CHAPTER 2.

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INTRODUCTION

Ever since Hans Selye (1936) brought the revolutionary concept of "Stress" voluminous research has been done by various investigators and scholars in this field.

The notion that major stressful life events can give rise to mental illness is prevalent since antiquity. But scientific investigations in this area have been carried out only in the last few decades.

It is becoming recognised that stress can be one of the components of any disease and prominent attention has been paid to the link between stress and survivorship in medical and psychosocial research.

The present research work has been planned to focus on the role of stressful life events and their impacts on some cognitive aspects amongst normals, neurotics and psychotics. So, considering the underlying assumption the relevant theoretical literature and findings have been taken into account in the present study.

Review of literature is restricted to the measurement of life stress events, life stress events and some mediating factors, life stress events and psychiatric disorders, life stress events and some moderating (buffering) factors and
mental health and subsequently it also includes the findings related to life stress events and some selected cognitive aspects, namely, cognitive planning (Life-purpose), cognitive style, cognitive failure and cognitive approach (personal problem-solving).

2.2. **Measurement of Life Stress Events**

There is a burgeoning research literature in the context of life events and their effects on individual's adjustment and psychological and physical disorders thought to result from stress. Therefore, quantification of life events was of great essentiality in stress research.

The pioneering work of Holmes and Rahe (1967), paved the way to this aim. The life-event approach served as a rich lode and gained immediate and widespread acceptance in stress field; as it promised to provide a new perspective on the relationship of life events to pathology.

Influenced by the work of Meyer, Wolff and other participants of the 1949 conference, Holmes and Rahe (1967) developed the Social-Readjustment Rating Scale (SRRS). The stressful life events scale was most widely used in the 1970s (Gunderson and Rahe, 1974; Dohrenwend and Dohrenwend, 1974). Their initial measure was called schedule of Recent
Experience (SRE) (Hawkins et al. 1957). This was a measure of incidence of life events (Derogatis, 1982), and a subject's life stress score was simply the number of events he or she reported experiencing during a recent interval of time (Hawkins et al. 1957; Derogatis, 1982). However, Holmes and Rahe (1967) brought some further sophistication to SRE to provide for objectivity in the assessment of life stress.

In their observation, Holmes and Rahe (1967), noticed that "Life events cluster at the time of disease onset". According to them and their co-workers (Holmes and Masuda, 1973; Rahe, 1972), it is not necessary that the negative or undesirable quality of life events that lead to pathology; rather, it is simply the amount of change involved. Each change in the life of a person requires an adaptation, and organisms have a finite capacity for adaptation. If the amount of change in a given time period (even change that is considered desirable) exceeds the adaptive capacity of the organism, then the result is a lowering of bodily resistance; and the probability of disease increases. As Holmes and Masuda (1973, p.182) expressed, "The greater the magnitude of life change (or life crisis) the greater the probability that the life change would be associated with disease onset, and the greater the probability that the population at risk would experience disease".
The social Readjustment Rating Scale (SRRS), devised to express quantitatively the total impact of a series of life changes that vary in quality, intensity, and frequency. There is a list of 43 events ranging from the banal (Vacation) to the tragic (death of a spouse), from the frequently occurring (change in food habits) to the rare (imprisonment), from the clearly desirable (marriage) to the clearly undesirable (being fired from work). This list has been submitted to many people of varying ages, social classes, religions, and races. The respondents were asked to compare the amount of adaptation required by each event with that required by the event arbitrarily selected as a standard (e.g. marriage). On this basis a weight is assigned to each event. The amount of change experienced by any person in a given time can then be summarized in a single score, derived by multiplying each change by its weight and then summing the results. The global score is expressed in terms of Life-change units (LCUS).

Holmes and Rahe found that the higher the respondent score on their scale, the more likely he/she becomes physically or mentally ill. Their research found that 80 per cent of those who scored more than 300 LCUS, and 53% of those who scored between 150 and 300 LCUS, were physically ill. Scores of 300 or more were found to be highly predictive of serious physical and mental illness within the next two years.
The SRRS and SRE are used together widely to study life stress and its correlates, because of their availability and simplicity.

Life events have also been studied by Paykel and others (1971). They have followed a similar approach to that of Holmes and Rahe (1967) to measure stress due to life events. They chose 61 events to assess stress in terms of how upsetting the judges perceived each life event to be.

Brown and Birely (1968) viewed "events which on common sense grounds are likely to produce emotional disturbance in many people" as life events (1968, p. 204). Here, emotional disturbance denotes negative or undesirable quality of an event. Their major focus and theoretical conception was on negative or undesirable aspects of the events, due to which events seemed "stressful". Brown and Birely (1968), and Brown and Harris (1978) used a semi-structured interview method to collect information on life events and the circumstances in which life events occurred. Their method was referred to as "London measure". In their approach, the major focus was on contextual threat of an event.

