CHAPTER 2

Review of Literature
The introductory chapter outlines the conceptual growth of the concept of helplessness. However, the integrative nature of the construct is not confined to its conceptual territory. The broad generality of the construct is manifest as we survey the domains of its application.

**Consequences of Helplessness**

Consequences of helplessness are experienced in several domains of human adaption. These domains include depression, disease susceptibility, coping with undesirable life events, intellectual impairment and old age problems.

The reformulated model of helplessness rests on the framework of attributional style. So an examination of the association between attributional style and various states of passivity was a primary task. A variety of methods were applied to examine the role of causal explanation in helplessness syndrome.

**Depression**

The learned helplessness model of depression (Seligman et al. 1976) has emphasised the parallels between the laboratory phenomenon of helplessness and clinical depression. The central point in this model of depression is that the phenomenon produces motivational, cognitive and emotional components of depression.
The motivational deficits of the original model is similar to the passivity, psychomotor retardation and social impairment symptoms in clinically depressive patients. Cognitive deficit of the old model parallels the "negative cognitive set" (Beck, 1967), involving the belief that their actions are deemed to failure. The model also assumes that depressed affect results from the belief that outcomes are uncontrollable.

The syndrome of depression is a complex and heterogeneous phenomenon (Depue & Monroe, 1978). So the exact kind of depression that the helplessness phenomenon models is not clear. In fact, there may be a sub-class of depression (helplessness depression) which is consistent with the symptoms, etiology, prevention and cure of helplessness. This depression is caused by expectation of response-outcome independence. It is characterised by passivity, 'negative cognitive set' and depressed affect which may be treated with the therapeutic procedure designed to treat helplessness.

To Seligman (1975), both non-contingent positive and negative events produce helplessness and depression. The old helplessness model states that expectation of uncontrollability, regardless of the valence of the outcome, produces helplessness deficits including depressed affect. Available research goes for the performance deficit following uncontrollable positive events (Griffiths, 1977). But there is little evidence in favour of an
affective deficit. However, the intensity of the depressed affect increased with the desirability of the obtainable outcome or with the aversiveness of the unavoidable outcome. Strength of the depressed affect depends upon the strength of desirability. To Weiner, (1974), failures attributed to internal factors (lack of ability) produce greater negative affect compared to failures attributed to external factors (task difficulty). Thus depressed affect is more intense in personal rather than in universal helplessness.

The reformulated helplessness model, unlike the older hypothesis, suggested a fourth deficit - low self-esteem; besides motivational, cognitive and emotional deficits following expectation of uncontrollability. The old hypothesis failed to explain the depressive's low opinion of himself. The universal as well as personal helplessness predicts that depressed individuals attributing helplessness to internal factors will show lower self-esteem compared to those making external attributions. Ickes and Layden (1978) suggested that individuals with low self-esteem tend to attribute negative outcomes to internal factors and positive outcomes to external factors and the opposite is true for high self-esteem individuals.

There is a growing literature that has addressed the issue of naturally occurring depression. In an early study, Klein (1976) assessed the attributions of depressed and non-depressed college students for failure in discrimination problems.
Results indicated that depressed students tended to attribute failure to internal factors; whereas non-depressed students tended to attribute failure to external factors.

The most direct test of attributional reformulation of helplessness relating to depression was conducted by Seligman et al. (1979). He has attempted to delineate the role of attributional style in depression. The investigators administered the ASQ (Attributional Style Questionnaire) to college students along with two other questionnaires - the short form of B.D.I. (Beck Depression Inventory) and the Multiple Affect Check List (MACL) to measure depression. The investigators assessed the three dimensions of internality, stability and globality both individually and exhaustively. Results revealed that relative to non-depressed students, depressed students attributed bad outcomes to internal, stable and global factors. They were also more likely to attribute good outcomes to unstable external factors.

Peterson, Nutter and Seligman (1982, unpublished manuscript) conducted a study in which sixty six subjects wrote an essay from which causal explanations for bad events were extracted and rated for internality, stability and globality. These explanations were consistent with the corresponding scales of ASQ and the subjects also completed the short form of BDI. It was observed that the ASQ scores correlated with the depressive symptoms. Besides, when ratings of the extracted explanations were averaged
across different causes offered by the same individual, these scores also correlated with depressive symptoms.

Rezley (1978) wanted to assess the attributions of depressed and non-depressed students for their success or failure on a cognitive task. He assessed, in his study, that depressed students attributed failure to incompetence (internal, global and stable explanations) and success to ease of the task (external, specific and unstable explanations). The non-depressed students, on the other hand, attributed failure to task difficulty (external, specific and unstable factors) and success to their ability (internal, global and stable factors).

Kuiper (1978) replicated the study of Rezley (1978). He found that contrary to the expectation, depressives tended to make internal attributions for successful outcomes. The author suggested that depressives may have a more general tendency to assume responsibility for outcomes regardless of their hedonic valence.

Few more studies provide further support for the reformulated model of helplessness and depression though somewhat indirectly. Hammen and Krantz (1976) examined the cognitive distortions of depressed and non-depressed women, using a multiple choice, story completion questionnaire. Results indicated that depressed women, on the other hand, selected more of non-depressed, nondistorted cognitions. The depressed distortions tended to be consistent with
the more internal. Stable and global attributions for failure as noted in other studies.

Garber and Hollon (1980) found that in skill tasks, depressed subjects exhibited small expectancy changes while estimating the probability of their own success but did not exhibit small expectancy changes when estimated the probability of other subject's success. The study, in general, suggested that the depressives believe that they themselves lack ability for the skill task (personal helplessness) although they believe that others may have the ability for the same.

The studies described so far, directly or indirectly support the prediction that depression is accompanied by internal, stable and global attributions. However, these studies employed somewhat restricted samples; the upper middle class human beings, who are, in general, not seriously depressed. Therefore, the investigations were extended to lower class women, children and psychiatric patients.

Naverva, A. (1981, unpublished report) conducted a study on lower class women. The investigator asked his women subjects, taken from lower socio-economic class, to respond to the ASQ and BDI. In an interview format, they answered the questions of the ASQ and the long form of the BDI. The study revealed, as in case of other studies, that internal, stable and global attributions were associated with depression. This study establishes
some generality of the depressive explanatory style across different socio-economic levels.

Seligman and Peterson (1981, unpublished manuscript) conducted a study in which they wanted to see whether explanatory style correlates with depressive symptoms among children in the same pattern as among adults. The study was also pertinent to the question of whether children can suffer depression at all. The investigators used children's depressive inventory (CDI) (Movacs & Beck, 1977) and Children's Attributional Style Questionnaire (CASQ) (Seligman & Peterson, 1981) for the purpose. The study broadened the empirical base of the depressive explanatory style by showing it among children (aging 9 to 13 years old). It was added to the evidence that childhood depression is a coherent syndrome similar to depression observed in adults, not only at the symptom level, but also in terms of explanatory style.

Few studies were conducted taking depressive patients as subjects that has further supported the reformulated model of helplessness and depression. In one study, (Peterson, Reinhand & Seligman, 1983.) ASQ was administered to Unipolar depressive patients, non-depressed schizophrenic patients and non-depressed medical and surgical patients. The psychiatric patients satisfied definite diagnosis of primary affective disorder. The results also indicated that the depressives explained bad events with more internal, stable and global causes. These results confirm the association between explanatory style for bad events and
Two more studies were also conducted that exhibited a high correlation of ASQ with depressive symptom in severe unipolar depressed patients. Eaves and Rush (1982, unpublished manuscript) compared 31 unipolar female depressive patients with age, sex and education matched control group of 17 people. The effects were striking. All depressed patients differed from the control group significantly in terms of explanations for bad events. The data obtained, also suggested that stability for bad events reflects and may predict how long a depressive episode will last.

Another study of unipolar depressed patients was conducted by Parsons and Rao (1982, unpublished manuscript). 49 patients were given D.S.M. III diagnoses (American Psychological Association, 1980,) and completed the ASQ as well as other measures. Upon admission, the internality score for bad events correlated .60 with BDI, the globality score for bad events correlated -.53 while the stability score for bad events did not correlate significantly with the BDI. 34 of these patients were followed through discharge and changes in explanatory style and BDI scores were measured. Explanatory style change over therapy (Largely chemical), accounted, for 49% of total change in depression. This was the most powerful psychological variable correlated with change in depression.

Overall, the above three studies show that severely depressed patients have an insidious explanatory style characterised by
by internal, stable and global explanations for bad events. This style is found to be continuous with mild depressives. Besides, explanatory style is an index of depression that is both sensitive and specific. Finally, changing explanatory style is a good correlate and may be a good predictor of changing depression. This last finding is particularly suggestive for therapy.

The reformulated hypothesis also stated that explanatory style is a risk factor for depression. To be a cause, it must occur before the occurrence of depressive symptoms. Cross sectional studies are momentary and hence are not able to address this prediction. However, several longitudinal investigations have been conducted in which explanatory style was assessed at one time, and consequences at a later time.

Peterson and Seligman (1983) conducted a longitudinal study in which they used the composites of the individual subscales of CASQ. As predicted by the reformulation, the depressive explanatory style for bad events was correlated with subsequent depressive symptoms, even when the initial CDI scores were partialled out. Composite style for good events did not predict subsequent depression. Hence explanatory style for bad events may be a risk factor for depression among children.

