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History of Childhood Loss, Recent Life Events and Depression in an Undergraduate Population

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History of Childhood Loss, Recent Life Events and Depression
in an Undergraduate Population

by

KIM M. DELL'ANGELA

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VITA

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CHAPTER I

INTRODUCTION

Depression has been labeled the "common cold" of psychopathology (Gilbert, 1984). This comparison is an unfortunate one for it conveys the impression that it is a frequent but mild complaint. In reality, depression is responsible for the majority of suicide deaths (Minkoff, Bergman, Beck, & Beck, 1973; Wetzel, 1976). Depression has also been linked to a suppression of the body's immune response which combats illness and may well reduce life expectancy in certain disorders, e.g. cancer (Whitlock & Suskind, 1979). In addition to these life-threatening physical correlates, depression also often significantly affects an individual's work and interpersonal functioning. Lost days of work, lost jobs, broken marriages and homes, alcoholism and child neglect have all been linked to depression. The emotional suffering of depressed individuals and their families is less easily measured.

Fortunately, depression has become more treatable due to the great progress that the medical field has made towards understanding the biological substrate of the disorder and the development of new drugs. Contributions have

been made towards the understanding of the mechanisms and treatment of depression by the field of psychology as well. In this field there has been no shortage of competing theories of depression and almost as many distinct corresponding treatments for this disorder. One of the most enduring of these theories has been that originally put forth in Freud's *Mourning and Melancholia* (1917/1950). In this classic piece of psychoanalytic theory, depression is seen as a reaction to a currently perceived loss that reactivates depressive feelings associated with the loss (by death or abandonment) of a parent or other loved object in childhood (Redlich & Freedman, 1966). Bowlby's (1969) work on maternal separation have supported this conceptualization as has extensive work with primates on animal models of depression (Young, Soumi, Harlow & McKinney, 1973). In addition, object relations theorists point to the interruption of cognitive and emotional development that occurs when a important object, such as a caregiver, is lost during critical maturational periods in childhood and the effects this may have on the adult's adjustment (Blatt, 1974). Thus, from perspectives as disparate as psychoanalysis and primate behavior study, the theory has been advanced that people who have experienced the early loss of a caretaker are vulnerable to the development of depression when faced with a real or symbolic loss as an adult (Crook & Elliot, 1980). Other theo-

rists and researchers have broadened the conceptualization of loss from death or abandonment to include physical separation and physical or emotional neglect or deprivation. Berlinsky and Biller (1982) have examined studies of this more symbolic parental loss and conclude that these experiences too may predispose an individual to develop depression as an adult.

But predispositions, regardless of supposed cause, do not account for all the cases of depression found in the literature or the clinician's office. In fact, the very concept of predisposition or vulnerability suggests that other factors are necessary to initiate the onset of the disorder. One of most well researched possible precipitants to depression has been stressful life events. Theories of stress have emphasized the ways in which a person must adapt physically and cognitively to changes in their environment. Researchers have found that depressed individuals have experienced significantly more and more severe life changes in the time preceding the onset of depression than have their nondepressed counterparts. But not all people who experience severe stress become depressed.

Recently, investigators have begun to examine the role of vulnerability factors in the stress-depression relationship. Brown (1979) has investigated the interaction between the vulnerability factor of history of childhood parental

bereavement and the precipitant of stress in the onset of depression. He studied women in London who were receiving inpatient or outpatient treatment for depression. These women, who carried psychiatric diagnosis' of major depression, were interviewed and information was gathered about recent stressful life events and history of loss of a parent during childhood. A random sample of women from the same geographical area who had not been psychiatrically hospitalized for depression in the year prior to participating in the study, were also interviewed and served as the control group. He found that the women who had sustained early object loss were not depressed unless they had also experienced high levels of stress. This finding suggests that loss and stress may both play a role in the onset of depression. This study and others like it have been criticized on methodological grounds (Crook and Elliot, 1980). In Brown's study, a semi-structured interview was used to assess life stress. There is no normative, reliability or validity data available for this measure of stress. The presence of depression was determined by psychiatric diagnosis which has been frequently criticised as an imprecise measure of depression for research (Berlinsky & Biller, 1982). In addition, the researcher's assumption that that the women in the control group were nondepressed because they had not been psychiatrically hospitalized for depression in the year

