of studies which relate deprivation to academic performance. These then, can be said to be of relevance to "stress" research. Deprivation in its social, cultural, economic, and emotional parameter has been studied very intensively. Numerous studies on academic achievement as dependent and environmental variables (Hunt 1964; Dave 1965; Karp and Siegel 1965; Hill and Giamatio 1963; Wiseman 1964; Coleman 1966; Singh 1976) father's occupation (Jamuar 1963; Gupta 1967), socio-economic status of parents (Chauncy 1966; Rao 1965; Bennur 1966; Kakkar 1970; Mathur and Hundel 1972; Bennur and Abraham 1973;
Ahluwalia and Deo 1975; Bayti 1972), deprivation (Panda 1976; Miller 1968; Dass 1969; Chopra 1969; Sen 1976) and such other psychological, personal and socio-cultural factors as independent variables appear in the literature on "deprivation and academic achievement", which reveal that deprivation has one-tailed probability i.e. deprivation causes retardation in academic performance. Though remote from the essence of the present study, academic performance as related to deprivation seems relevant as it is a form of stress.

In this context Bhargava and Marwah (1982), in their investigation on academic performance as a function of prolonged deprivation found a negative correlation between the two variables.

Sharma (1983), demonstrated in his study on academic performance and deprivation that, academic performance is inversely related to emotional and economic components of prolonged deprivation rather than to socio-cultural ones.

Some studies on the effects of deprivation on important facets of academic performance, such as intelligence (Rath et al 1979; Tripathi and Misra 1976; Singh 1976), cognitive competence (Sinha and Shukla 1974; Sinha 1976; 1977; Mishra 1976, and Misra and Tripathi,
1980), Piagetian tasks and problem solving skills (Rao 1976; Bevli 1977; Saxena 1978) and memory (Misra and Shukla 1979; 1980) have shown the inhibitory effects of the former on the latter.

Thus, to sum up, it may be said that studies which relate stress with academic performance are almost non-existent in the Indian context. The focus in the past has been on stress and performance in the experimental setting, anxiety and academic performance and deprivation and academic performance. The present study is different from the above mentioned studies in that it attempts to study the relationship between stress and academic performance in the normal school setting.

**Stress and Type of School**

There is considerable paucity of research in the area of stress varying as a function of type of school. However, a number of studies deal with different types of school effects on pupil outcome and behavior. The range of school effects which have been studied include: resources and physical plant of the school, size of school, class organizational structure, composition of student body, degree of academic emphasis, classroom management, discipline, pupil conditions, pupil participation and
responsibility and staff organization. These have been reviewed in terms of their beneficial effects on pupil progress by Rutter (1983), in his book on "School effects on pupil progress: research findings and policy implications". Both in this book and another one entitled, "Fifteen thousand hours", Rutter et al (1979), concluded that the characteristics of a school powerfully affect the behavior and achievement of its pupils. In fact, in their opinion, children of the same social class and similar test scores at age 10, fare very differently in different secondary schools. Differences between schools in children's achievements and behaviors can be shown to be related to differences in school and classroom characteristics stressing the importance of school effects on pupil outcome. Brookover, Beady, Flood, Schweitzer and Wisenbaker (1979), held that schools can make a difference. In the opinion of Rutter, Maughan, Mortimore, Ouston and Smith (1979), schools can do much to foster good behavior and attainments, and that even in a disadvantaged area, schools can be a force for the good. According to Klitgaard and Hall (1975), there are unusually effective schools. Madaus, Kellaghan, Rakow and King (1979), held that what goes on in schools is highly relevant to students. Halsey, Heath and Ridge (1980), felt that the type of school attended is enormously consequential, especially
for less able children. Rutter et al (1979), in a study on school influences, demonstrated that schools have been found to vary markedly in rates of disruptive behavior and absenteeism and it has been shown that these variations are systematically related to the characteristics of the schools themselves.

Speilberger (1979), in his book entitled, "Understanding stress and anxiety", has emphasized the importance of the school. According to him, going to school normally marks the first continuous separation of a child from its parents. The school is also the first socialising agent outside the family that is encountered by most children. While good teachers provide assistance and emotional support for the child, they are also sources of stress when they need to correct mistakes or punish misbehavior. Since the child must learn many difficult tasks on which there is a risk of failure, the manner in which a teacher corrects and disciplines the child is especially important. Getting along, and feeling secure and comfortable with teachers and other pupils is an essential foundation for future learning.

According to Mehrabian (1976), the environment in which a group of children operates has much to do with the presence or absence of disruptive behavior. Patterson (1975), held that children develop both positive and
negative behaviors in large part because of the environment in which they exist.

It was Old's (1977) contention that, many discipline problems could be traced directly to the physical set up of the classroom. She believed that a poorly arranged classroom was actually a prime cause of many behavior problems in children. She also held that children developed both positive and negative skills through interaction with the environment.

Marion (1981), in her book on the "Guidance of young children", discusses the image of both healthy and unhealthy classrooms. She contends that unhealthy classrooms are both physically and socially disorganized and poor, leading children into many difficult behavior patterns.