Other scales have also been developed including PERI (Dohrenwend, et al. 1978) and Life Events Scale (Sarason et al. 1978). These various instruments provide tools to
systematically survey and quantify the social readjustment or adaptive challenges associated with a variety of changes in life patterns. The format of these instruments is to provide respondents with lists of discrete life events that demand varying degrees of individual adjustment.

The respondent is asked to check off those events that have occurred within some specified time period (generally within the last 6 or 12 months). In some versions of the scale (e.g., LES), the respondent is also instructed to rate the perceived severity and direction (positive or negative) of the event's impact. More typically, normative adjustment weights derived from previous research studied are preassigned to each life event.

Most of the investigators in India have made use of SRRS (Holmes and Rahe, 1967) or scaling of life events (Paykel, 1971) with local translations but without any major modifications to suit the Indian population.

Rao and Nammalvar (1976) have modified the life events inventory which was originally developed by Tennant and Andrews (1976) for Australian population.

Therefore, Singh et al. (1981) felt the need to construct a new scale suitable for Indian population. They standardized a life event scale following Holmes and Rahe's (1967) approach of magnitude estimation of adjustment. They also added some
items pertinent to the Indian culture such as conflict over dowry, going on a pilgrimage, lack of a male child, etc.

A major problem of life event measurement as an indicator of stress is the scoring of life events. Some investigators score all events together, others score undesirable events separately from desirable events, some use weighted scores for events, and others use the individual's assessment of perceived stress for each event.

Item scores can be totalled or averaged. A single event may be studied, such as death of a spouse or unemployment (Linn and Sandifer, 1985; Pearlin et al. 1981), to help clarify relations between event and outcome; however, other events occur to confound such relations. Scoring certain types of events together has sometimes been useful (Hurst, 1979).

For those who advocate weighted scores, raw score totals have been shown to correlate highly with weighted scores (Mc Farlane et al. 1980; Rahe, 1978). Those who prefer to use an individual's own assessment on the assumption that only the individual can judge how much stress he or she feels during an event, face the problem that perception can be coloured by current mood or prior experience (Brown, 1974; Cleary, 1981).
Gersten et al. (1974) regards the undesirability rather than simply the total amount of change as the better definition of stressor. He concludes that the number of undesirable life events or a balanced scale (sum of undesirable events minus some of desirable events) may be a better predictor of subsequent behavioural or psychological impairment. Categorization of events can also help to overcome this deficiency and shortcomings of measurement of life events in future research fields.

2.3. Life stress and Some Mediating Factors

Another issue in life events research which warrants attention is the possibility of interaction between stressful life events and some mediating factors. Some obvious ones would be demographic background (Dohrenwend, 1978; Krasnoff et al. 1978; Horowitz et al. 1974; Miller et al. 1974). Characteristics of demography and life style, whether adopted by choice or by default, serve to place people at increased or decreased risk for stressful events and can thus influence even simple frequency counts of events reported, as well as subjective ratings.

Some other obvious ones would be effect of sex, age and socio-economic status.
Within the major tradition of stress research, which focuses on the stress of life change, relatively little attention has been paid either to sex differences or to women's experiences of stress. As Makosky (1980) noted, most life events stress studies have focussed on exclusively or predominantly male research populations: "prisoners of war, football players, industrial employees, physicians, and Navy personnel at sea, for example" (p. 114).

Sex comparisons are rarely reported, and the standard inventories of stressful life events include a disproportionate number that apply more often to men than to women, while excluding crucial events that women are likely both to experience and to find stressful. Thus, being drafted or being promoted at work often appears on inventories of life events, while experiencing an abortion, a rape, or a change in child-care arrangements generally does not.

Among researchers who have used an inventory of recent life events to compare the experiences of men and women, Dohrenwend (1973) reported that women had significantly higher life change scores, while Markush and Favero (1974) and Uhlenhuth, Lipman, Balter and Stern (1974) reported no sex difference in the amount of life change experienced.

In another study, it has been reported that women may perceive some events as more or less stressful than men and
respond differently to the situation.

There is some evidence which suggests that the number and type of stressful events vary with age being significantly different in those below thirty years of age and older people (Wilkie, Francer, Fisdorfer, Staub, 1984; Magnusson and Stattin, 1981).

With respect to the role of socio-economic status, Dohrenwend and Dohrenwend (1969) found that lower socio-economic class members experience more frequent stressful events than do middle class members. Sharma (1974) studied tension in adolescents and noted that adolescents of lower income group had higher tension than the adolescents of middle income group. There were racial and socio-economic group-wise differences in perception of stress due to daily concerns. Low-income respondents reported frequently being upset about daily concerns than the middle-income subjects (Tiblier, 1979).

In short, investigators will need to move closer to the phenomenon of life stress and focus more explicitly on the individual, situational and life event correlates of specific outcomes.