prior to the study raises some serious questions about the appropriateness of the control group in this investigation. There is a need to study this proposed interactional relationship between stress, loss and depression using both males and females, an established measure of depression, and an appropriate control group.

In the present study, a population of undergraduate males and females was studied to determine whether Brown(1979) and others' findings on stress, loss and depression generalize to other populations. Loss and deprivation in childhood were examined to determine whether they are vulnerability factors that differentiate between individuals who become depressed and those who do not after experiencing different amounts of stressful life events. Those who have experienced a childhood loss are expected to show a different pattern of depression under stress than those who have not sustained such loss or deprivation.

CHAPTER II

REVIEW OF THE LITERATURE

Depression

Depression has been conceptualized in a number of ways and the differences between these conceptualizations often reflect different theoretical viewpoints on the etiology of depression or psychopathology in general. Fenichel (1945) views depression as a unitary phenomenon involving a decrease in self-esteem. Bibring (1953) sees it as the ego's affective reaction of helplessness to a difficult reality. Blatt (1966) considers depression as a character style in which there is unusual susceptibility to dysphoric feeling and a vulnerability to feelings of loss and disappointment. Depression has been described as a clinical entity and as a normal and necessary affect state (Bibring, 1953; Freud, 1914; Zetzel, 1960). The issue of maintaining contact with the need gratifying object is an important aspect of the psychoanalytic view of depression (Beck, 1967; Blatt, 1972). Klein (1934) considers the basic fear in depression to be the loss of internal objects and the predisposition to depression as based on the failure to establish firmly the "good internal object". This failure is

seen as having its origin in the disruption of a primary affectional bond. From a number of theoretical positions within the psychodynamic literature, there appears to be considerable support for the basic thesis that there is an evolving development of object representation and that impairment in the development of this capacity, which results from the breach of a significant relationship during development, creates a particular vulnerability to depression. This is usually precipitated by actual or threatened object loss. Psychodynamic formulations of depression usually focus on the the genetic etiology of the disorder and the psychological conflicts which underlie the behavioral manifestations of the disorder.

More cognitive and behaviorally oriented theorists understand depression in terms of reinforcement, conditioning and learned behaviors. For example, Seligman's work on learned helplessness suggests that it is not traumas per se that have adverse consequences such as depression but it is unpredictable and uncontrollable trauma that is associated with the development of depressive symptoms (Becker, 1979). Many cognitive theorists also focus on the frequent finding that depressed individuals have low self-esteem to explain the mechanisms of depression (Becker, 1979). However there is considerable debate about the extent to which this correlate of depression plays a causal role in the etiology of

the disorder.

Observable manifestations of depression may include fatigue, suicidal ideation, particular changes in sleeping and eating patterns, decreased interest in sex, loss of interest in usual pastimes or activities, dysphoric mood, decreased ability to think or concentrate and psychomotor agitation or retardation (DSM III, 1980). Because of the variety of symptom patterns possible in depression, theorists and researchers have attempted to break the disorder down into subtypes. These have included groupings based on postulated etiology such as distinctions between endogenous and exogenous depression, chronic versus reactive, and agitated versus retarded depressions. Drawing on the works of Segal, M. Klein, Zetzel, Freud, Rado, Guntrip, Mahler and others, Blatt (1974) has also elucidated the psychoanalytic dyad of "anaclitic versus introjective" depression and described the different patterns of object relation development that result in each. There has been some discussion in the literature as to whether depression is a discrete entity as commonly used psychiatric criteria would suggest, or whether it is a continuous disorder with ranges of intensity and symptom patterns. Those who conceptualize depression as a continuous disorder, that's mildest forms may be said to be qualitatively similar to that which results in severe disablement, do not find these dichotomous distinctions particu-

larly valid or useful.