Several recently completed studies using adults, also address the risk factor question. Golin, Sweeney and Schaeffar (1931) administered measures of both explanatory style and depressive
symptoms at two times. Then they employed cross lagged panel correlational analysis to see if explanatory style preceded depression. Both of the studies provided support to the strong claim that explanations affect depression to a greater extent compared to depression affecting explanation. However, neither of the above mentioned studies supported the opposite conclusion that level of depression affected subsequent causal explanation.

O'Hara, Rehm and Campbell (1982) administered the ASQ to 170 women in their second trimester of pregnancy. The strongest predictor of level of depression three months post-partum was explanatory style for bad events, which was significantly correlated with BDI scores even when pre-partum level of depression was held constant.

A general flaw in the above mentioned studies is that they did not assess the bad events. Depressive explanatory style per se is not sufficient for depression (Abramson, et al. 1978). Only when the bad events occur and are interpreted in terms of internal, stable and global causes, that depressive symptoms are more likely to ensue. The ideal way, then to test helplessness reformulation is to measure the explanatory style of individuals and then choose at random half of these individuals to experience some important bad events. This can be done in quasi-experimental method in which naturally occurring bad events are the 'manipulation'.
Metalsky, Abramson, Seligman, Semmel and Peterson (1982) conducted a naturalistic study of college students and their reactions to a low grade on a mid term examination. According to helplessness reformulation, students who habitually explain bad events in terms of internal stable and global factors, are more likely to react with depression upon learning that they received a low grade than students who tend to explain bad events in terms of external, unstable and specific factors.

The subjects were undergraduates in a psychology course, who completed the questionnaires during class time. At time one, they took the ASQ and a questionnaire about their aspirations for the class mid term. Students indicated the grades with which they would be happy or unhappy. At time two, eleven days later, just prior to the mid term examination, students' level of depressed mood was assessed with MAACL. At time three, another five days later, immediately following receipt of the mid term grade, students again completed the MAACL. The results indicated that internality and globality for bad events predicted increases in depressed mood for students receiving high grades. Additional correlational analysis revealed that explanatory style was independent of the actual grade received and of grade aspirations.

The above prospective study exhibited that explanatory style, in conjunction with a bad event, resulted in a depressive mood reaction as predicted by the helplessness reformulation. Supportive
evidences are also available from another naturalistic study mentioned below.

Peterson, Nutter and Seligman (1982) conducted a naturalistic investigation taking prisoners as subjects. It is a fact that for most prisoners, imprisonment is a bad event. The investigators expected that a common reaction to imprisonment is depression. They also predicted that prisoners with depressive explanatory style are likely to become depressed after internment. The investigators in their study, asked the prisoners, upon imprisonment, to complete the ASQ and shortly before release, the same prisoners completed the BDI. It was revealed that the depressive symptoms of the prisoners, at the end of the imprisonment, were strongly associated with their explanatory style at the beginning of imprisonment. Thus, as expected, internal, stable and global explanations for bad events were positively correlated with depressive symptoms. But the surprise was that internal, stable and global explanations for good events were also positively correlated with depressive symptoms.

That explanatory style for good events predicted depression in the same way as did the explanatory style for bad events is an intriguing finding. Most other studies revealed that these styles had opposite effects. However, future work with a variety of samples, may throw light to resolve the discrepancy.

Another line of evidence for helplessness reformulation comes from investigation on real individual lives. It converges
on the proposition that explanatory style is a risk factor for depressive symptoms. One major drawback for studying explanatory style on the laboratory or in natural settings is the obtrusive and reactive nature of the questionnaires. Therefore, attempts were made to study natural explanatory style and depression using the method of content analysis.

Peterson and Seligman (1981) conducted an investigation in which causal explanation for bad events were extracted from 300 word segments from verbatim transcripts of individual psychotherapy sessions at the beginning, middle and ending of successful psychotherapy with four patients suffering depression following a loss. The investigators rated these explanations for internality, stability and globality and averaged the scores across explanations offered within the same session. It was noticed that for each patient, explanatory style perfectly ordered the three sessions; the most internal, stable and global explanations were offered in the beginning session when depression was higher.

Peterson, Lubersky and Seligman, in another study, used the symptom context method, a content analytic approach to investigate the explanatory antecedents of mood swings by a single patient during psychotherapy sessions. The context was causal explanations for bad events and the symptoms were mood swings in and out of depression during therapy sessions.
The patient was exposed to the psychotherapeutic treatment for four years. Over the course of treatment, the patient improved and the depression become relatively mild. However, the findings indicated that highly internal stable and global causal explanations preceeded depression; where as much more external, unstable and specific statements preceeded decreased depression.

The above two studies show that individual clinical cases may be usefully viewed within the framework of the helplessness reformulation. In both of the studies, content analysis technique was used to predict the sequence of explanatory style earlier in life.

**Disease Susceptibility**

According to Peterson and Seligman (1987) explanatory style is an individual difference that influences people's response to bad events. A pessimistic explanatory style makes illness more likely. Several studies suggest that people who offer internal, stable and global explanations for bad events are at increased risk for morbidity and mortality. The authors tentatively conclude that passivity, pessimism and low morale foreshadow disease and death although the process by which this occurs is not clear.

Several studies have addressed the relation between helplessness and illness. Engel (1971) studied 170 cases of stress induced
death. In many instances, the particular stress involved loss of control: (a) collapse or death of a loved one, (b) acute grief, (c) threatened loss of a loved one, and (d) loss of status and self-esteem. Death by heart failure was the usual cause implicating helplessness.

Voodoo death is another type of fatality with possible parallels to learned helplessness. If a person believes himself or herself to be cursed, and that there is no escape from his fate, he or she may die within a matter of hours or days (Cannon, 1942). In the meantime, the individual is passive, submissive and hopeless. (Burnell, 1963).

In discussing the similarity between such instances of death and helplessness, Seligman (1975) acknowledged that uncontrollability can foreshadow death. Several experimental studies with animals have supported this association in the seventies.

Sklar and Anisman (1979) showed that cancerous tumours grew more rapidly in mice exposed to inescapable shock than in mice exposed to escapable shock or to no shock at all. These results were extended by Visintainer, Volpioelli, and Seligman (1982) who studied tumour rejection by rats. Relative to escapably shocked rats and unshocked rats, animals unable to escape shocks were one-half as likely to reject tumours and twice as likely to die.
In another investigation, Laudenslager, Ryan, Drugan, Hyson and Mayer (1983) showed that uncontrollable shocks disrupted lymphocyte proliferation in rats to a greater degree than controllable shocks. Therefore, uncontrollability may lead to illness and death by interfering with the immune system (Jemmott & Locke, 1984).

The relationship between uncontrollability and disease was quickly generalized to human subjects and investigators started showing supportive evidences. In an well-known study of Langer and Rudin (1976) one-half of the elderly residents of a nursing home were assigned to an experimental condition where their sense of control was enhanced. They were told by their nursing home personnel that taking care of themselves was their own responsibility and that changing things was within their power. They were given choices to make: which plant to choose for their room, when to see a movie, and so on. The other one-half of the nursing home residents were designed to a comparison condition with none of these interventions. Instead, they were merely told that they would be well treated and that they should be happy.

Several weeks later, individuals in the two groups were compared with respect to happiness, activity, alertness and health. On all of these measures, control scored higher, even though there had been no differences between these groups before the interventions. Eighteen months later, Rodin and Langer (1977)
found an even more striking difference between the two groups. Where 15% of the residents in the enhanced control condition had died; the figure grew to 30% of the residents in the comparison condition.

Another investigation of control and illness was reported by Suls and Mullen (1981) these researchers assessed successful life events occurring to 119 college students during a three month period. For each life event reported, a subject indicated whether it was desirable or undesirable and whether it was controllable or uncontrollable. The authors also assessed the degree of illness in the following month. It was revealed that undesirable and uncontrollable life events were positively correlated with illness. Events that were undesirable only or uncontrollable only, or neither, did not link illness. Again subjects were given the option of saying that a particular life event was of uncertain uncontrollability. These sorts of events, when undesirable, were also positively correlated with illness and to a greater degree than undesirable events of certain uncontrollability.

Another study was conducted by Raps, Jonas, Peterson and Seligman (1982) which is relevant. The authors studied patient behaviour in hospitals. Forty eight in-patients hospitalized for one, three or nine weeks and 24 out-patients were tested on cognitive tasks; poor performance and depressive symptoms increased with length of hospitalization, even as illness resolved. Further,
increased hospitalization made patients more susceptible to the debilitating effect of uncontrollable events. Taken together, these results imply that the passive, compliant and inanimate behaviour of the "good patient" may be the result of learned helplessness endangered by hospitalization.

In sum, the studies reviewed above suggest that uncontrollability and helplessness are associated with increased passivity, morbidity and mortality - Peterson and Seligman (1987) conducted a set of studies that strengthen the argument that learned helplessness is involved in illness. The authors have correlated explanatory style assessed by the ASQ or with the CAVE (Content Analysis of Verbatim Explanations) technique.

The authors studied 94 members of the Baseball Hall of Fame whose playing career occurred between 1900 and 1950 and deployed the CAVE technique against verbatim quotes of the players reported in the sports pages. Three independent and blind judges rated each of the quotes for internality, stability, and globality. 24 of these players were quoted enough for the authors to extract two or more event explanation units for good events. 30 gave two or more explanation for bad events. About a half of them were dead in 1984. Composite scores were formed for good events and bad events (collapsing across internality, stability and globality and then across the different explanations), and correlated these scores with age at death or age in 1984.

The results indicated that to the extent a player offered internal, stable and global explanations for bad events, he lived,
a shorter life. If he offered external, unstable and specific explanations for good events, he also lived a shorter life.

