CHAPTER I

INTRODUCTION
1. INTRODUCTION

1.1 GENERAL:

Our behaviour is not just a matter of internal motivation. Life would be simple if our needs were immediately and automatically satisfied. But we know that there are many obstacles of both environmental and internal origin, which interfere with need gratification. Some of these obstacles are fairly easy to surmount while others severely tax our adjustive capacities. In any case when our drive toward some goal is blocked, we experience stress.

Every society has its own set of behaviour standards. In complex societies such as ours the number of standards is ever increasing and more and more of them tend to shift in emphasis and may even become contradictory. This may result in additional stress and strain upon the people.

Stress is a term that has been linked to varied concepts and operations. (cf. Appley and Trumbull, 1967; Dodge and Martin, 1970; Hinkle, 1973; Janis, 1958; Lazarus, 1966; Lecine and Scotch, 1970; Moss, 1973; McGrath, 1970). For some researchers it is a stimulus, some times more, some times less complex; for others it is an inferred inner state; and for still others it is an observable response to a stimulus or situation. Thus the use of the term is somewhat hazardous because of the lack of consensus that pervails in stress research.
The concept of stress has come into increasing prominence in the biological and social sciences since World War II. The term "stress", has been used to depict the phenomena as diverse as metabolic imbalance following surgery, failure to succeed in an experimental task, personal bereavement, psychopathological reactions connected with military combat or life in a concentration camp, and the societal disruptions produced by naturally occurring disasters. The term stress is thus loose, in that it is applied to a host of phenomena related only by their own analogy with the engineering concept, and at the same time, exceedingly broad, in that it covers phenomena at the Physiological (Selye, 1936), Sociological (Smelser, 1962), and Psychological (Lazarus, 1966) levels of analysis that may be described in a common theoretical language of causes, intervening processes and effects. The term stress has, at the very least, the value of being a generic one, unifying a wide variety of phenomena, concepts and empirical research.

Stress may occur on biological, psychological and/or sociological level. Thus pneumonia viruses produce stress on a biological level in that the basic adjustive demand involves primarily the biological defenses of the body. Similarly guilt is a source of psychological stress in that mainly ego defenses are involved. Stress may also occur at group as well as individual levels. Economic depressions and wars are examples of situations which place adjustive demands both on individual and on the group as a unit.

The use of the term stress in psychological research had an accelerated growth curve following Selye's invited address to the American Psychological Association in 1955. Initially as Harris et. al. (1956) have suggested, this interest developed "because of the importance of physiological variables as independent measurable indicators of a stressed organism". However, the use of the concept has spread through many facets of psychology (Cf. Appley, 1957a, b; Cofer and Appley, 1964, pp. 441-465) and has been applied even where no physiological or endocrine factors were subject to study.2

There are three reasons for the apparent popularity of stress as a psychological concept. The first might be called a bandwagon effect. Since the term gained some attention, and apparently some status as a research topic, it has been used as a substitute for what might otherwise have been called anxiety, conflict, emotional distress, extreme environmental conditions, ego-threat, frustration, threat to security, tension, arousal or by some other earlier respectable terms. Secondly, because of its wide use in the biological field, the use of the term suggested both apparent and real possibility of correlating psychological events with physiological substrata, a prestigious and hopeful pre-occupation of psychologists these days. Thirdly, of course, is the genuine interest in stress phenomena, stimulated in part by concern with the effects of the unusual environments in which men

are being placed these days in military and space operations, and in part by the exciting possibilities of real links being established, between areas of clinical, psychosomatic and various types of traditional experimental research.  