2.4. Life Stress Events and Psychiatric Disorders

The current miserable conditions of the society and its mental health is alarming. Tension and stress have become the
part of life. Even the 20th century has been branded as "the age of stress and anxiety". Coping mechanism is failing to adjust because of excessive tension and stress in the society.

Causes may vary from faulty learning, conflicting objectives, unclear philosophy of life, dualism, false ego and fast changing values and norms of society and other stressors of life. "Life events" and "Stressors" refer to discrete changes in life condition that are consensually recognized as entailing some degree of distress, challenge and/or hazard by the individual and members of his/her social group.

The research on life events (death of a close friend, divorce, personal illness, change in residence, etc. as important stress factors in individual's life has related stress symptoms to quantitative measures of life events, most often in terms of frequency of such events. Research on the relation between the frequency of stressful events per se and the strength of stress symptoms has implicitly assumed that life events have a general and non-specific impact on somatic and psychic illness (e.g., Holmes and Rahe, 1967; Lundberg and Theorell, 1976; Theorell and Rahe, 1971, 1975).
Considerable research has revealed that biochemical, physiological, and pathological changes in an organism do not seem to be caused by the aversive or noxious nature of the demand (Stressor) but by the ability or inability of the organism to deal with this stressor. If an individual can cope successfully with the environmental challenge, little or no stress is experienced; the challenge is viewed as minimally stressful, and no major health consequences seem to arise. If an individual cannot cope or needs a great deal of effort to cope, stress is experienced, and major health consequences seem to arise (Vogel, 1986).

Major and significant life events have been repeatedly implicated in the onset of depressive conditions, neurotic disorders, and social maladjustments (Brown, Harris, 1978; Cohen, 1979).

Researchers have reported that in addition to major stressful life events, daily life stressors (hassles) may operate in a synergistic fashion; that is with both types of stress present, the risk of impairment may be significantly greater than if only a single factor was operating (Kanner et al. 1981; Pearlin, Lieberman, Menaghan and Mullen, 1981; Monsore, Scott, 1983; Eckenrode, 1984).

Across several surveys of college students and adults who reported having experienced one of several types of
childhood traumatic events (e.g., sexual or physical abuse, death or divorce of parents) were more likely to report current health problems, specifically if they had not disclosed the trauma to others than if they had divulged it (Pennabaker and Hoover, 1986; Susman, 1986).

Several studies suggest that unscheduled and uncontrollable life events and/or events that are less predictable are more likely to produce illness (McFarlane, Norman, Streiner, Roy and Scott, 1980; Suls and Muller, 1981).

In a research work, events on the schedule of recent life events were separated into controllable and uncontrollable categories on some undergraduates. It was found that the relationship between life events and illness depended on whether or not events were viewed as controllable. The greater the illness reported, when the respondents identified the life events as uncontrollable. Events perceived as uncontrollable were rated as significantly more stressful than events perceived as controllable (Terrie and Pathine, Paisley, 1982).

In addition, individuals who generally feel less autonomy and control over their own lives (external locus of control) have greater anxiety and depression in response to negative and undesirable life events than do internals (Johnson and Sarason, 1979).
Stress due to environmental disorders or social upheavals is an important factor in the etiology of severe psychiatric disorders and the greater the net-change in life events the more likely is the individual's mental status to be changed. A net-increase in life events is associated with a worsening of symptoms, while a net-decrease will result in improvement (Meyers, Lindenthal, Pepper and Ostrander, 1973; Perdomo, Arango and de Lopez, 1975).

A prospective study of the influence of critical life events on the development of depression was conducted. Results, as expected, indicated a low but significant correlation. Depressive syndromes associated with specific environmental and social situations involve unavoidable suffering or stress. These types of depression include apathetic depression, displacement related depression, pseudo-neurotic depressive reactions and depression following the achievement of a long-sought goal. Biological causes of depression are included when a patient shows totally disproportionate reactions to mildly stressful events (D'Agostino, Domenico, Marino, Francesca and Guiuseppe, 1986; Hautzinger, Friedhoff and Platt, 1986). Some investigators administered the interview schedule for recent life events to schizophrenic patients and normals paired for age, sex, marital status, and social class. Schizophrenics reported more life events than the controls
in the areas of work, health, and social and familial relations, and also experienced more event with a moderate to severe objective negative impairment.

Data suggested that the possible role of premorbid life events in "genetic" or familial schizophrenia should not be minimized; attention should be focussed on premorbid stress as a possible etiologic factor regardless of the individual's genetic risk (Canton, Graziano and Faccon, Ida, Gruen and Baron, 1986).

In another research work, the magnitude of the effects of life events in the causation of depression, neurosis, schizophrenia and suicide attempts were studied. It was found that risks for the stressful types of event were greater for depression and neurosis than schizophrenia and even greater for suicide attempts (Paykel, 1979; Schless, 1979; Justice, Mc Bee, 1982).