Peterson and Seligman (1987) have also used the CAVE technique to assess explanatory style from open ended questions completed by the Grant study subjects (A still-ongoing longitudinal study was endowed by philanthropist William T-Grant in 1937 to study "the kinds of people who are well and do well" (Vaillant, 1977, p.3). The Grant study began with a non-representative sample of the brightest and the most fit members of the classes of 1939 through 1944 at a highly prestigious American University.

Two hundred and sixty eight independent and healthy young men were chosen for the study. Each subject was given an extensive physical examination and completed a battery of personality and intelligence tests. Each subject was individually interviewed by a psychiatrist. The interview focused on the subject's family, career-plans and values. After graduation the subjects completed annual questionnaires about employment, family, health and soon. It was observed that attribution from the study has been nil, except for death (Vaillant, 1977). But like the Hall of fame baseball players, all subjects began as highly successful and healthy individuals, decreasing the likelihood that possible third variables might account for correlations between early explanatory style and later illness. The authors (Peterson & Seligman, 1987) also assessed explanatory style for eighteen men from their responses to a questionnaire completed in 1946 asking
about difficult experiences in world war two. Composite explanatory style for bad events was correlated with different health ratings. These ratings include: (a) healthy, (b) minor health problems, (c) chronic illness, (d) disabled, and (e) dead.

Internal stable and global explanatory style was positively correlated with this rating. The result is consistent with the results of the Hall of fame study.

From the above two studies the authors have concluded that explanatory style seems related to morbidity and mortality. Further, the CAVE technique has considerable promise for this kind of investigation because it allows longitudinal studies to be conducted retrospectively.

The authors (Peterson & Seligman, 1987) conducted another investigation to know whether explanatory style predicts illness. The research began in 1934 with 172 introductory psychology students who completed a 24 item version of the ASQ and were followed for a year. Degree of illness was ascertained in 2 ways: (a) self report of symptoms, and (b) number of doctor visits.

Illness was measured by asking subjects to list all of the illnesses experienced during the past thirty days. Degree of illness was operationalized as the number of different days during the month that at least one symptom was present.

At time two, approximately one month later, subjects again completed the illness measure. Finally at time three, approximately
one year later, the subjects asked to report the number of visits they made to a doctor for diagnosis and/or treatment of an illness during the past year.

Results indicated that explanatory style predicted illness at both times 2 and 3. However, only the stability and globality dimension proved critical. Internality was not associated with subsequent illness. Again the relationship between stable and global explanatory style and subsequent illness held even when time one illness and time two illness were partialled out.

Of the subjects reporting illness, at time two, 95% described colds, sore throats, or flues. One or two individuals reported either of pneumonea, ear infection, venereal disease and mononucleosis. All of the illnesses were infections.

The authors further conclude that explanatory style is related to subsequent illness and that this relationship is not produced by the confounds of prior illness or prior depression. Again the dimensions of stability and globality drive this relationship.

In still another longitudinal study(A 35 year longitudinal investigation). Peterson, Seligman and Valliant (1987) extracted explanatory style from open ended questionnaires filled out by 99 graduates of the Harvard University classes of 1942-1944 at age 25. Physical health from ages 30 to 60 as measured by physician examination was related to earlier explanatory style. Pessimistic explanatory style (the belief that bad events are caused by stable, global and internal factors) predicted poor health at ages 45 through 66 even when physical and mental health
at age 25 were controlled. The authors conclude that the person who habitually explains bad events by stable, global and internal causes in early adulthood, is at risk for poor health in middle age and late adulthood.

The above studies show that an explanatory style is a reliable independent predictor of later health. In particular, a pessimistic outlook is associated with future illness, poor health status and a shorter life. Of course, these findings demonstrate a relationship between pessimism and increased morbidity. But the mechanism by which explanatory style impacts on health is still unknown.

A number of research work has already been conducted in the last two decades to predict psychological recovery of victims of tragic events. Quite a few studies have focussed on affective reactions (Shontz 1975; Weller & Miller, 1977; Wortman & Brehm, 1975), coping strategies (Goldiamond, 1975; Lazarus, 1966) behavioural consequences like learned helplessness (Abranson et al. 1978; Miller & Norman, 1979), and causal beliefs (Bulman & Wortman, 1977; Thompson, 1982). Those studies, taken together, reveal lack of consensus about the predictor of reactions to tragic events. Thus, in spite of many systematic attempts none has revealed the factors that influence our reactions to tragic outcomes (see Taylor, 1983; 1161). Further, the role of beliefs about self, causality and personal control in the recovery process have not been sufficiently
understood. Many of these beliefs are based on specific socio-cultural context like "karma" that is widely accepted in Hinduism as an explanation of many tragic happening in one's life. Dalal A.K. and Pande, N. (1988) have attempted to examine the role of such causal beliefs in the psychological recovery of temporarily and permanently disabled accident victims.

Patients (N=41) from a Government hospital and private nursing homes in Allahabad City, India, were interviewed one week and three weeks after the accident. The doctor's report of their recovery was also obtained each time. The permanently disabled patients were found less motivated to search for the causes of the tragic event. When asked to make attribution, the permanently disabled attributed the accident more to external factors than those who were temporarily disabled, Chance and God's will were the causes more frequently mentioned. Attributions to 'karma' and God's will were significantly correlated with psychological recovery. The sense of personal control was not found to be a good index of psychological recovery. Number of complaints made by the patients and their depressive symptoms, as observed by the doctors negatively correlated with the psychological recovery.

Recently some investigators have looked into the effects of helplessness as susceptibility to cancer. Harnis Dienstfrey (1983) in a series of experiments on rats observed that (1) lack of control in a painful experience led to helplessness and also
increased vulnerability to cancer. (2) Further, the rats that had learned mastery early, responded to adult stress situation in a significantly different manner compared to rats that had learned helplessness later. (3) Upon administration of tumour cells, 70% of helpless rats developed tumour. The author concluded that the rats' early experience determined how they would face challenges as adults.

Several studies on human beings have shown a link between cancer and a sense of loss or helplessness. Horne and Picard (1979) (see American Health, 1983) interviewed 130 men with undiagnosed lung problems and tried to predict which ones had cancer. The amount of loss they experienced was just as good as a predictor of lung cancer, as cigarettes smoked for day (see American Health, 1983).

Similarly Schmale and Iker interviewed women coming for a cervical biopsy after an abnormal papsmear. The authors predicted that those who reported feelings of hopelessness caused by recent events would turn out to have cervical cancer. Results indicated that 11 out of 18 women did have cancer and 25 of the 33 who were not hopeless did not have cancer.

Studies supporting the impact of early experience on development of cancer in later in life, though not sufficient, at least provides some evidence that childhood experiences can affect cancer susceptibility in people.
In an especially ambitious study, Dr. Caroline Bedell Thomas and her colleagues surveyed 1,337 medical students who were graduated between 1948 and 1964. The researchers then followed them for years to see how psychological tests at graduation predicted later health. The findings showed, among other things, that early family conflicts put people at higher risk of cancer.

The link between helplessness and poor immunity has also been shown in human studies. Studies in the past decade have revealed that helplessness to prevent an irrecoverable loss can set the immune system awry, i.e., make people vulnerable to disease. The aim of research has been to identify the precise physiological effects of stress.

**Intellectual Impairment**

Research has shown that disparate responses to failure are associated with different constellations of achievement cognitions like learned helplessness and mastery orientation. Learned helplessness indicates a perception of response-outcome independence (Seligman & Maier, 1967). This implies that in achievement situations, helpless children would be characterised by cognitions that imply the inevitability and insurmountability of failure, whereas mastery oriented children would be characterised by cognitions that imply that their successes are replicable and their mistakes rectifiable.
Diener and Dweck (1978) employed a procedure that would enable children to tell them what their cognitions were as they occurred. In two studies, the sophistication of problem solving strategies was monitored as children performed a discrimination-learning task and went from success to failure. Both studies showed a rapid and marked decline in the maturity of helpless children's strategies with the onset of failure. Mastery oriented children not only were able to maintain mature strategies over the failure trials, but a number of them actually began using more sophisticated strategies over the course of the failure trials. In the second of the two otherwise identical studies, the children were asked to verbalise aloud as they performed the task. The instructions gave them license to reveal any of their thoughts, task relevant or not as they did.

The analysis of the results indicated that the helpless and mastery oriented children differ quite markedly in the constellation of achievement cognitions they entertain when they encounter difficulties. When failures occur, the cognitions of the helpless children reflect their tendency to dwell on the present to dwell on the negative and to seek an escape from the situation. The cognitions of the mastery oriented children reflect their tendency to look forward the future, to emphasise the positive and to invest their energies in actively pursuing solution-relevant strategies.

A number of findings have also suggested that the cognitions of helpless and mastery oriented children might differ. (Diener &
Dweck, 1978; Dweck, 1975; Dweck & Reppuchi, 1973). For example, the verbalizations offered by the helpless children in the study mentioned above, implied either that their prior successes were forgotten or that they considered them to be irrelevant to their future successes. In contrast, the statements made by mastery oriented children implied that their successes remained quite salient to them that these successes documented their capabilities on the task and hence their ability to attain success once again. Dweck (1975) has shown that extensive success did little to prevent debilitation when helpless children subsequently confronted failure. Helpless children acknowledge neither the extent nor the positive implications of their successes.