Most of the stress researches focus on the reactions of individuals as well as on the stress situation itself. The foundation for experimental research on the effects of stress was laid by Cannon (1929) in his detailed observations of bodily changes related to pain, hunger and the major emotions. Although his thinking focussed on the survival functions of internal psychological adjustments produced by stressful conditions and strong emotions, Cannon's experimental work provided a necessary link in the argument that stressful life events can prove harmful. That is, he showed that stimuli associated with emotional arousal, cause changes in basic physiological processes. A major contribution to this task was made by Adolf Meyer in the 1930s through his advocacy of the life-chart as a tool in medical diagnosis. His invention of the life-chart, is a device for demonstrating his schema of the relationship of biological, sociological and psychological phenomena to the processes of health and disease in man. The importance of many of the life events used in this research was emphasized by Meyer as "changes of habitat, of school entrance graduations or changes or failures in the various jobs; the date of possibly important

births and deaths in the family and other fundamentally important environmental influences (Liel, 1948)."

The term stress was classified as frustrations, conflicts and pressures. While considering each type of stress separately, it will be apparent that they are all closely interrelated.

'Frustration' occurs when one's strivings are thwarted, either by obstacles that block progress toward a described goal or by absence of an appropriate goal. A wide range of obstacles, both environmental and internal, can lead to frustration. The frustrations we face depend heavily on such factors as age and other personal characteristics, our specific life situations, and the society in which we live.

In many instances stress results from the necessity of choosing between two needs or goals. The key element in conflict is often the frustration that arises when we have to choose one alternative and give up the other. Conflicts with which every one has to cope are conveniently classified as approach-avoidance, double-approach and double-avoidance types.

Stress may stem not only from frustrations and conflicts, but also from a pressure to achieve particular goal or to behave in particular ways. Such a pressure may originate from external or internal
sources. Pressure forces a person to speed up, intensify or change the direction of goal oriented behaviour. Therefore, it is apparent that a given stress-situation may involve elements of all three types of stress-frustration, conflict and pressure.

Volumes have been written about stress and its correlates. Although the emphasis in the literature has begun to be focused on the adaptation of children under stress (e.g. Clegg and Megson, 1968; Fraser, 1973; Lash and Siyal, 1976; Lewis, 1954; Stewart, 1976; Tonge, James and Hillam, 1975; Varma, 1973; Wedge and Prosser, 1973; Wolff, 1973; and Young, 1974).

In our society adolescence is thought of as a period of identity crisis. Adolescence is often described as a time of greater storm and stress than other periods of life. Evidence that adolescence is a time of acute stress for some (such as delinquents) does not mean that, it is not a stressful time for all. There is some evidence also to state that many adolescents are more troubled than they were previously or will be somewhat later.

1.2 MEANING OF STRESS:

The concept of stress is very old. Even the pre-historic man might have experienced stress. Usually stress is experienced due to prolonged exposure to cold or heat, loss of blood, agonizing
fear, or any kind of disease. When faced with these stressful situations that require systemic adaptation, the organism can respond through three essentially distinct mechanisms—nervous, immunologic and phagocytic and hormonal. Adaptability is probably the most distinctive characteristic of life.

Definitions of stress have been offered by a number of investigators. These definitions have perhaps reflected the divergence of interests and theoretical orientations of persons interested in stress as much as they have contributed to any clarification of the concept. Each and every investigator described the term stress in his own way.

The concept of stress was first introduced into the life sciences by the endocrinologist Hans Selye in 1936. He says: "Among other things, stress is not necessarily the result of damage but can be caused by physiologic function and it is not merely the result of a non-specification but also comprises the defenses against it".4

At the beginning, one should look at Selye's original conception of systemic stress. In arriving at this concept, Selye made much of the point that, although different disease syndromes have unique attributes and symptoms, they have many features in common and it is these features that are common among them, that constitute stress.

Systemic stress is manifested by a General Adaptation Syndrome (GAS). The first stage of this syndrome, or the "alarm reaction", includes an initial shock phase (in which defensive mechanisms become active). A second "Stage of resistance" follows, during which maximum adaptation occurs; and should the stressor persist however, or the defensive reaction proves ineffective, a third "State of exhaustion" is reached in which adaptive mechanisms collapse. Depending on the nature and intensity of the stressor and the condition of the organism at the time of exposure, the periods of resistance may be foreshortened or prolonged and the severity of symptoms may vary from mild invigoration to what Selye has called the "diseases of adaptation".