Research on stressful life events in India is limited and confined primarily to clinical case studies.

The relationship of life events to psychiatric disorders was studied by several authors (Venkoba Rao and Nammalvar, 1976; Venkoba Rao, 1979; Chenna Basavanna et al. 1980; Rudra Prakash et al. 1980; Rangaswamy and Girjia Kamakshi, 1983).
All of the principal investigators of life stress in India to-date have used scales from Anglo European cultures consisting primarily of dramatic, discrete events.

Rao and Nammalvar (1976), using a life events schedule developed in Australia, found that depressed patients experienced the same number of life events as controls, but the mean distress score for events was higher among the depressives. There was also a clustering of life events noted during the two-year period preceding the onset of depression. Bereavement in particular was noted as a critical precursor to depression. Of interest, death of spouse seemed no more potent than death of a parent as a factor in the etiology of depression. This markedly contrasts with findings in the United States including the loss of a mate which is considered more serious. This result may reflect the impact of joint family arrangement within which all relationships are vulnerable more or less similarly.

More recently Satija, Nathawal and Shah (1982) also studied life events in depression. They found that psychiatric patients who were more severely depressed had significantly greater life event scores during the six months preceding depression onset.

In another life events study completed in India, Wig, Menon and Chawla (1982) measured the impact of life events
on short term prognosis of schizophrenia. Of particular note is the author's use of prospective design and their findings that schizophrenics with more life-events during a six month period had slower recovery.

Chatteropadhyay and Das (1983), conducted a research to determine the relationship of desirable-undesirable life events to psychiatric symptomatology. A stressful life events scale was administered to psychotics, neurotics and normal controls. Findings indicated that neurotics (subjects with anxiety neurosis, neurotic depression, phobias, conversion reaction, and obsessions) had significantly higher stress scores than normals for both recent and remote events. Normals had higher stress scores on desirable events only, while for psychotics (schizophrenics and manic-depressives), there was no such difference in either type of event (recent-remote or desirable-undesirable).

Sethi and Prakash (1980) studied a group of primary depressives with Paykel's inventory and compared their life events from those of a control group consisting of schizophrenic subjects. The investigators reported that the depressives experienced a significantly higher number of life events than schizophrenics.

These theoretical reviews pertain to life stress events and its relation with mental health in western and Indian
culture.

We may conclude that there are certain life events which are stressful almost universally, while certain other life events are culture specific in so far their stress producing effects are concerned. Events which are exclusive to Indian sample reflect the social condition prevalent and producing stress to an individual, e.g., marriage of a daughter, unemployment, death of a parent, etc., clearly illustrate the above point. The type of events which have a tendency to cause stress reported exclusively by foreign samples are totally of different nature, e.g., change in recreation, christmas, etc.

This reflects the socio-cultural significance attached to certain life event by particular culture or society.

2.5. Life Stress Events and Some Moderating (Buffering) Factors and Mental Health

Although an impressive body of evidence has demonstrated a link between stressful life events and both psychological and physical distress (Dohrenwend and Dohrenwend, 1981), increasing attention has focussed on factors that may moderate the stress-illness relation (Johnson and Sarason, 1979; Kobasa, 1982 b).
The potential value of this direction in stress research is understood by the moderate size of the association between life stress and dysfunction (generally below .30) and the standard deviation in illness scores (often larger than the mean; Rabkin and Struening, 1976).

Recent research on life stress adjustment has included measurement of variables hypothesized to moderate (buffer) the deleterious effects of negative life events. Stress buffering refers to a variable's mitigating influence on reactions to high levels of recent life stress (Cohen and Wills, 1985).

Three sets of stress moderating factors are personality variables, cognitive coping strategies, and social support.

Personality characteristics may operate as "Personal resources" during stressful periods (Johnson and Sarason, 1979). For example, Kobasa and her colleagues (Kobasa, 1979; Kobasa, Maddi and Kahn, 1982) have shown that a constellation of personality factors they term "hardiness" (such dispositions as commitment, control and challenge) distinguished between business executives who became ill and those who remained healthy when experiencing a high level of life stress.

Thomson and Sarason, 1978; Lefcourt, Miller, Ware and Sherk, 1981; reported an association between life stress and anxiety and depression for college students who had an
external locus of control, but they found no such relation for those with an internal locus of control.

In one study, specifically the relationship between sex role orientation and life stress adjustment was examined by Shaw (1982). He found that female androgynous college students, compared with female students of the other sex role orientations rated their stressful life events as less undesirable. Undifferentiated students of both sexes rated their events as less meaningful. Shaw hypothesized that the androgynous subject's more sanguine evaluations of their negative events were due in part to their greater access and use of social support.