Diener and Dweck (1978) replicated their original study (without verbalizations), but asked children to make a series of judgements about their performance either just after a series of success or after subsequent failures. Helpless children seemed to seize all the available ways of disconnecting their success. After success, compared to mastery oriented children, helpless children underestimated the number of problems they had solved, were less likely to attribute their success to ability, and tended to think that other children are better performers even though they solved every problem correctly. They also predicted poor future performance. It seemed they did not experience "success" at all. After failure, they also overestimated the number of problems they failed to solve.
The mastery-oriented, on the otherhand, accurately recalled the number of successes, thought they were doing better than other children, reflected ability and expected their success to continue unabated. Also failure prompted little revision of their optimism.

For disparate patterns of response to failure, one can predict that in the face of new academic material, having high difficulty level and high confusion, helpless children will perform poorly and the mastery-oriented will be at their best. So decrements in learning and performance of the helpless children is expected when a subject area undergoes a major shift requiring mastery of newer concepts and skills.

According to Dweck and Licht, 1980), Mathematics, taught in late elementary schools and beyond, new elements repeatedly confront one with new concepts and new operations. In contrast, most verbal areas appear to have fewer abrupt transitions. Thus, while helpless children would be expected to perform up to their abilities in verbal areas, their achievement orientations may be less well matched to the acquisition demands of Mathematics. Mastery-oriented children, on the otherhand, might be expected to perform their best when confronting the challenges of Mathematics (see Dweck & Licht, 1980.).

Dweek and Licht (1984) conducted a study to test the hypothesis that children's achievement orientations (helpless vr. mastery-oriented) would interact with the acquisition demands of academic material
(i.e., the presence or absence of confusing concepts in the initial stages of learning) to determine children's performance. It is proposed that certain academic areas (e.g., Mathematics) are more likely than others (e.g., verbal) to pose difficulties at the start of new units. It is then hypothesised that the necessity of surmounting difficulties favours certain achievement orientations. The study simulated these subject matter differences and produced effects consistent with this analysis. When the learning task contained somewhat confusing material in the initial sections, the attributional style of the "mastery-oriented" significantly out performed those of the "helpless". However, when the identical task was presented without the confusing material, both groups learned with equal facility, the results support the notion that achievement differences can result from the fit between children's achievement orientations and the demands of particular skill areas.

Studies described above, in short, point out that helpless children exhibited negative self cognitions, negative affect and impaired performance whereas mastery-oriented children exhibited constructive self-instructions and self-monitoring, a positive pragnosis, positive affect and effective problem-solving strategies. Despite the fact that they have received identical tasks and earned identical task outcomes, helpless and mastery-oriented children processed and responded to the situation in entirely different ways.

Although such patterns were first identified in research with children, they have been well-documented in adults as well
Moreover, although the patterns were first investigated in laboratory settings, they have been shown to operate in natural settings. A study by Licht and Dweck (1984) provides a clear demonstration.

In this study, children were taught the principles of operant conditioning in their class rooms by means of programmed instruction booklets. For all children, all irrelevant passage (on imitation) was inserted near the beginning of their instructional booklet. For half of the children, this passage, although irrelevant to the principles to be learnt, was clear and straightforward. For the other half, the passage was rather tortuous and confusing. The question was whether helpless and mastery-oriented children (as defined in this study) by their attributional tendencies would show differential mastery of the material in the noconfusion and confusion conditions; that is whether difficulty in the irrelevant passage would impair helpless children's subsequent learning. The results indicated that in the no confusion group, the mastery-oriented and the helpless children were equally likely to master the material. But a clear difference emerged in the confusion condition. Most of the mastery-oriented children (71.9%) reached the learning criterion whereas only 34.6% of the helpless children ever mastered the material.

Thus, with real material and real word setting, the mastery-oriented and helpless patterns were shown to be associated with
effective versus ineffective functioning in the face of difficulty. To conclude, the research suggests that helpless individuals appear to focus on this ability and its adequacy or inadequacy and mastery-oriented ones appear to focus on mastery through strategy and effort. Again, helpless ones appear to view challenging problems as a threat to their self-esteem. Mastery-oriented ones appear to view them as opportunities for learning something new.

In view of different ways of perceiving identical situations, Elliot and Dweck (1988) hypothesised that helpless and mastery oriented individuals might be pursuing very different goals. Helpless children might be pursuing performance goals, in which they seek to establish the adequacy of their ability and to avoid giving evidence of its inadequacy. In other words, they may view achievement situations as tests or measures of competence and may seek to be judged competent and not competent. Mastery-oriented individuals, in contrast, might be pursuing learning goals. They may tend to view achievement situations as opportunities to increase their competence and may pursue the goal of acquiring new skills or extending their mastery.

To test the hypothesis, the authors simultaneously manipulated subjects (a) goals by orienting them more toward evaluations of ability or move towards the value of the skill to be learnt and (b) assessments of their present ability level (via feedback on a pretest). To test the effect of the goal orienting manipulation
on subjects actual goal choices, children were then asked to choose one task from an array of tasks that embodied either a learning or performance goal. The learning goal task was described as enabling skill acquisition, but as entailing a high risk of negative ability judgement. In contrast, the performance goal options allowed children to obtain a favourable ability judgement or to avoid an unfavourable judgement, but did not afford any opportunity for learning. Following this choice, all children were given the Diener and Dweck concept formation task. As in case of the Diener and Dweck study, children were requested to verbalize as they worked on the problems, and verbalizations and strategies were monitored and categorized.

The results indicated that when children were oriented towards skill acquisition, their assessment of present ability was largely irrelevant. They chose the challenging learning task and displayed a mastery-oriented pattern. But when children were oriented toward evaluation, the task they adopted and the achievement pattern they displayed (mastery-oriented or helpless) were highly dependent on their perceived ability, children who perceived their ability to be high, selected the challenging performance tasks, allowing them to obtain judgements of competence. On the other hand, children who perceived their ability to be low, selected easier tasks that would permit them to avoid judgements of incompetence. Similar results were obtained by Ames 1984;
Bandura and Dweck, 1985; and Leggett and Dweck, 1986. Moreover, a recent study by Farrell and Dweck (1985) provides evidence that individual's goal preferences provide patterns of learning in real world settings.

Recent research (Leggett & Dweck, 1986) has shown another potentially informative event - one's input or effort expenditure - will also be interpreted in line with the differing goal concerns as indicative of ability versus a means of achieving learning or mastery. The authors measured eighth grader's goal preferences and devised a questionnaire to assess their interpretation of effort information. The result indicated that those with performance goals, used effort as an index of high or low ability. Specifically, they viewed effort and ability as inversely related: high effort implies low ability and low effort implies high ability. But in contrast, those with learning goals, were more likely to view effort as a means of strategy to activate or manifest their ability or mastery. Here, effort and ability are seen as positively related. Thus within a learning goal, high effort would represent a mastery strategy and signifies that one is harnessing one's resources for mastery.

Thus, children with different goals, appear to use very different inference rules to process effort information (Jagodziński & Nichollas, 1983). This research suggests how use of the inverse rule by individuals with performance goals can contribute to their helpless pattern of attributing high effort failures to low ability.
(and of doubting their ability after high effort success; see Diener & Dweck, 1980). It also shows, in contrast, how use of the positive rule by those with learning goals can contribute to their mastery-oriented tendency to focus on effort, when challenged.

In summary, performance goals create a context in which outcomes (such as failures) and input (such as high effort) are interpreted in terms of their implications for ability and its adequacy. In contrast, learning goals create a context in which the same outcomes and input provide information about the effectiveness of one's learning and mastery strategies.

Research has clearly documented adaptive and maladaptive patterns of achievement behavior. The adaptive (mastery-oriented) pattern is characterized by challenge seeking and high effective persistence in the face of obstacles. Children displaying this pattern appear to enjoy exerting effort in the pursuit of task mastery. In contrast, the maladaptive (helpless) pattern is characterized by challenge avoidance and low persistence in the face of difficulty. Children displaying this pattern tend to evidence negative affect (such as anxiety) and negative self cognition upon confronting obstacles (Diener & Dweck, 1978, 1980).

With increase in age, children make increasingly consequential decisions, and maladaptive patterns may begin to impair their achievement and constrict their future choices. Maladaptive patterns such as those displayed by bright girls may even fail to
foster intellectual growth in general. In a 38-year longitudinal study of I.Q. change, measured at mean ages of 4.1, 13.8, 29.7, and 41.6, Kangas and Bradway, (1971) found that for males, the higher the pre-adult level, the more they gained in later years; whereas for females the higher the pre-adult level, the less they gained in later years. In fact, of the six groups in the study, males and females with high, medium and low pre-adult I.Qs all exhibited surprisingly large gains over the years except the high I.Q. females who showed little gain. The study in general suggested that bright females, compared to bright males, are not thriving and appropriate motivational interventions may prevent some of the achievement discrepancies between the sexes.

**Coping With Old Age**

A good number of research work suggest that the combined effect of many deficits encountered by individuals in their old age induces feelings of lack of control and helplessness. Large quantity of correlational research document that lack of personal autonomy may account for some of the negative effects observed among the aged in general and the institutionalized aged in particular. (Schulz, 1976; Schulz, 1978; Sultz & Brenner, 1977). Sultz (1976) hypothesised that some of the characteristics frequently observed among the institutionalised aged such as feelings of depression and helplessness as well as accelerated physical decline, are at least, in part attributable to loss of control in environmental predictability. The authors in a field
investigation observed that predictable positive events have a powerful positive impact upon the well-being of the institutionalized aged. In a similar experiment Langer and Rodin (1976) revealed that elderly nursing home residents, in the responsibility induced group became more active and happier compared to the group of residents who were encouraged to feel that the staff would take care of them and try to make them happy.