The Measurement of Depression

Due to these differing views regarding just about every facet of the disorder called depression, the disorder has been very difficult to quantify for research purposes. However, Beck (1967) in his work on depression, has found that the cognitive themes of depression are remarkably similar across all of the subsets based on etiology or symptom cluster. On this basis he developed the Beck Depression Inventory (BDI) which has been widely used as a research and diagnostic tool for depression. It has been found to correlate highly with psychiatric diagnosis of depression as well as other validated measures of depression. Its reliability and validity have been extensively documented and it has been reported to discriminate reliably between depression and other forms of psychiatric disturbance. Beck's measure of depression is based on a cognitive model of the disorder but has been useful in quantifying depression for researchers and professionals who do not share this cognitive conceptualization.

Depression and Loss

Theory. No other interpersonal relationships have been accorded the primacy and importance for affective development as those of the child with his or her parents or primary caregivers. It has thus been assumed by theorists and researchers alike that any disruption of this primary bond will ultimately result in the interruption of the "normal" psychological growth process. The most severe of these possible interruptions - the death of a parent - has been frequently cited as of etiological significance in the development of adult depression. This is most frequently seen in psychoanalytically oriented literature. Psychoanalytic theory traces maladaptive behavior to childhood events that interfere with the emergence of adult coping skills. Some theorists such as Bowlby (1961), believe that the individual is sensitized to events in adult life that somehow revive the childhood traumata. Therefore, adults who have sustained significant losses during childhood are more sensitive to adult losses and develop depression more readily as a result. Bowlby's theory of bonding and separation have been widely investigated and the validity of his "stages of mourning" has been established in infant humans and other mammals (1963).

Other theorists have different ideas about the mediational factors in the hypothesized relationship between

childhood loss and adult depression. Miller, in her 1971 review of some of the works of such authors as Freud, Mahler and Abraham, concluded that there was a consensus among these authors that children do not experience "true mourning". She defines true mourning in terms of the gradual and painful emotional detachment from the inner representation of the person who has died. This healing process, of which the authors believe children are not developmentally capable, is thought to be replaced by manifestations of denial, increased identification and idealization of the dead parent, avoidance of expressions such as grief or anger and decreased self esteem. This inability to 'work through' the trauma because of the child's lack of object permanency necessary to do so, results in the aforementioned manifestations of grief. Such manifestations do not resolve the conflictual feelings that arise and thus make the individual more sensitive to these unresolved issues around loss and separation as an adult. There are a number of differing opinions about the role of mourning (or lack thereof) in childhood loss and its psychological consequences. There are those, such as Bowlby (1960), who believe that the mourning process in children is possible and can be observed as early as the sixth month and Furman (1964) who thinks that it can only be observed from the third or fourth year onward. According to Nagera (1970) mourning only becomes

possible with the resolution of the adolescent phase, after appropriate detachment from parental figures has taken place. All of these theorists believe that a minimal level of the development of a sense of self as separate is necessary for mourning to take place. What they disagree about is at what developmental level this sense of separateness is established enough to allow true mourning. None of these theorists suggest, regardless of whether they believe that mourning has taken place, that the loss of a significant object has no effect on representational abilities of the child experiencing this loss.