In another study it was also reported that individuals who score high on psychological masculinity will cope more effectively with recent life stress than will individual who score low on masculinity. Direct support was given by Nezu et al. (1986), who found a significant negative life events X masculinity interaction in the prediction of college students' depression, with high masculinity buffering the effects of high recent life stress.

Some investigators have examined coping strategies that may offset the harmful effects of life stress (Lazarus and Folkman, 1984; Schooler, 1978; Pearlin, Silver and Wortman, 1980; Taylor, 1983; Moos, 1985).
Among Lawyers experiencing high life stress, Kobasa (1982 a) found that those who used fewer avoidance coping strategies (attempts to deny, minimize or get away from the stressful situation) showed less symptoms of psychological and physical strain than did those who engaged in avoidance coping.

Pearlin and Schooler (1978) found that a coping strategy involving a tendency to selectively ignore the worst aspects of a stressful circumstance and to focus instead on some positive aspect of the situation was effective in dealing with stressors in the economic sphere, though counter productive in the areas of marriage and parenting.

There is also a growing recognition that self-cognitions play a role in coping, depression, and various mental health processes (e.g., Beck, 1976; Higgins, Klein and Strauman, 1985; Kuiper and Derry, 1981; Linville, 1985; Cantor and Kihlstrom, 1986).

It is suggested that individual differences in vulnerability to stress are due, in part, to differences in cognitive representations of the self; more specifically, to differences in the complexity of self-representations. The greater self-complexity entails cognitively organizing self-knowledge in terms of a greater number of self-aspects and maintaining greater distinctions among self-aspects. The greater self-
complexity moderates the adverse impact of stressful events or physical and mental health outcomes.

Thus, greater self-complexity is a protective factor for people under stress. It has been reported that subjects higher in self-complexity were less prone to depression, perceived stress, physical symptoms and occurrence of the Flu and other psychological illnesses following high levels of stressful events. These results suggest that vulnerability to stress-related depression and illness is due, in part, to differences in cognitive representations of the self.

Considerable attention have also focussed on the role of social support as a buffer for persons experiencing life stress, (e.g., Cassel, 1976; Cobb, 1976; Conway, Kessler, Price, Mcleod, 1985; Heberman, 1983; House and French, 1980; Cohen and Wills, 1985).

Eaton (1978) reported a stronger association between life stress and psychiatric symptoms among unmarried persons and those living alone than among individuals who were married or living with someone. In a community sample, Wilcox (1981) found stronger relations between lack of social support and psychological distress as individual's level of stress increased.
Many researchers have focussed on the relation between social support and morbidity (e.g., Berkman, 1984; Broadhead et al. 1983), physical health status (e.g., Haynes, Feinleib, and Kannel, 1980; Israel, 1982) and institutionalization and length of hospitalization (e.g., Wan and Weissert, 1981).

Holahan and Moos (1985) have examined the stress resistance role of personality, coping and social support. Using a survey with a representative community sample, respondents were separated into distressed group (high stress, high distress) and a stress resistant group (high stress, low distress). As compared to individuals who showed depressed mood on physical symptoms under stress, persons who adapted to life stress with little physical or psychological strain were more easy going and less inclined to use avoidance coping, such as keeping their feelings of strain bottled up or experiencing them antagonistically. In addition, in the stress-resistant group, men were more self-confident and women had quantitatively better social-support in their family settings than their counterparts in the distressed group.

House (1981), developed a taxonomy of social support on one axis (e.g., spouse, friends, other relatives, etc.), and types of support on a second axis (emotional, instrumental-tangible, appraisal and informational). Appraisal support refers to information relayed to the subject that one can
use for self-evaluation and social comparison. Informational support is the provision of data the person can use to cope with the stressor. Cohen and Mckey (in press) have independently derived a taxonomy of social support that is very similar to House's work. This taxonomy includes tangible, emotional, and appraisal support. They further subdivided emotional support into self-esteem and belonging. Threats to self-esteem can be caused by self-attributions of failure or inadequacy because of the occurrence of some events. Emotional support may also be influenced more directly by separation from a close interpersonal relationship.

O'Hara, Michael, 1986; assessed some married females during their 2nd trimester of pregnancy and 9 weeks postpartum for non-psychotic depression, life stress, and social support provided by their spouses and their closest confidants. Findings indicated that the SS who were depressed prepartum did not differ from those who were not depressed prepartum in the number of stressful events experienced from the beginning of Pregnancy through the prenatal assessment; the depressed SS reported somewhat less support from their spouses and more support from their confidants than did non-depressed SS. The SS who were depressed postpartum indicated more stressful life events and less support from their spouses after delivery than the SS who were not depressed postpartum.

House (1981) and other researchers cogently argue that social support may have buffer effects on health but often
may also have direct effects on the degree of stress experienced. It is often difficult, particularly in cross-sectional designs to tease out interactive, buffer effects from the main effects of social support on stressors.