The observations mentioned above are consistent with an attributional analysis of helplessness theory as proposed by Abramson, Seligman and Teasdale (1979). Though there is no direct evidence indicating attributional style, it is likely that the intervention used by Langer and Rodin altered subject's self-attributions regarding their ability to control outcomes in an institutional environment. Specifically, the communications delivered to the experimental group emphasizing their responsibility for themselves and their outcomes probably encouraged subjects to make internal, stable and global attributions.

The foregoing discussion on the consequences of helplessness brings out several salient features. It is suggested that helplessness induces certain specific cognitions which hinder adjustment process. The way failure is interpreted influences adjustment process. The examinations of differing cognitions both at the school setting and institutional setting indicates the role of perception of control.

It is also plausible that these differing cognitions play important role in the context of the life span development. There
are not many studies that deal with comparison of adolescents with respect to their coping and adjustment in the context of helplessness syndrome. Although the present investigation is geared to formulate certain hypotheses relating to helpless adolescents vis-à-vis competent adolescents, psycho-social dimensions of stress and coping need to be elaborated.

**Stress and Coping**

Stress is conceptualized as a process that involves recognition of and response to threat or danger. Coping, on the other hand is a central part of this process includes avert and covert responses to threat or danger usually directed toward overall reduction of stress. It is also defined as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and as endangering his or her well-being. While there are numerous approaches the study of stress, Lazarus and Folkman's (1984b) comprehensive view of stress and coping represents an integrative perspective.

A cognitive theory of psychological stress and coping (Lazarus & Folkman, 1984b) is transactional in that the person and the environment are viewed as being in a dynamic, mutually reciprocal, bi-directional relationship. The theory identifies two processes, cognitive appraisal and coping, as critical mediators of stressful person-environment relationship and their immediate and long term outcomes.
Cognitive appraisal is a process through which the person evaluates whether a particular encounter with the environment is relevant to his or her well-being and if so, in what way. Two kinds of cognitive appraisal are identified: primary and secondary. In primary appraisal, the person evaluates whether he or she has anything at stake in his encounter. For example, is there potential harm or benefit to self esteem? A range of personality characteristics such as values, commitments, goals and benefits about oneself and the world helps to define the stakes that the person identifies. In secondary appraisal, the person evaluates what, if anything, can be done to overcome or prevent harm or to improve the prospects for benefit. Various coping options are evaluated, such as changing the situation, accepting it, seeking more information, or holding back from acting impulsively.

**Forms of Coping**

Coping is defined as the person's constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources (Lazarus & Folkman, 1984b). It has two major functions: dealing with the problem that causes the distress (problem-focused coping) and regulating emotion (emotion focused coping). (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984b). Earlier research (Folkman & Lazarus, 1980, 1985) and indicated that people use both forms of coping in virtually every type of
stressful encounter. Both forms of coping were represented in over 98\% of the stressful encounters reported by middle aged men and women and in an average of 96\% of the self reports of how college students coped with a stressful encounter.

Although most stressors elicit both forms of coping, problem focussed coping tends to predominate when people feel that something constructive can be done. Emotion focussed coping, on the other hand, predominate when people feel that the stressor is something that must be endured (Folkman & Lazarus, 1980).

Many researchers view factors other than problem focussed coping as variations on emotion-focussed coping. These factors often diverge quite sharply in character to the extent of being inversely correlated. Further, some emotion focussed responses involve denial, other involve positive interpretation of events. Still others involve seeking of social support. Problem focussed coping also involves several distinct activities. (Aldwin & Revenson, 1986) planning, taking direct action, seeking assistance, screening out other activities and so on. However, the choice of any pattern of coping is influenced by situational determinants as well as dispositional variables.

**Situational Determinants of Coping**

The study of the processes by which individuals cope with stress is a classic issue in personality research. Theoretical
work on coping and defense mechanisms can be traced to early psycho-analytic formulations (S. Frend, 1894-1962) and formed a major part of the 1930s and 1940s (A. Frend, 1936). This tradition has been updated by the recent work of Hann (1977) and Valliant (1977). Their ideas were formed in the clinical context and coping was just an unconscious defense process. The stressors to which it was applied were primarily intra-psychic conflicts.

In the 1960s, researchers turned their attention from coping to stress and began to look for variables that might moderate the stress-illness relationship. Current trend of research (Coelho, Hamberg & Adams, 1974; Moos, 1976) has conceived of the coping efforts as conscious responses to external stressors such as illness, divorce or bereavement rather than responses to unconscious conflicts. Here investigators objectively identify the stressor and the individual is asked directly to report what he or she does to cope with it. Under such new perspective, investigators tried to find out whether coping responses are determined primarily by the person, the situation or some interaction of these. Here, characteristics of the situation (rather than the person) are receiving greater significance, and therefore, the need for a taxonomy of situational variables of coping has become increasingly clear.

A number of studies have attempted to identify kinds of coping specifically related to particular events (Pearlin & Schoolar, 1978; Billings & Moos, 1981). They found that problem focused coping was used most in illness and least in dealing with death. Emotion focused coping was used particularly with
other non-interpersonal events.

Lazarus and Lannier, (1978) have maintained that the determining feature of response to a stressor is the individual's appraisal of the situation. They propose that an event can be constructed as a loss (or harm), a threat, or a challenge, and that it is the individual's interpretation of the event that prompts a particular set of coping reactions. A loss refers to damage that has already occurred, as in the death of a friend or an accidental injury. Threat, on the otherhand, refers to damage that is only apprehended. Challenges, though differ from threats in their general positive tone, require exceptional effort from the individual. Challenges are more likely in entrance events than exist events and are probably more often controllable. Stressors like threats and challenges tend to be chronic whereas losses are likely to be acute.

Stressors like losses, threats and challenges are characteristics of the relationship between individual and the environment. Occurrence of a particular appraisal probably depends upon, (a) the configuration of environmental events and (b) the persons beliefs about the potential for mastery (Lazarus & Launier, 1978). Alternatively these three classes might be considered objective attributes of stressful events.

Although there are many ways to classify coping responses (Moss & Billings, 1982.), most approaches distinguish between
active coping strategies oriented toward confronting the problem and avoidance coping strategies oriented toward entailing an effort to reduce tension by avoiding the problem (Billings & Moos, 1931).

Active coping strategies have been found to moderate the adverse effects of negative life events on psychological functioning (Billings & Moos, 1931; Pearlin & Schooler, 1978). Problem-focused coping is seen to be associated with reduced depression (Mitchell, Cronkite, & Moos, 1933). Coping strategies involving negotiations and optimistic comparisons is observed to reduce concurrent stress (Menaghan, 1982).

With regard to the health consequences of coping strategies, avoidance coping is seen to be positively linked with psychological distress (Billings & Moos, 1931). Kobasa (1982) found that lawyers who used more avoidance coping, showed more symptoms of psychological strain.

Menaghan explained that efforts to manage unpleasant feelings by resignation and withdrawal, increases distress and amplify future problems. To Holahan and Moos (1985) people adapted to stress with little physical or psychological strain show less avoidance coping than individuals showing psychological disfunction under stress.

**Dispositional Determinants of Coping**

Because different coping strategies are linked to psychological functioning, they need a fuller understanding of the personal and
environmental contexts in which they occur. Different dispositional determinants like socio-demographic factors, personal dispositional factors and contextual factors are seen to influence overall coping style of an individual (Holahan & Moos; 1987). Among these, the personal dispositional factors seem to be more relevant here considering its high association with the learned helplessness model (Seligman, 1975).

Several researchers have pointed out that self-confidence and the related dispositional factors like hardness, mastery and an internal locus of control appear to be linked to coping processes. Kobasa and his colleagues speculate a positive association between hardiness (Personality dispositions of commitment, control and challenge) and adaptive forms of coping. To Fleishman (1984) self efficacious persons are less likely to selectively ignore marital, parental and occupational stressors. According to Holhahan and Moos, (1985) persons having easy-going dispositions are more inclined to rely on active coping strategies and less likely to use avoidance coping.

Several writers have suggested that generalized beliefs about control and situational control appraisals are related to coping and persistence. For example, generalized expectancies of internal control are associated with exertion and persistence in achievement situations (Lef Court, 1976), likewise Bandura (1977) views that efficacy expectancies determine how much effort people will expend, and how long they will persist in the face
of obstacles and aversive experiences. The stronger the efficacy or mastery expectations, the more active is the effort.

Several other studies also suggest that control is related to the type of coping activity. In her studies, Strickland (1973) noted that people with internal locus of control (Rotter, 1966) are more likely to engage in an information search about disease and health maintenance compared to individuals having external locus of control when it is relevant to their well-being and in preventive behaviours such as wearing helmets and going to the dentist for check ups (Problem focussed coping). Anderson (1977) found that people with internal locus of control, as compared to externals, employed more problem focussed coping behaviours. Interestingly, Anderson also observed that internals, whose performance improved, become even more internal whereas externals who gave a poorer performance became more external. Such findings suggest that beliefs about control are reinforced by experience as is assumed by social learning theory (Bandura, 1977; Rotter, 1975).

However, even when experience does not reinforce internal control beliefs, an illusion of control (Langer, 1975) can be created through cognitive coping or reappraisal. For example, sometimes people take on responsibility (or blame) themselves for an event regardless of the circumstances. Such reappraisals lead them to believe that similar events can be prevented in the
future (Bulman & Wortman, 1977), thereby enabling them to feel more in control of future events.