Other theorists do not view the mourning process as the crucial issue in the how the disruption of primary affectional bonds as a child may lead to the development of depression in the adult. Object relations theorists generally believe that cognitive and emotional development and ways of seeing the world that results from the course of this development (object representation) have a profound effect on an individual's vulnerability to psychopathology. Blatt (1974) and Blatt and Lerner (1983) have described the way in which object representational abilities develop during the life of the child and the manner in which loss or deprivation may alter the course of this development so as to render the individual more vulnerable to depression as an adult. Blatt and Lerner state that:

Representations of self and others are initially vague and variable and only develop gradually to become consistent, relatively realistic representations. Based initially on pleasurable and unpleasurable experiences of frustration-gratification, the child begins to build stable representations of the self and others and to establish enduring investments and affective commitments.... The relatively predictable sequences of frustration and gratification in caring relationships provides the child with the foundations for a sense of (psychological) organization and coherency.... It is the internalization of the caregiver's organized and structured responses to the child that provides the basis for the establishment of cognitive structures. Broadly defined, object representation refers to the conscious and unconscious mental schemata including cognitive, affective and experiential components of objects encountered in reality (Blatt and Lerner, 1983 ; pp. 193-195).

They suggest that there is a constant and reciprocal interaction between past and present interpersonal relations and the development of representational abilities. Impaired representational capacities hinder an individual's ability to maintain a sense of contact with the object that is relied upon to sustain internal feelings of acceptance and cohesion in the absence of that object. A perceived loss (physically or psychologically) thus affects the individual's sense of internal cohesion and this distress may well manifest itself as depressive symptoms. Joffe and Sandler (1975) add that what is lost in object loss, as a child or as an adult, is ultimately the state of the self for which the object is the vehicle.

Research on loss and depression. Although the literature does not provide evidence for a direct causal connec-

tion between history of parental bereavement as a child and depression, Heinicke (1973) notes that several relationships of major clinical importance have been uncovered. Perris (1966) found, for instance, that the mean age of onset for the first episode in unipolar psychotic depressives was ten years earlier if the individual had experienced object loss as a child. Beck, Sethi, and Tuthill (1963) reported that the severity of depression as measured by the Beck Depression Inventory was positively correlated to childhood object loss. Other investigators have demonstrated that suicide attempts in a depressive population were more frequent in the group with a history of object loss sustained during the developmental period in childhood (Hill, 1969 ; Levi, Fales, Stein & Sharp, 1966). These findings illustrate specific ways in which developmental object loss can modify the course and symptomatology of depressive illness. It is likely that the depressogenic effects of these losses is translated into actual depression through the mediating effects of a characterological component such as object representation.

In Berlinsky and Biller's (1982) comprehensive review of the research on childhood bereavement and psychological development, they conclude that the results of studies on the postulated bereavement- depression link remain equivocal. They note that ten of the studies that they reviewed

associate childhood parental bereavement (the child experienced the death of one or both parents) with the development of depression in adulthood (Archabald, Bell, Miller & Tuddenham, 1962; Beck, Sethi & Tuthill, 1963; Birtchnell, 1972; Brown, 1961; Brown, Harris & Copeland, 1977; Dennehy, 1966; Earle & Earle, 1959; Forest, Fraser & Preist, 1965; Gay & Tonge, 1967; and Munro & Griffiths, 1968). Eight of the studies that they reviewed could show no such association (Abrahams & Whitlock, 1969; Birtchnell, 1966; Crook & Raskin, 1966; Hopkinson & Reed, 1975; Jacobson, Fasman, & DiMascio, 1975; Munro, 1966; Roy, 1979; and Sethi, 1964). In addition to looking at the findings of these studies, Berlinsky and Biller rated each study on its methodological soundness. In determining these ratings they took into account such criteria as control group composition, loss type specification, subject group matching, validity and reliability of outcome measures measures of depression, and appropriate use of statistics. When they examined the aforementioned eighteen studies dealing with childhood bereavement and adult depression, they found approximate equivalency in the average ratings given to the studies whose findings supported the link and those that did not.