Pascal (1951) defines stress: "In terms of perceived environmental situation which threatens the gratification of need". Basowitz, Persky, Korchin and Grinker (1955) started their elaborate study of anxiety and stress in paratroopers. They started with a situational definition but concluded that, "In future research ... we should not consider stress as imposed upon the organism, but as its response to internal or external processes which reach those threshold levels that strain its physiological and psychological integrative capacities close to or beyond their limits". Cofer and Appley (1964) defined stress as "the state of an organism where he perceives that his well-being

(integrity) is endangered and that he must divert all his energies to its protection".  

Lazarus's view of stress by contrast, requires the presence of a damaging transaction between an organism and a condition in the environment. A damaging transaction involves, then, an individual's interpretation of event, press and personal resources. Such interpretations are heavily influenced by prior success or failure experiences, one's concept of self, motivational structures, demographic and cultural factors, and so on. It is these individualized factors that pose the difficult problem of defining most stress experiences.

In a broad sense, stress is both a stimulus and a response. On the stimulus side it relates to those actions and events that require individuals to put forth special levels of physiological and psychological response in order to regain an equilibrium that has been disrupted by situations marked by newness, rapid change, danger threat, boredom, fatigue and so on. On the response side stress is indexed by marked shifts in performance, increased propensity to error or to fatigue, and perhaps the most marked of all is a tendency for disruption or disorganization of behaviour.

Stress in its most neutral and extended meaning is defined as any action or situation that places special physical or psychological

demands upon a person - anything that serves to unbalance an individual's equilibrium or homeostasis. Stress is also used to refer to the state of a person in a threatening or difficult situation.

Stress is often regarded as a response state and that its induction depends on the mediation of some appraising, perceiving or interpreting mechanism.

1.3 FACTORS INFLUENCING STRESS:

Individuals differ in their experiencing of some stressful life events. The most general formation of the research question generated by these individual differences is: What are the factors that mediate the impact of stressful life events on the individual? In practice, this question tends to be divided along disciplinary lines into three parts:

- Biological factors
- Socio-cultural factors
- Psychological factors.

1.3.1 Biological factors:

Many biological factors influence stress and stress adaptability. Factors like infections, intoxications, physical traumas, malnutrition, common cold, illnesses, smoking, hypertension, heart ailment
etc., may lower the individual's stress tolerance. Besides low stress tolerance may be due to heredity itself. Another set of biological factors that influence stress are the more typical organic disturbances that directly affect the functioning of the central nervous system. Their role in psychopathology has been better delineated.⁸

Dr. Hoelzel, a Chicago scientific specialist in the physiology of the stomach, who regularly monitored his own gastric juices, says that gastric hyper-acidity and psychological stress are closely connected.⁹ Higham (1980) reported that delay in physical maturity causes severe stress in adolescents.

The severity of stress created by the invading viruses has been found to depend partly on the organism's ability to resist and destroy them, and partly on the available medical resources for helping the body's defences.¹⁰

Hotaling, Gerald, T.; Atwell, Saundra, G. and Linsky, Arnold, S. (1979) have examined how stressful life events would lead to the occurrence of illness. They have concluded that undesirable and ambiguous life events have more impact on illness than desirable events do.

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1.3.2 Socio-cultural factors:

In our life today, there are certain socio-cultural factors which place great strain both on the individual and on the society as a whole. Among them, the most important are war and threats of war; economic fluctuations, marital unhappiness, occupation dissatisfaction, excessive competition, racial, religious, caste, and class discriminations, and rapid social change.

Any study of the history of mankind shows that the conditions of warfare and the resulting upheavals and social disorganizations induce great stress on the life of individuals and groups. The increased stress, and tendencies toward hostility, and self-devaluation, have been found to be associated with racial discrimination. The victims of such a discrimination may also be subjected to lower economic and educational opportunities. 11

Some of the factors like status, security, financial loss or loss of a job with high status may also lead to severe stress. Antonevsky (1979); Cobb (1976) have proposed that social support may help buffer the effects of stressful life events. According to this buffering hypothesis, a strong social support system should facilitate better coping with major life changes.