Medeiros et al (1983), have also discussed certain school factors being responsible for the causation of stress in children. These include school phobia, subject anxiety, stress in sports etc.

According to Bisht (1984), students feel various types of stresses. Two such significant stresses are 'academic stress' and 'institutional stress'. Students are influenced as well as constrained by their schools.
The school culture continuously demonstrates to the child, how it expects him to behave and what values the adults believe to be important. Students try to adjust to the institutional demands and academic necessities. In this process they are likely to feel stress pertaining to their respective institutions and academics.

Thus, from the above mentioned studies, it is evident that school features affect pupil outcome. There is further evidence to suggest that the type of school attended has a significant bearing on a child's development. The type of school may cause a particular type of stress. For instance, a highly autocratic school, a highly achievement oriented school, a school which gives a lot of home work would all contribute to different types and degrees of stress in students. However, there appears to be no study which studies children's stress in the context of type of school and thus the present study has undertaken this task.

Stress in terms of sex factor

Once again, in the realm of children's stress, there are very few studies which focus on boy-girl differences in the manifestation of stress. Most of the studies are in the domain of anxiety or otherwise study sex differences in the context of manifestation of problem behavior. These studies, however, would be
useful in indicating whether the sex factor would be significant in influencing children's stress, since in the present study, 'stress' is being studied in terms of behavior problems and anxiety has been taken as a significant manifestation of stress.

Studies dealing with the expression of aggression have shown that boys are more directly, overtly and physically aggressive than girls. Boys have also been found to show more imitative physical aggression (Bandura, Ross and Ross, 1961; Hicks 1965).

Nijhawan and Brar (1966), in their study on young children demonstrated that girls were significantly more sympathetic than boys and boys were significantly more competitive than girls.

Varma (1961), in her study on 'behavior problem of young children, found that boys showed significantly more problems than girls specially in aggression, delinquency and non-compliance.

Kabia et al (1975), in a clinical analysis of speech defects in children, found the male-female ratio to be 3 : 1. Defective articulation was the commonest disorder.

Bhan (1984), in her study on children's aggression, found boys to be significantly more aggressive than girls.
Malhotra and Chaturvedi (1984), in their study on "patterns of childhood psychiatric disorders in India", found a predominance of boys afflicted with problems in the age range of 6-14 years.

In the realm of anxiety, Julka (1963), in his study found no significant difference between boys and girls. However, Dale (1969), found that females were more school anxious than male students.

Siddiqi and Akhtar (1983), also demonstrated that girls were more anxious than boys. In a recent study by Bisht (1984), male students were found to have less institutional stress than female students. In terms of academic stress, there were no significant differences between the sexes.

Studying sex differences in response to stress events, Rutter (1970, 1981 b), concluded that boys appear to be more vulnerable to stress. The evidence is least striking with respect to the effects of hospital admission, but with this event too, there has been some tendency for males to be more likely to be affected adversely (Rutter 1981 a). With the birth of a sibling, Dunn et al (1981), found that boys were more likely than girls to show an increase in withdrawal. With divorce, both Hetherington (1980) and Wallerstein and Kelly (1980),
found that disturbance tended to be more severe and more prolonged in boys. Similarly, there has been a tendency for boys to show more behavioral change in response to day care (Rutter 1981c) and more aggressive behavior in relation to parental discord and disharmony (Rutter 1981b).

The above mentioned studies throw light on sex differences in stress reactions among children. The present study, differs from these in that the attempt is to study boy-girl differences in regard to the manifestation of stress and not in regard to specific life events. The earlier studies relating to various behavior problems reviewed at the beginning of this section, while establishing sex differences in regard to certain behavior problems were not specific studies in stress research and hence the present study differs from them in its prime focus, being on stress.

Having reviewed the conceptual framework of "stress", the significant theories of stress the relationship between stress and academic performance and some specific research studies in 'stress' which are of relevance to the variables in the present study, it would now be in order to shift the focus to "academic performance", which is the other major variable in the present study.
There is very vast and extensive research in the domain of academic performance. However, what is of importance in the context of the present study is the relationship between academic performance and type of school and academic performance and sex factor.

**Academic performance and type of school**

As early as in 1963, Jamuar, demonstrated a positive relationship between academic performance and father's occupation. This finding is found relevant in the present context, because just as schools represent the class structure (Nanda, 1969), it is assumed that fathers' occupations will also vary with the type of school. Thus if fathers' occupation affects academic performance, it is assumed that academic performance will differ between types of schools.

Kakar (1970), in his study on popularity, intelligence, economic status and academic achievement, demonstrated a high positive correlation between the economic status of parent and academic achievements. Once again as mentioned earlier, since the economic status of parents is found to vary with the type of school it can be assumed that type of school will affect academic performance.
Some recent studies by Sengupta and Veeraraghavan (1985), Samal (1986), and Veeraraghavan and Bhattacharya (1986), have shown that academic performance varies as a function of type of school. There is evidence of this in Rutter's (1979) book, "Fifteen thousand days", too. While all the above mentioned studies have considered four to five different types of schools, the present study has taken eight different types of schools into consideration, and this is primarily what makes it different from the earlier studies.