Lin, Simeone, Ensel, and Kuo (1979), for example, were unable to demonstrate a buffer effect of social support; whereas absence of support apparently had a direct, positive effect on psychiatric symptomatology. On the other hand, several studies are suggestive of buffering effects for social support on outcomes that have included; pregnancy complications, use of drugs to control asthma, psychiatric status, illness, and depression (Cohen, in press; House, 1981; Johnson and Sarason, 1980).

Thus, measures of social support, stressful life events and outcome measures of health must be relatively independently in order to detect meaningful measures of the main and interactive effects of stressful events and social support on mental and physical health.

Consideration of such moderating (buffering) factors in relation to stress exposure leads to a multifactorial model of illness that includes a temporal sequence. It seems probable that such an approach ultimately will facilitate our understanding of who becomes ill in what circumstances.
2.6. **Impact of Stressful Life Events on Some Cognitive Aspects**

Stressors are events that have unfavourable implications or potentially unfavourable outcomes for the person and as a consequence the individual fails to perform and execute tasks adequately and efficiently and report feeling powerless, purposeless and exhasuted.

The stressors (events) may bring out (create) poorly co-ordinated motor movements and inability to concentrate for the individual. Once the system is working under the influence of stress, the resulting changes will take place in cognition.

If the person has coped with the event that was initially interpreted as stressful, then the harmful effects of stress on cognitive faculty will be diminished; and if the individual was unable to use an adaptive response strategy, the cognitive deficits at various levels may occur.

The level, severity, and persistence of deficits depend on how stressful the event was for the victim.

Heider describes cognitive balance as the cognitive tendency towards a balanced state in which perceived relationships between persons and/or objects co-exist without stress and tension.
Jaspars (1980) has shown, however, that the balanced or imbalanced state of a cognitive system depends upon the nature of underlying cognitive representations. It has been emphasized by some scholars that crisis and life stressors may bring fluctuations in an individual's image. It has been reported that various events during pre war and war periods brought about changes in cognitive clarity, affect intensity and actions.

Exposure to an environmental stressor can result in an overload of the individual's capacity to process the information necessary to carry out task-related social activities effectively.

Cohen (1980) argues that unpredictable, uncontrollable and undesirable stressors substantially increase the demands placed on an individual's attention capacity and cognition, because they are potentially threatening. In effect, such stressors demand a high level of sustained cognitive appraisal if the individual is to ascertain the nature of the stressful situation and determine appropriate coping responses. When demands on the individual's attention capacity are prolonged, Cohen explains, the attention capacity will shrink, showing "Cognitive imbalance" which reduces the capacity to process information and its effects are most evident on complex tasks and problem solving and other ongoing activities that involve a considerable amount of information.

The following review of literature restricts to the
effect of life stress events on some cognitive aspects, namely, cognitive planning, cognitive style, cognitive failure and cognitive approach.

2.6.1. Life Stress Events and Cognitive Planning

(Life-Purpose)

Karen Horney proposed that the cognitive planning (Life-purpose) in a normally functioning individual is composed of reasonable goals and plans around which behaviour is organized and aspirations realized.

In this view, the concept of life-purpose is commonly portrayed as a mental image of the self-perfected. The mentally healthy person behaves morally high because of a sense of connectedness with his life activities. On the other hand, for the neurotic, however, the ideal self-image is an immutable standard that can never be achieved. It haunts and cripples its victim in a severe manner and as a consequence purposelessness occurs for the individual. Neurotics and other victims cling to unalterable fictional finalisms and dare not to tamper with them in order to preserve life's meaning and purpose.

William James (1890) noted that disappointment is frequently experienced when achievements fail to match
aspirations. Both Cooley (1902) and Mead (1934) expressed similar ideas. For example, Cooley wrote of the distress that arises when one's present self consistently falls short of one's social ideal-self. Such a mental image is characterised by a conspicuous absence of life goal or purpose that integrates human striving and gives it direction, coherence, value and meaning.

Life goals and purposes are conceptualized in terms of personal strivings, which represent what individuals are characteristically aiming to accomplish through their behaviour or the purpose or purposes that a person is trying to carry out. More crisply, a personal striving is what a person is characteristically trying to do. Personal strivings organize and integrate an individual's goals and purposes.

In one investigation, Emmons and Diener (1985 b) witnessed a considerable amount of shrinkage in strivings of the individuals to achieve life goals and purposes. Emmons and Diener (1986) reported that satisfied and happy men were involved with a large number of goals and plans, whereas unhappy men were uncommitted to goals and had few long-term prospects.

Roberson et al. (1984) pointed out that job satisfaction was positively correlated with probability of success and
with means known to achieve goals and on the other hand, job stress was related to unhappiness, exhaustion, and lack of interest in daily activities.

Klinger et al. (1980) and Erikson, Post and Paige (1975) found that probability of success and life goal and purpose was negatively correlated with a measure of depression.