Spiro, M. (1959) is of the opinion that each culture creates stresses and strains. Conflicts of cultural standards or mores may make life stressful.

Dohrenwend, Barbara, S. (1973) studied the relationship between social support and stressful life events. They hypothesized that persons in low social status are disproportionately exposed to stressful life events.

There is a wide range of environmental factors like famines, droughts, storms, fires, earthquakes, injuries, accidents and the death of loved ones, which can lead to stress.

1.3.3 Psychological factors:

In contemporary life there are a number of psychological factors that may influence stress and stress adaptability. Among them, the most important are: failure, losses, personal limitations, envious status, guilt, personality, achievement and intelligence.

Withdrawal of affection leads to severe stress. For example, a child losing the affection of its parents may experience severe stress.

Personal limitations, in the form of inadequate intelligence or lack of social charm may become sources of stress. Personal
characteristics which the group ignores or disapproves are likely to lead to stress. Guilt is one of the chief sources of stress and one that operates in all cultures.\textsuperscript{12}

Blewer observed that some types of schizophrenia would develop much more rapidly when the persons are under serious psychological stress.

Some researchers studied the effect of personality variables on life stress. For example, Coster, Paul, T. and Mc Crac, Robert, R. (1983) studied the contribution of personality research to an understanding of stress and aging. They show that personality has an enduring and pervasive influence on the lives of family members. It also influences the stressful life events that people encounter.

Severity of stress depends not only on the nature of the stress situation and the individual's resources - both personal and situational, but also on how the stress situation is perceived, evaluated or reached to by the individual. For example, a divorce may be highly stressful for one partner while it may not be so for the other.

1.4 MEASUREMENT OF STRESS:

The measurement of stress relevant processes is exceedingly complex. No simple or single class of measurement devices can solve the problem adequately. It has been suggested that the shortcomings of one measuring device should be compensated for by the simultaneous use of others. In the measurement of stress, life events play an important role. A 'little chart' by Adolf Meyer in 1930s taught that life events may be an important part of the etiology of a disorder. A life-chart is considered as a tool in diagnosis and in measuring the magnitude of stressful life events.

A few searching, theoretical examinations of life events from a life course perspective have also questioned the adequacy of the life events approach to the measurement of stress. A review of literature about the measurement of stress suggests three types of approaches in measuring stress. They are interview, checklist and scales.

1.4.1 Interview:

The interview technique was used during the developmental phase of stressful life events research. It was used to assess the meaning of the events which have occurred in the life of an individual. The interview technique was constructed by a number of scholars and
used in their research. For instance, Thomas H. Holmes and Minorch Masuda have used the interview technique in their study on life change and illness susceptibility. Paykel, E.S. (1969) also used the interview technique while studying the relationship between life stress and clinical psychiatric disorders.

A number of structured and unstructured interview schedules were developed and used by different investigators. For example, the Structured Interview Schedule (Dohrenwend et. al., 1970) and the Psychiatric Status Schedule (Spitzer, Endicott, Fleiss, Cohen, 1970) were both designed to elicit evidence of psychiatric symptomatology. Each type of interview schedule also contained an identical section designed to elicit reports about stressful life events. Some of the interview schedules, however, were converted into questionnaires in due course.

1.4.2 Checklist:

In some of the studies on stress checklists were used. The typical example of such checklists which have been used in many researches, are - (a) Self-reported Stress and Arousal Checklist developed by Cox, Tom and Mackay Colin and (b) Family Stress Checklist developed by B.D.Schmitt (1978).

Events like, moving to better neighbourhood, birth of first child, change to more secure job etc., are included in the checklists.
Each of the items in the checklist is an objective event in the sense that its existence theoretically and often practically can be verified. But most of the checklists in use have overlapping items. They vary in length, content, relative number of positive (desirable) and negative (undesirable) items, and the number of items over which respondents have no control - for instance, death of a friend in contrast to marriage. Most checklists over-emphasize the events of young adulthood, undesirable and subjectively evaluated events, making the interpretation of findings difficult.