Academic performance and sex factor

A number of studies (Thakur 1972; Abraham 1974; Bayti J 1975; Breedawat 1976; Sengupta and Veeraraghavan 1985; Veeraraghavan and Bhattacharya 1986) have undertaken an analysis of sex differences in regard to academic performance. The results of these studies are varied and contradictory. While some demonstrate the superiority of girls over boys in general, others show exactly the opposite results. Still other studies show no sex differences in academic performance.

However, the most recent evidence of sex differences in academic performance was the results of the Xth and XII C.B.S.E. and Delhi Higher secondary examinations (Times
of India, May-June, 1987) wherein, girls in general performed better than boys.

Thus, since the presence of sex differences in academic performance appear to vary from study to study and in differing contexts, it was thought worthwhile to analyse them in the present study too.

Organisational climate and its relationship with academic performance and children's' stress

Pillai (1966), in an investigation into the organisational and administrative factors which affect the achievement of pupils found that most schools lacked essential facilities and equipments. He held that, the environmental conditions of pupils were responsible for low academic achievement.

Pillai (1973), found that pupil performance is better in open and autonomous climates than in other climates. His analysis also revealed a positive correlation between organisational climate and pupils' performance. Sterling (1977), in a study of the relationship between teacher perception of elementary school organisational climate and student achievement, found that there was no significant relationship between the two variables.

Sinha (1980), in his study on the effects of the school system on the competence of secondary school
students, found that public schools had a more complete organisation structure than other schools, which he felt could be a factor contributing to better performance among students.

Martin (1983), in a study on organisational climate and student achievement in Maths, found that differential organisational climates led to differential achievement in Maths.

Earlier, Haggard (1982), noted that school climate and academic achievement had only a weak to moderate relationship, particularly in regard to language and arithmetic.

Whitaker (1982), also did not find a relationship between open climate and better student achievement.

Rier Franklin (1983), in a similar context, demonstrated that organisational climate was not the most influential factor in determining students' performance in reading and Maths.

Gupta and Kapoor (1985), in their study on school innovativeness in relation to its institutional climate, have emphasized the importance of the school climate in influencing learning outcomes.

Thus, studies relating organisational climate with academic performance have shown very contradictory results.
While some studies have demonstrated a positive correlation between the two variables, other have shown a negligible or non existent relationship. In this background, it was thought appropriate to study the relationship between the two variables, in the present study, too.

In regard to organisational climate and children's stress, there appears to be no specific study. The significance of school effects on children's stress, have already been discussed in the section on type of school and stress. Drawing from the studies cited there it may be expected that there will be a positive correlation between organisational climate and students' stress. The present study thus seeks to explore this.

CONCLUDING NOTE ON THIS CHAPTER

Thus, from the review of related studies presented in the foregoing sections, it is evident that while stress reactions of children have been studied, these were mainly clinical studies. In regard to children's behavior problems, the focus was not on stress but on the problems themselves. Similarly, while the relationship between stress and performance has been studied in the experimental setting, it has not been investigated in the normal academic
setting. Researches relating anxiety and academic performance, and deprivation and academic performance have been vast and numerous, but there have been very few studies relating stress and academic performance.

While a number of studies have focused on various school effects resulting in stress, the influence of type of school as a variable influencing 'stress' has not been studied. Similarly, while sex differences in regard to anxiety, specific behavior problems and stress reactions to specific life events have been studied, sex differences in terms of 'stress' in general have not been emphasized.

There is no concrete research evidence which throws light on the relationship between stress and the organisational climate that exists in schools. Researches on school climate have been many (for e.g. Sharma 1966, 1971; Pillai 1978; Samal 1986). However, these have not been related to stress in any way.

Furthermore, in regard to academic performance in terms of type of school, sex factor and organisational climate, the results have been rather contradictory.

Thus, the present research has made an attempt to study first of all the intensity and magnitude of stress as it exists among primary school children. In the present study, stress in children is focused on the problem
behavior (indicative of stress), which they manifest. It is in this context that the study differs from other studies.

Since stress causes considerable anxiety and as pointed out by many theories, the organism gears up to ward off that anxiety, most of the organism's energy is expended on this task and very little is left to deal with academic demands; such a stress leads to lowering of academic performance in children, until the time the stress is warded off and the energy is available to the organism to expend on academic demands. Thus, the uniqueness of this study lies in that, it attempts to study the relationship between stress and academic performance.

As pointed out elsewhere in this chapter, stress is environmentally produced and school environment plays as significant a role as the home. While studies have shown how home environment produces stress, hardly, any study has focussed on how or whether school environment produces stress. Since each school differs from others in its management, teachers, activities, availability of materials, playthings etc., one may also hypothesisthat the different types of schools may contribute to differential stress, because of their typical school environment. Type of school as a variable contributing to stress has not been
studied so far and to this extent the present study has taken up a new area of research. The present study also attempts to investigate the relationships between academic performance and (a) type of school, (b) sex factor and (c) organisational climate.