Scheier and Carver (1985) showed that a measure of generalized outcome expectancies was negatively associated with measures of depression and anxiety.

Extensive studies testify to the wide-spread prevalence of 'existential neurosis', 'existential anxiety' and 'demoralising states' (Thorne, 1973; Pishkin and Thorne, 1973) and feeling of alienation and pathological loss of 'purpose-in-life' (Gon, 1982).

Missinne and Willeke-Kay (1985) have reported that crisis and stresses common to older people and their need for spiritual values will make them to experience a lesser degree of purpose-in-life as compared to young people.

Charmaz et al. (1984) suggested that people being overwhelmed with a number of stressful life events had suffered from loss of self and self-disliking and they had showed lower degree and pattern of purpose-in-life. They were
characterized by a greater sense of boredom and routineness, a sense of dissatisfaction and worthlessness with regard to past achievements and progress, a self-depreciating image and a more pervasive existential anxiety.

2.6.2. Life Stress Events and Cognitive Style

Cognitive style has been defined as "Consistent individual differences in preferred ways of organising information" (Messick et al. 1976).

The cognitive style of field-dependence and field independence has been studied extensively since the late 1940s (Asch and Witkin, 1948 a, 1948 b; Witkin and Asch, 1948 a, 1948 b). These studies have dealt with many different aspects of individual psychological functioning for example, the use of interpersonal space (Witkin and Goodenough, 1977), attention to social information (Konstadt and Forman, 1965; Nevill, 1974), therapeutic interactions (Pardes, Papernik, and Winston, 1974; Witkin, Moore, Goodenough and Cox, 1977), and individual preference for impersonal or interpersonal situations (Coates, Lord, and Jakabovics, 1975).

Some studies have addressed the effects of this cognitive style and group oriented phenomena, such as attitude change (Linton and Graham, 1959; McCarney, Dayhaw, and Chagnon, 1977), and conflict resolution (Oltman, Goodenough, Witkin, Freedman,
and Friedman, 1975).

However, there are few studies in the empirical literature that analyze cognitive style in clinical groups under life stress events.

A review of research on psychiatric inpatients (Pressey, 1968; Neville, Workman and Johnson, 1969; Johnson, Neville and Workman, 1970; Koran and Maxim, 1972) tends to reveal a relatively higher incidence of field dependence among the psychiatric inpatients which is taken to be not very consistent with the observation that psycho-pathological syndromes might be polarised at both the extremes of the dimension. Most of the mentioned work (and also recent one e.g., Lawrence, 1980; Lena, 1980; Berent, 1982), has been done with the clinical population and psychiatric nosological categories have been used for the description of relationship between field-dependence-independence and psychopathology.

In another research work reported by Stark, 1973; Minhas and Kaur, 1982; Minhas, 1983; it was found that field-dependence might display closer relation with indices of psychopathology as compared to one existing between field-independence and psychopathology.

It is held (Jackson et al. 1960) that psychological health and cognitive functioning are associated to this
extent that disorders and malfunctioning of the former will be accompanied invariably by disorders and malfunctioning of the latter.

Witkin (1965) reported that marked field-dependence is found in several clinical groups with symptoms commonly regarded as rooted in severe dependency or identity problems, passivity, helplessness and excessive use of identity problems.

Bieri (1960) found that psychologically maladjusted or emotionally insecure persons showed more global cognitive style, whereas emotionally healthy or secure individuals were found analytical type regarding their cognitive style.

Although field-dependent and field-independent persons experience comparable arousal levels under stress, studies with Defense Mechanism Inventory (DMI) have shown that persons who are field-independent are likely to express anger and hostility directly against others, while those who are field-dependent express such feelings indirectly (Glessner and Ihilevich, 1969).

Field-dependent persons tend to use global defenses such as turning against the self and reversal, while field-independent persons prefer differentiated defenses such as turning against the object and projection (Glessner and Ihilevich, 1969; Rohsenow, Erickson, and O'Leary, 1978).
Saegert and Kaminoff (1982) suggested that growing up in large cities, as opposed to smaller cities and suburban and rural areas was found to be associated with the development of a field-dependent rather than a field independent cognitive style, as revealed by an embedded figure task. That is, experience in large urban settings predisposes individuals to rely on environmental stimuli and stressful events, rather than their own cognitive structures, to understand and act in the world. It is possible to interpret this finding as a learned helplessness effect; individuals growing up in cities, which present confusing arrays of environmental stimulation, may quickly give up trying to discriminate a figure when it is embedded within a complex background.

Daly, Elizabeth (1986) investigated the relationship between stress of life change, ego energy, and field-dependent perception. Findings supported the idea that stress can increase the degree of field-dependency of the individual.