This is in contrast to Crook and Elliot's (1980) claim that studies supporting the theory that childhood loss pre-

disposes adults to depression have been methodologically flawed while those disconfirming the possible link have been well controlled. The differences in the conclusions drawn by these researchers may be a function of the differences between the specific studies reviewed by the two sets of authors and by the variation in criterion by which the research was evaluated. For example, Berlinsky and Biller do not find psychiatric diagnosis to be an acceptable measure of depression. They cite studies that conclude that it is an unreliable and nonspecific method of evaluation for depression. Crook and Elliot consider it a methodologically sound way to assess depression. Herzog and Sudia (1973) have taken the position that the data from these methodologically flawed studies must be considered ambiguous because of both the conflicting findings and the poor quality of the research. Berlinsky and Biller (1982), however, join Brown (1966) in concluding that "despite the problems, there has been shown to be some association between depression and parental bereavement in childhood (p.28)". They base this on their finding that there were more positive findings among the most methodologically sound studies that they examined though average ratings overall were equivocal. They caution, however, that there are complex relationships between the variables studied and that a unidimensional cause and effect relationship is unlikely to be uncovered. They

recommend that research consider multiple variables in a systematic manner.

Depression and Deprivation

It is not only the childhood loss of a parent through death that has been linked to the development of depression as an adult. Two studies have investigated the differences loss produced as a result of death and that as a result of divorce. One study (Earle & Earle, 1959) found that depression was more common in those patients who lost their mothers due to divorce rather than death. However Munro (1966), in a similar but more well controlled study, found no differences between the type of loss sustained in severe and moderate depression. Jacobson, Fasmoni & DiMascio (1975) in their investigation of the alleged link between loss and depression found no relation between depression and overt loss but a highly significant association between adult depression and reports of depriving childhood experiences. Depriving childhood experiences have been defined as the "...lack, loss or absence of an emotionally sustaining relationship prior to adolescence " (Jacobson et al., 1975 p.93).

These include the childhood experiences of having alcoholic (and unpredictable) parents, depressed or severely emotionally disturbed parents unable to form normal affectional bonds with the child, inability of the parent to take

on parental responsibilities due to illness and/or hospitalization, and highly conflictual relationships with parents.

Pitts, Meyer, Brooks & Winokur (1965) found that a group of 366 patients with a diagnosis of affective disorder did not differ from controls on the incidence of either maternal or paternal death prior to age fifteen. However, the groups differed dramatically on the incidence of "probable psychiatric disorder" in the parents. The parental disorder was likely to be depression in the mother and depression or alcoholism in the father. Systematic observations of interactions between depressed parents and their children have been fragmentary, but largely clinical accounts suggest quite negative effects on the nondepressed spouse and children (Becker, 1979). Findings on the less than adequate parenting capacities of depressed mothers have been summarized by Weissman and Paykel (1974). Blatt, Wein, Chevron and Quinlan (1974) note that clinical and research literature suggests that the central issue in the early childhood experiences of depressed adults does not appear to be the experience of object loss per se, but rather depriving childhood experiences. They further postulate that it is the failure to establish good relations and adequate levels of internalization of the object that results in vulnerability to depression.

Life Events and Depression

Theory. Stress has been widely implicated in the etiology of depression. However the concept of stress has no settled meaning. Although numerous suggestions have been made regarding its use, no single proposal has met with universal or even widespread acceptance. There are two traditions of stress research, however, that deserve brief comment, namely the physiological and the psychological. Hans Selye, the founding father of the physiological tradition states "For scientific purposes, stress is defined as the nonspecific response of the body to any demand "(1976, p. 55). He and other researchers in the physiological tradition place an emphasis on nonspecific hormonal responses or other bodily responses and the "stress" put on the body to adapt to these changes. In contrast, the psychological tradition of stress research has focused on how an individual comes to judge a situation as threatening, and hence stressful (Brown, 1979). Less attention has been devoted to the nature of the stress response. Indeed within this tradition, "stress" has been used as a generic term to refer to almost any response to a situation that taxes the individual's adaptive resources (Averill,1979).