Although findings suggest that a certain illusion may colour the appraisal, a little distorsion is of value. We may consider a situation where a stressful encounter is realistically appraised as uncontrollable. This is the condition employed by learned-helpless research to predict helplessness and depression (Seligman, 1975). Although helplessness, depression or both can occur as a response to uncontrollable events, according to the theory of stress and coping, the negative outcomes will occur only if reappraisal and cognitive coping do not alter the meaning of the situation to the person (Coyne, Aldwin & Lazarus, 1981). Recent study shows that depression is less likely when the person attributes responsibility to unstable person factors (behaviour or effort as opposed to character of ability). (Janoff-Bulman, 1979). These attributes lead to different evaluations of the significance of the event, for example, with respect to self-esteem. In a similar way, Lipowski (1970-71) identifies certain meanings that people attribute to illness that encourage active coping efforts as opposed to helplessness and passivity. For example, illness may be viewed as a challenge or an opportunity to expand personality through growth. In their review of studies, on coping with uncontrollable events, Silver and Wortman (1980a) show that people who discover something positive in a negative situation, show less distress
than those who do not. Similar findings were obtained by Goodhart (1980). All these attributions, in the language of stress and coping, constitute re-appraisals of emotion-focused cognitive coping.

Another way to transform the meaning of an uncontrollable encounter with respect to its significance for well-being (e.g., self-esteem recovery) is to abandon old goals and create new goals. A patient with spinal cord injury may generate a new goal of learning how to get around in a wheelchair. Such creation of new goals promotes positive morale and preserves the individual's general sense of control and self-esteem that facilitates realistic function (Rodin & Langer, 1977; Schulz, 1976). Thus re-appraisal and cognitive coping can prevent or reduce feelings of helplessness or depression and can promote challenge and hope even in the face of new demands and difficulties and a considerable degree of uncontrollability.

**Correlates of Coping**

A great deal of research has been conducted on the relation between social support, endurance under stress and psychiatric disturbances. Some claimed that absence of social support in a stress factor that may create psychological disturbances. A number of other studies show that subjects having a good deal of social support are less vulnerable to psychological disorders.
Social support is found to be related to favourable mental health following combat stress. Keane, Scott, Charoya Lamparski and Fairbank (1985) found that Vietnam Veterans suffering from P.T.S.D. (Post Traumatic Stress Disorder) reported a decline in social support from time of their discharge to the present. Hobtoll and Lendon (in press) found that exposure to war related stress led to emotional distress in the Veterans having low social support.

Some other researchers (Lef Court, Martin & Salch, 1984), suggested that there is a relation between Locus of control and effectiveness of social support people receive, they noticed that social support was more effective in mediating stress among people with internal locus of control than with those having external locus of control. They explain that people with internal locus of control use the social support more instrumentally and people with external locus of control use the social support less instrumentally.

Relations between coping, locus of control social support and combat related P.T.S.D. were examined by Soloman, Mienlincer and Avitzur (1988) with 262 Israeli soldiers following combat stress reaction episode during 1982 Lebanon War. Cross sectional analysis revealed significant relation between locus of control, coping, and social support and P.T.S.D.

Considerable research has focussed on depressed mood, ideation and behaviour as prototypical stress-related phenomena.
Compared to controls, depressed persons experience more stressful life change events in the period antecedent to the onset of depression. (Billings, Cronkite & Man, 1983). In a study of depressed women, Brown and Harris (1978b) found that higher rates of ongoing life difficulties and negative life events distinguished depressed patients from controls. A number of investigations have implicated the long term strain associated with social roles and daily living as an important component of the stressor domain.

The stress and coping paradigm point to social support factors as resources for managing stress and maintaining health. Several theorists (see Heller & Swiadle, 1982 for review) have noted the paucity of social support available to depressed persons.

There is some evidence that socio-demographic factors are related to coping responses. For example, people with low socio-economic status may use fewer active and preparatory coping responses and more fatalistic or avoidance coping responses than persons of higher S.E.S. do (Westbrook, 1979).

Studies also show potential sex differences in the role of stress and resource factors. There is some evidence that compared to men, women are more exposed to environmental stressors, have fewer supportive social resources and use less efficacious coping patterns (Billinge & Moos, 1981).
Social support is also conceptualized as moderating the relationship between stress and strain. La Rocco et al. (1980) have shown that social support has main effects of job-related strains, such as job dissatisfaction, but has buffering effects on health variables, including psychological and somatic variables.

Some other researchers (Shinn, Rosario, Morch & Chestnut, 1984), have investigated the effects of coping on psychological strain and "burn out" produced by job stress. Findings indicated that job stress was associated with high levels of strain and group coping with low levels, but individual responses had little effects. Workers used very few strategies to reduce stress and strain. The study revealed no sex difference so far as individual coping was concerned. But women reported more social support than men. No moderating effect of stress and coping on men was also noticed.

A few studies have reported stress in Academe. A cross cultural comparison between Israeli and American academicians by Keinan and Pearlberg (1987) have revealed that both Americans and the Israelis ranked the sources of stress similarly. The intensity of stress experienced by Israelis was reportedly lower than that of their American colleagues. The authors have explained the difference as a function of difference in cultural variables, nature of occupation and its demands and in emotional reciprocity and social support existing in both cultures.
That stressful circumstances may heighten vulnerability to infection is suggested by several studies. To underserved the connection between stress and infection, researchers in the emerging field of psychoneuroimmunology (Adar, 1981; Jemmott, 1985) have begun to study immunologic functioning in relation to stress.

Jemmott and Magloire (1988) have examined the relation of academic stress and social support to salivary concentrations of secretary immunoglobulin A (S-lgA), an antibody class that plays an important role in mucosal defense against acute upper respiratory tract infections. The students rated the University's general psychological climate as being more stressful during the examination period compared with two other periods (5 days before and 15 days after examination period). Paralleling this, their salivary concentrations of S-lgA were lower during the examination period. Students reporting more adequate social support at the pre-examination period had consistently higher S-lgA. This latter finding is consonant with the social support direct effects hypothesis which states that social support enhances health outcomes irrespective of whether the individual is exposed to stressful experiences or not.

Measurement of Coping

Interest in the process by which people cope with stress has grown dramatically over the past decade. The starting
point for much of the research is the conceptual analysis of stress and coping offered by Lazarus in 1966 who argued that stress consists of three processes. (a) Primary appraisal is the process of perceiving a threat to oneself, (b) Secondary appraisal is the process of bringing to mind a potential response to the threat and (c) coping is the process of executing that response.

Lazarus emphasised that these processes do not occur in an unbroken stream. The outcome of one may re-envoke a proceeding process. The entire set of processes may cycle repeatedly in a stressful transaction. This is one of the various reasons why measurement of coping is felt to be difficult.

However, Lazarus and his colleagues developed a measure called *ways of coping* (Folkman & Lazarus, 1980, 1985,) consisting of a series of predicates each of which portrays a coping thought or action that people engage in under stress. Respondents indicate whether they used each of these responses in a given stressful transaction. Embedded in this ways of coping scale is the important distinction between problem-focused coping and emotion-focused coping. Research, however, typically finds that responses to the ways of coping scale form several factors other than these two (e.g., Aldwin, Folkman, Shaefer, Coyne & Lazarus, 1980; Aldwin & Revenson, 1987). Researchers generally view that factors other than problem focussed coping are variations on emotion focussed
coping. These factors often diversify quite sharply in character to the extent of being inversely correlated (Scheier et al., 1986). Because some emotion-focused responses involve denial, others involve positive interpretation of events and still others involve seeking out of social support. These responses are different from each other having very different implications for successful coping in a person.

Problem-focused coping also potentially involves distinct activities like planning, taking direct action, seeking assistance, screening out other activities and so on. Study of these activities needs separately measuring them and suitable ways of measuring them is very much required.

A survey of existing measures of coping processes (C. Carver, M. Scheier & J. Weintraub, 1989) reveals important problems in the use of them. First, although there is a good deal of diversity in the assessment of various measures (McCrae, 1982, 1984) none of them sampled specific domains of theoretical and practical importance. In the second place, the pre-existing scales suffer from a lack of clear focus in some items. Thirdly since the scales have been derived empirically, they are loosely linked to theoretical principles. Considering all these, some very recent investigations (C. Carver, M. Scheier & T. Weintraub, 1989) have developed a multi-dimensional coping inventory called COPE to assess the different ways in which people respond to stress.
The COPE has two formats: dispositional and situational consisting of 13 scales and each scale having four items. Five scales measure aspects of problem focussed coping, five scales on emotion focussed coping and three scales assessing focus on and venting of emotions, behavioural disengagement and mental disengagement. But the COPE has a number of limitations. It has psychometric problems of consisting of four items, separating factors into more than one subscale and emphasising gender differences but combining the data of both sexes in the analysis of result.

Considering the merits and limitations of several self-report measures and the relevant research, N.S. Endler and T.D.A. Pasker (1990) have constructed a multidimensional coping inventory (MCI) that identifies three types of coping styles: (a) task oriented, (b) emotion oriented and, (c) avoidance oriented coping. The results suggest that the MCI is a valid and highly reliable multidimensional measure of coping styles.

Coping and Mental Health

The last decade has seen explosion of research on how people cope with stress. The research suggest that existence of stress, as measured through stressful life events, may be less important to well-being than how an individual appraises and copes with stress (Antroovsky, 1979; Lazarus, 1981). Although initial results are encouraging, (e.g., Caplan, Naidu & Tripathy,
unsolved issues still remain regarding the measurement of coping and its relation to mental health.