2.6.3. **Life Stress Events and Cognitive Failure**

The modern city dweller is bombarded with an inordinate array of physical, social and information bearing stimuli. It is small wonder, then, that the concept of environmental stimulation has dominated the literature concerning
environmentally induced stress. This idea has led some theorists to suggest that for each individual there is an optimal level of stimulation, lying between the two extremes, that maximizes human task performance, cognitive functioning, developmental growth, physiological health and aesthetic pleasure (Berlyne, 1960; Fiske and Maddi, 1961; Wohlwill, 1974). But since the urban environment is generally characterized by high, rather than low, levels of environmental demands (stimulation), the focus is on overstimulation which is associated with lowered task performance (Buggs and Simon, 1968; Bronzcraft and Mccarthy, 1975; Cohen, Glass, and Singer, 1973; Huckey, 1970), reduced helping behaviour (Mathews and Canoon, 1975; Page, 1977), as well as various health problems ranging from nervousness, sleep difficulties and headaches (Kokokusha, 1973) to increased blood pressure (Pavizpoor, 1976), elevated cholesterol levels (Khomulo, Rodinova and Rusinova, 1967) and Cardiac arrest (Capellini and Moroni, 1974).

The degree to which environmental event is perceived to be predictable and controllable influences the extent to which it creates cognitive malfunctioning for the individual (Averill, 1973; Cohen, Glass and Phillips, 1979).

Cohen (1978) suggested that unpredictable stressors are especially stress inducing because they place greater attentional demands on the individual's information processing capacities than do predictable events which led themselves more easily to habituation or minor effects may take place.
The more distressing the environmental stressors (events), the greater changes and decrements (deficits) it creates in cognitive functioning of the individual (Daniel, Poulton, 1979; Cohen, 1978).

In India, very few empirical work has been conducted so far on cognitive deficits which may result from confrontation with a number of stressful life events (e.g., death of a loved one, divorce, family conflicts, job dissatisfaction, etc.) which the individual cannot cope and adapt successfully.

In the present research, an attempt has been made to explore the possible relation between the occurrence of life stress events and the degree or frequency of cognitive failures which may take place for the individual.

During the past few years a considerable amount of interest has been developed in the assessment of everyday slips or other failures in cognition. This interest is perhaps due more to the work of Reason (1977, 1979) than of any other single individual; starting from the analysis of accidents reports and record of bizarre episodes of "absent-mindedness" and other disorders of attention, of memory, and of the control of thought or action.

Broadbent (1980) gave a significantly higher incidence of reported lapses in individuals whose jobs, as assessed before scrutiny of the lapse data, had a higher number of stressful components such as time pressure or social isolation.
In that case, there was a similar correlation between the stress features of the job and poor mental health as assessed by a modified version of the Middlesex Hospital Questionnaire (Crown and Crisp, 1966).

Recently, some attempt has been made to check whether cognitive failure is indeed a useful dependent variable showing the consequence of stress, or early signs of clinical problems.

2.6.4. Life Stress Events and Problem-Solving Approach

(Cognitive Approach)

For stress researchers to obtain a general understanding of the conditions and effects of stress, identification of stressors which might have occurred off schedule for the individual is needed.

Stress does not always have detrimental or maladaptive effects. On the contrary, anticipatory fear of excessive losses sometimes prevents premature closure. Such concerns can serve as incentives to carry out the adaptive "work of worrying", which leads to careful information search and appraisal (Janis, 1968, 1971; Janis and Mann, 1977).

One major reason that people deviate from a rational model of problem-solving pertains to the cognitive limitations of the human mind (Simon, 1976).
People simply cannot understand and keep in mind all the relevant information needed for an optimal solution to the problems they face. Nor they have at their command all the necessary knowledge about cause and effect relationships and all the base line data essential for making accurate probability estimates of alternative outcomes.

When the level of stress is very high the decision maker is likely to display premature closure-terminating the decisional dilemma without generating all the alternatives and without seeking or appraising the available information about the outcomes to be expected for the limited set of alternatives under consideration.

A high level of stress reduces the decision maker's problem-solving capabilities, especially when dealing with the complicated cognitive tasks posed by decisions rendered difficult by numerous competing values. The person's attention and perceptions are somewhat impaired and there are various manifestations of cognitive rigidity. These cognitive deficiencies result in narrowing the range of perceived alternatives, over-looking long-term consequences, inefficient searching for information, erroneous assessing of expected outcomes, and using oversimplified decision rules that fail to take account of the full range of values implicated by the choice.
Elstein and Bordage (1979) pointed out that at times of acute distress the rational choice in order to solve the personal problems is violated.

Both lay people and psychologists recognize that under stress the thought processes involved in problem-solving become narrowed and stereotyped. In other words, the thought becomes unelaborated. On the other hand, the unstressed mind will be elaborative, concentative, and productive. The individual is able to solve his personal problems rationally and analytically and he will use proper principles and techniques in order to overcome the challenges of life.