1.4.3 **Scales:**

In the measurement of stress the role of scales is very significant. Such scales are constituted of items representing stressful life events relating to day to day living. For each one of these items, the person answering the scale, has to indicate his/her preference/preferences. The responses then will be subjected to quantitative analysis and it becomes possible to arrive at a score that indicates adjusting behaviour of the individual in various stressful situations. In understanding the nature and importance of stress, the scales have been most useful. Numerous studies done with the help of stressful life events scales have shown significant advancement in the study of stress.

The emergence of several stressful life event scales provide the basis for quantification of responses. The Social Readjustment
Rating Scale developed as a measure of stress by Holmes and Rahe (1967) is the most commonly used instrument. The other important measure of stress happens to be "Scaling of Life Events" by Paykel (1971). In India also these two scales have been used with local translations and modifications. However, one life events scale developed in this country, and which is being used by some investigators, is the "Presumptive Stressful Life Events Scale" of Gurmeet Singh, Ms. Dalbir Kaur and Mrs. Harsharan Kaur (1983).

1.4.3.1 Schedule of Recent Experiences (SRE):

Schedule of Recent Experiences (SRE) was developed by Hawkins, Davies and Holmes (1957). The life event items contained in the SRRS in fact were originally used in the construction of the SRE scale. The items which are in the SRE scale are so general that the scale may as well function as a measure of mood or personality. SRE scale can be administered both by interview method and by questionnaire method.

SRE scale consists of 47 life change events like:

1. Entered College
2. Married
3. Trouble with your boss

While answering the SRE scale, the respondent has to indicate
the timing of the events (i.e. six-month interval(s) over the past two
to three years), which happened in his life.

The reliability co-efficients of the SRE scale vary from as
high as .90 to as low as .26 (Thurlow, 1971; Mc Donald Pagh, Gunder­
son, and Rahe, 1972; Cosey, Masuda and Holmes, 1967), while the
validity estimates vary from as high as .78 to as low as .50 (Rahe,
Romo, Bennett and Siltanen, 1973).

Douglas (1967) however, is of the opinion that the SRE
scale is far too vague in specifying the situation to be rated.

1.4.3.2 Social Readjustment Rating Scale (SRRS) :

Social Readjustment Rating Scale (SRRS) of Holmes and Rahe
was developed to measure the intensity and length of time necessary
to accommodate to a life event, regardless of the desirability of this
event. This scale has been used as a tool to investigate the similari­
ties and differences among cultures, to study recall of life events,
and to evaluate the relationship of life change to the occurrence of
disease.

The SRRS consists of 43 life event items like :

1. Death of spouse,
2. Begin or end school,
3. Minor violations of law.
These items were selected through sampling of life situations drawn from the areas of family constellation, marriage, occupation, economic condition, residence, group and poor relationships, education, religion, recreation and health.

Subjects were asked to rate each event on a scale from 0 to 1000 in terms of the amount of "change" or "getting used to" or "readjustment" required by the event. Subjects were asked if each item would require more or less readjustment than getting married and how much.

One of the major difficulties often faced concerns the subjectivity or objectivity of the questionnaire.

1.4.3.3 Presumptive Stressful Life Events Scale (PSLE Scale) :

Presumptive Stressful Life Events Scale (PSLE scale) of Gurmeet Singh, Ms. Dalbir Kaur and Mrs. Harsharan Kaur was developed to estimate the mean number of stressful life events experienced by normal adult population in Indian culture.

PSLE scale consists of 51 life events like:

1. Lack of child
2. Large loan
3. Change in social activities.
While responding to the scale the subjects have to report the relative stress they have actually experienced or imagined, what they would feel on each item specified in the scale in terms of percentages keeping 100 as the highest score. Mean stress score experienced on each item was calculated and then events were ranked from high to low according to their mean stress scores.

Norms for number of life events experienced were worked out only with the presumptive stress scores on each event.

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