There is also no clear consensus as to which coping strategies or modes of coping are most effective to resolve problems, prevent future difficulties or relieve emotional stress. The few studies that have examined the relation of coping to some outcome measure, have produced inconsistent results. Some studies, for example, noticed that problem focused coping decreases emotional distress whereas emotion focused coping increases it (Felton & Revenson, 1984; Mitchell et al. 1983). Others, however observed the opposite pattern. (Baum, Fleming & Singer, 1983; Marrero, 1982). In another study, Menaghan found that problem focused coping had little effect on emotional distress but did decrease subsequent problems.

Many factors can influence the association between coping and mental health outcomes. Important of them are - (a) the type of problem faced (Pearlin & Schooler, 1978 and, (b) the degree of stress experienced (Menaghan, 1982). Besides, measures of emotional distress are often used to assess the effectiveness of coping but distress itself may affect both how an individual copes and the efficacy of the strategy (Felton & Revenson, 1984). Interestingly, there remains still another factor which is seldom examined. This is the impact of the coping effects on the problem itself.
According to Aldwin and Revenson (1987), three major issues need to be addressed to understand the relation between coping and mental health: (a) causal directionality, (b) additive versus interaction mechanisms underlying coping effects and (c) the effect of perceived coping efficacy on the relation between coping strategies and psychological symptoms.

According to the authors, without longitudinal data, though the relation between coping and mental health can be established, the causal direction cannot be determined. Some studies (Feltor & Revenson, 1984; Menaghan, 1982; Pearlin et al. 1981) using cross-sectional designs reveal that coping may affect well-being independent of prior mental health status. But it is equally likely that people in poor mental health, use different and less effective strategies compared to those in better mental health. A number of other studies have also shown that depressives exhibit different coping patterns than non-depressives. Thus, it is not clear whether ineffective coping causes or is the cause of depression.

Another issue concerns the very mechanism through which coping is associated with mental health outcomes. Two alternative models are proposed such as, (a) main effects model (additive effects or direct effects model) which postulates that coping has beneficial effects on well being regardless of the nature of stressful situation being faced. (b) The interaction model,
suggests that coping has few main effects but moderates the impact of stressful episodes depending upon the type or degree of stress encountered.

However, studies testing these two models, have yielded mixed results; several studies have only found main effects but others have shown strong evidence for interaction effects. Mitchell et al. (1983) found main effects but weak evidence for interaction effects. Pearlin et al. (1981) found that problem focused coping had only interaction effects but no main effects as depression. In a series of studies, Martin and Lefcourt (1983) exhibited that the use of humour as a coping strategy has a clear buffering effect on negative life events.

In the third place, the authors emphasise on coping efficacy. Specifically, the authors feel that the relation between coping and health outcomes is generally assessed without examining a crucial intermediary step: whether coping efforts are successful in achieving the individual's goals. As there are seldom objectively measured criteria for this, efficacy is often best assessed by asking the individuals for their perception of the outcome of coping efforts.

To overcome the above cited difficulties, the authors (Aldwin & Revenson, 1989) explored the relation between coping strategies and psychological symptoms in a longitudinal community survey of 291 adults. Respondents completed the revised ways of
coping scale (Folkman & Lazarus, 1985). The authors noticed that people with poorer mental health and under greater stress used less adaptive coping strategies, coping effects affected mental health independent of prior symptom levels and degree of stress. Main effects were confined to emotion focussed coping and showed little negative impact on coping of mental health. With problem focussed scales, interactive effects were observed. Authors indicated that the direction of causality may depend partly on how the respondent (he or she) handled the problem.

Coping Effectiveness

Bandura (1986) has reviewed a large body of empirical evidence that indicate self-efficacy (beliefs in one's capabilities to execute required behaviours), that facilitates adaptive behaviour and helps to mediate constructive behaviour change. The most important and influential condition of self efficacy appears to be 'mastery experience'. This refers to the fact that the person is having effective repertoire of behaviours. Increase in self efficacy is noticed to be increasing self observations of improved performance and coping skills (Bandura, 1977).

According to Bandura (1977, 1986.) self efficacy expectancies vary along three major dimensions - (a) Magnitude, (b) strength and (c) generality. Magnitude refers to the relative difficulty
of task demands and strength indicates resistance to disconforming experiences. Generality, on the other hand, points at the relative degree of specificity or pervasiveness of expected mastery. Research generally focuses on magnitude and strength dimensions but little attention is put to generality. In one study Bandura et al. (1980) demonstrated that coping behaviour learnt in one situation generalised to similar community settings. But no attempt was made to assess generalization to dissimilar situations. Other studies show that situation and task-specific expectancies of self-efficacy predicts successful behaviour better than measures of perceived personal control. However, the desirability of helping people to develop generalized feelings of self-efficacy highly correlates self-esteem (Coppel, 1980).

Many cognitive behavioural coping and skill programmes are designed to facilitate requisite of self-efficacy expectancies (D’Zurilla & Mezu, 1982; Meichenbaum, 1985; Smith, 1980). Such programmes help people to cope more effectively with specific problematic situations. But the acquired skills may be general life skills applied to different life situations. In fact, to what extent the coping skill programmes resulted in generalised self-efficacy is not established by research.

Some recent investigators have demonstrated constructive thinking as a broad coping variable (Stein & Neier, 1989). The authors derived a constructive thinking inventory (CTI). Factor analysis of CTI and other tests revealed separate intellective
and non-intellective factors. The global constructive scale correlated significantly with success in work, love, social relationship and in maintaining emotional and physical well-being. Measures of IQ loaded with intellective factors and correlated strongly with academic achievement.

Critical Dimensions of Adolescence

The traditional developmental theories describe adolescence as a turbulent stage of development, a period of "storm and stress" (Hall, 1984) and a period of "identity crisis" (Erickson, 1959) development is a multifaceted process that includes the interplay of multiple factors. This has been succinctly stated by Daman and Hart (1982) in their model of self-understanding development. In particular, they emphasised that "age change implies a reordering of factors" and development requires the resolution of opposite forces that come in different situations and age periods. This emphasis on the relational pattern of factors is also evident in Lewin's (1939) field theory of development. According to Lewin, multiple forces operate in one's life space, which is characterised by how structured and accessible are the regions it contains. The configuration in the life space changes from one age level to another due to internal and external changes. Here the focus is on the relation and constellation of factors and not on any single factor.

Specifically adolescence is a period of psychological development which spans the period between the onset of puberty and
adulthood. It can be viewed as a product of child development and as a precursor to adult development (Poole, 1983). Thus it is not an isolated period of life but an important part of a continuous life cycle highlighted by the search and possible resolution of identity issues. (Erikson, 1963). Additionally it is a time when sexual needs and sexual identity issues come into prominence (Lerner & Spanier, 1980). Although biological changes are generally thought to be complete with the attainment of puberty, there are aspects of maturing body shape which continue with growth in body size (Peterson & Tailor, 1980). These bodily and hormonal changes, no doubt influence self-image which, in turn, exerts an impact on a host of psychosocial variables, leading to "problem behaviour" in adolescents. (see Jessor, 1987.)

Problem behaviours are behaviours that have been defined socially as a problem, as a source of concern, or as undesirable by the norms of conventional society, and their occurrence usually elicits some kind of social control response. Examples in adolescents include delinquent behaviour, problem drinking, illicit drug use, and precocious sexual activity - which are largely regarded as unconventional behaviours, or health compromising behaviours. Conventional behaviours, in contrast, include involvement in school activities and other behaviours that are socially approved, normatively expected and institutionalised as appropriate for adolescents and youth. Such activities are also regarded as health related behaviours.
Like conventional behaviours, health maintaining behaviours are socially approved by conventional adult society. Adolescents are encouraged by parents, the media, schools and other institutions to get adequate exercise, to get plenty of sleep at night, to eat healthy food etc. Social norms are thus relevant to health related behaviours just as they are to other conventional behaviours. In addition, much of the socialization regarding health behaviour is carried out by institutions like the family, the schools, neighbourhood and religious organizations that tend to foster conventional behaviour. To the extent that adolescents are psychologically committed to these conventional institutions and positively involved with them, they should be more likely to adopt the patterns of behaviour promoted by them, including health maintaining behaviours and less likely to adopt behaviours not endorsed by them, including health compromising behaviours.

The social psychological framework of problem behaviour theory encompasses three systems of explanatory variables - the personality system, the perceived environmental system and the behaviour system. Each system is composed of variables that serve either as instigations for involvement in problem behaviour or as controls against involvement in problem behaviour. It is the balance between instigations and controls that determines the degree of proneness for problem behaviour within each of three systems. The overall level of proneness for problem
behaviour, across all three systems, reflects the degree of psychological conventionality-unconventionality characterising each adolescent.

John E. Donovan, Richard Jessor and Frances M. Costa (1991) examined the relation of psychological and behavioural conventionality-unconventionality to health related behaviour in cross sectional data from 1,588 male and female 7th to 12th graders. Conventionality-unconventionality was represented by personality, perceived social environment and behaviour variables selected from the social psychological framework of problem behaviour theory (R.Jessor & S.L.Jessor, 1977). Results show that greater psychological conventionality correlates with more regular involvement with health related behaviour (Regular physical activity (adequate sleep, attention to healthy diet etc.). Greater behavioural conventionality (less involvement in problem behaviours like Marijuana use, problem drinking, delinquent type behaviour, etc.) was also associated with greater involvement in health maintaining behaviour. The overall findings provide support for the extension of the problem behaviour theory to the domain of adolescent health behaviour and for the relevance of the dimension of conventionality-unconventionality.

Development, a multifaceted process, takes into account the interplay of multiple factors and "age change implies a reordering of factors" (Damon & Hart, 1982; p.362). In accordance with this
perspective, crisis occurs when the change in relations among salient factors makes the adolescent vulnerable to disturbance. In self concept development, the dimensions of intellectual ability and physical appearance are accorded great importance in adolescence (Damon & Hart, 1982; Lewin, 1939; Wylie, 1979). The two aspects may relate closely. If they develop differently, confusion in self evaluation may arise. The lack of confidence in one's look may undermine the confidence in one's brain and self-worth. The school environment, for example, may facilitate the growth of academic ability, but at the same time may create increasing pressure and anxiety. (Eccles et al. 1984). Such anxiety or fear of failure has been shown to be an important barrier to achievement motivation and academic ability development (Atkinson & Feather, 1966). Adolescent's social development, on the other hand, is likely to be related to their confidence in their physical image. Studies have shown that physical appearance is a major factor in friendship formation and positive self perceptions (Bercheid & Walster, 1969). The confidence in physical appearance, may therefore be related to extraversion, a significant personality trait in social relationship (Morris, 1979). Moreover, the possession of high self concepts of ability (a cognitive asset) and appearance, (a social asset) may enhance the feeling of personal control (Locus of control).

Another major factor is healthy self development (Iefcourt, 1984). The relations of self-concept to these factors (locus of
control, extraversion, test anxiety) may also change with age due to maturation and expansion of life experiences. Confusion in the relations may result when coping with upsurge of experiences becomes difficult especially in mid adolescence. (Adelson, 1990; Eccles et al. 1984).

Sing Lau (1990) conducted two studies on Chinese students. In the first study of 5986 Chinese students, two distinct self-concept dimensions were included and their relations to one another and to locus of control, extra-version, and test anxiety were compared across six primary and secondary grade levels. This was in contrast to past studies that focus on the overall change of global aspects of self-concept. The results revealed that self-concept of academic ability increased with age, whereas self-concept of appearance decreased with age. Both self-concepts were closely related. Locus of control was more related to self-concept appearance, and test anxiety to self-concept of academic ability. Extra-version was related only to self concept of appearance. These relations existed mainly in adolescents (especially girls) and not in younger children. Midadolescence was found to be a critical period as both self-concepts showed quite drastic changes. Tentative evidence showed that the transition from sixth to seventh grade tended to have a dampening effect on the two self-concepts. The second study, conducted on 701 secondary school Chinese students lent further support to the first study. The focus of this second study was on the academic and appearance
self-concepts and their relations with locus of control and other self concepts. As boys and girls develop differently, (Maccoby, 1980) sex was included in the data analysis of both studies.

In sum, the present results tend to indicate that adolescence is a period quite susceptible for and vulnerable to disturbance. The self-concepts may develop in different directions and the close relations between them may create negative outcomes. In the second place, academic self concept increases with age and it is related to test-anxiety which may have a braking effect on self confidence and cognitive development. Thirdly the decline of appearance self-concept with age may further impede personal growth for its relation with locus of control and extraversion that may hinder social development.

Clearly, adolescence is a period within the life span which is highlighted by developments in all facets of the individual. Since adolescents are members of a community or abide within a social context, their development, especially in terms of social and emotional aspects is both influenced by and intern influences the community. The way they cope with their concerns especially their stressors, are reflected in their coping behaviours. Since cognitive change in adolescence is reflected in the development of abstract thinking (Piaget, 1969.), their selection of coping strategies include a variety of cognitive styles and abilities reflecting various levels of concrete and abstract thinking.
Erica Fryderberg and Roman Lewis (1990) developed an Adolescent Coping Checklist (ACC) which initially contained 50 items but later expanded to 90 items to fully capture adolescent coping behaviour. The application of the ACC with adolescent populations has determined how adolescents cope with a range of concerns relating to achievement, relationship and altruism. There is a high usage of seeking social support and a relatively low usage of seeking spiritual support and seeking professional help.

Specifically the study indicated that some adolescent coping behaviours are applied significantly more than others. Strategies that relate to caring and concern about relationship with others and what others think are most relevant in managing relationship concerns. On the other hand worry (worry about one's personal future) and seeking professional help are used less with relationship concerns than with other concerns. This is indicative of a general ability of students to manage these type of concerns in ways which draw more on their personal resources and require less reliance on professional help.

A Summary

The reformulated model of helplessness and depression, resting on the framework of explanatory style, suggests that non-contingent events produce helplessness and depression. The depressed affect is more prominent in personal rather than in
universal helplessness. The model also suggested and explained a fourth deficit 'low self-esteem', besides motivational, cognitive and emotional deficits. A number of studies indicated that depressed individuals attributed bad events more to internal, stable and global factors than the non-depressed. Few other studies suggest that a pessimistic explanatory style may promote illness and becomes a risk factor leading to probable morbidity and mortality.

Studies also show that a number of problems encountered during the old age are also caused by the loss of control over the environment. Further more, helplessness has been related to impairment of intellectual efficiency following experiences of failure. Thus helplessness is postulated to be a negative predictor of a number of factors associated with quality of life.

A good number of studies have also attempted to study coping and stress representing a broad spectrum of adaptation process. The theoretical and empirical work of Lazarus (1966) has focussed on how a person's cognitive appraisal of a stressful situation affects the elicited emotional reaction. Apart from active and avoidance coping, different other kinds of coping strategies include inhibition of action, information seeking and intra-psychic modes. Almost all people use both problem focussed coping. Although it is very difficult to designate a specific coping strategy as an effective one, direct forms of
coping are generally considered adaptable than are avoidable form of coping. While evaluating the effectiveness of coping, the role of several moderating variables such as social support, dispositional and situational variables are to be considered.

As outlined earlier, adolescent period represents a critical phase of life where constant changes take place. There is always possibility of polarisation of attitudes and values during this phase. The different variables that shape adolescent's behavioural syndrome include identity crisis, value conflict, consciousness of health and body image and confrontation with conventional standards. These opposing forces bring the possibility of unexpected and rapid change during this phase.

Rationale and Objectives

An analytical treatment of literature concerning stress and coping clearly suggests the rationale for considering coping strategies as units of analysis in the context of human adaptation and health. The empirical studies regarding adolescent behaviour also points that the use of specific coping strategies by adolescents is indicative of their behavioural orientation. However, there is no robust framework to suggest how these two elements are related. Although certain dispositional and situational variables are believed to influence the choice of coping strategies, no specific parameters have been suggested to predict the adoption
of definite coping patterns. It has been asserted in the present investigation that helplessness is an intervening variable that may mediate between the adolescence and coping forms.

With this rationale, it is conjectured that helpless adolescents are likely to adopt certain coping strategies that are indirect and less efficacious. As argued earlier, helpless individuals show striking deficit in establishing a cognitive linkage between events and outcomes. Such individuals also experience lack of initiative and demonstrate depressed affect. These deficiencies are likely to impair their selection of coping strategies that are adaptive to events. On the contrary, adolescents with mastery orientation are likely to opt strategies that are directed to problem solution. They emphasise learning goals and keep on changing strategies in the face of difficulties. Consequently, it is plausible that mastery oriented adults would be more inclined to adopt direct and efficacious coping styles.

These testable predictions have not been investigated in previous studies. The present investigation is geared to examine such empirical conjectures. Apart from this primary objective, attempts are also directed to investigate the predicted pattern of relationship amongst helplessness dimensions. As pointed out earlier, dimensions of noncontingency, dissatisfaction and motivational deficits are major components. The model of helplessness also suggested predicted pattern of relationship amongst
these components. This project intends to examine the association with a view to contributing to its generality.

Another objective of the study concerns the distinction between personal helplessness and universal helplessness. Since these dimensions are believed to have different consequences, attempts are directed to examine whether personal helplessness is related to helpless components (non-contingency, dissatisfaction, motivational deficit) in a different pattern compared to universal helplessness. This objective is more pertinent in Indian socio-cultural system because helpless people, in India, basically experience the universal type whereas helpless people in the west mostly experience the personal variety.

Finally, the significance of explanatory style has been brought out in the preceding section. In view of its import, the study has concerned the role of explanatory style in the context of coping strategies and helplessness deficits. While considering these important parameters of helplessness, attribution and coping, attention has also been directed to identify the role of several socio-demographic features such as the role of sex, age and that of education.

Hypotheses

In view of the foregoing, the following hypotheses are formulated for empirical investigation:
1. Mastery oriented adolescents adopt direct coping strategies to a greater extent than do helpless adolescents.

2. Helpless adolescents choose indirect and avoidant forms of coping to a greater extent compared to the mastery oriented adolescents.

3. Adolescent boys adopt more of problem focussed (direct) coping than do adolescent girls.

4. Adolescent girls adopt more of avoidant forms of coping (indirect) than do adolescent boys.

5. The strength of association between personal helplessness and non-contingency is greater than that between universal helplessness and non-contingency.

6. The strength of association between personal helplessness and dissatisfaction will be greater than that between universal helplessness and dissatisfaction.

7. The magnitude of positive relationship between personal helplessness and motivational deficit will be greater than that between universal helplessness and motivational deficit.

8. Attributional dimension of internality, stability and globality for explaining bad events are positively related to personal helplessness, universal helplessness, non-contingency, motivational deficit and dissatisfaction.

9. Attributional dimensions of internality, stability, and globality for explaining good events are negatively related to personal helplessness, universal helplessness, non-contingency, motivational deficit and dissatisfaction.

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