Much of the research on the relationship between stress or "life events" and depression finds its roots in Meyerian views in medicine. This view is basically a unitary

one emphasizing the continuity between normal and diseased states. Theorists espousing this approach see depression as a psychobiological response to life's vicissitudes (Klerman, 1979). This view is compatible with psychoanalytic theories which emphasize the significance of both individual psychological development and the social environment. Thus, theorists generally assume that some types of life events require change and adaptation by the individual both physically and psychologically. It is theorized that repeated stress taxes the organism's adaptive capacities rendering the individual more vulnerable to pathology. This pathology includes physically based complaints such as high blood pressure, heart disease and migraine headaches and more psychological manifestations such as depression and anxiety.

Research on stress and loss. There is a large body of literature which supports the idea that "life's vicissitudes" or stress is linked to the development of depression. Paykel et al., (1969), in a controlled comparison of depressive onset, reported evidence to support this theorized link. Paykel and his colleagues found that, overall, depressed patients reported nearly three times as many life events in a "Life Events Interview" (based on a modified Holmes and Rahe (1967) schedule) during the six months before the onset of depression than did nondepressed controls. Paykel (1974) did a follow-up study on these

patients in order to investigate the possibility that events reported by depressives at the onset of illness are primarily reflections of personality disturbance and habitual, unstable life patterns and therefore might be reported just as frequently at any other time. This study found that for this depressed group, stress was lower and more stable during the nine months following release from the hospital than during the time preceding their hospitalization. The researcher concluded that this follow-up study did confirm the relationship between depression and stress. If stressful life events are important in depression, they would also be expected to produce effects in situations other than onset of the illness. Paykel and Tanner (1976) tested the hypothesis that stress also produces relapses in apparently recovered depressed women. They found that the pattern of events preceding relapse were similar to those seen prior to the onset of the depression.

Markush and Favero (1974) found that relatively mild symptoms of depression, as well as a symptom scale of less specific psychological distress, were related to measures of life events. Uhlenhuth, Lipman, Balter and Stern (1974) have reported similar findings as have Brown (1974) and Hudgens (1974). Weiner (1977) has described the literature on the physiological responses of humans and other mammals to separation and loss. These most stressful of life events

have been linked to immuno-deficiencies, hormonal fluctuations, heart disease, tuberculosis, asthma, colitis, ulcers, and cancer, among other illnesses. Stress has also been linked to psychiatric disorders, especially major depression.

Thus it appears that there is evidence that life events are involved in the onset and relapse of depression. In addition, there is evidence to support the idea that different types of events differ in their general propensity to produce illness (Paykel, 1979). Paykel and his colleagues have studied the perception of life events across a number of dimensions. These included desirability, controllability, how upsetting that the events were and whether they were perceived as exit or "entrance" events (Paykel, McGuinness, & Gomez, 1976 ; Paykel, Prusoff, & Uhlenhuth, 1971). Entrance events referred to those that involved the introduction of a new person into the social field and exits referred to those events that clearly involved a departure from the social field (Paykel, 1979). They found that, overall, "exit" events were rated as the most upsetting, undesirable, most stressful and most highly linked to the onset of depressive illness. They concluded from their cross-cultural studies that there is a universality in the meaning and implication of life events that extends beyond their precipitation of illness (Paykel, McGuinness, & Gomez,

1976). Hudgens(1974) and Brown(1974), among others, have added evidence that various types of psychiatric disorder may follow life events. Brown (1979) also noted that the distinctive feature of the great majority of severe life events is the experience of actual or threatened major loss. His definition of "loss" is similar to that of Paykel's for "exit events". Brown defined loss to include the separation from a key figure, the life-threatening illness of someone close, a major material loss or disappointment, an unpleasant revelation about someone close that drastically changes the relationship, and miscellaneous crises such as job loss. He and his colleagues found in a number of studies examining this relationship, that it was only these long-term loss events that played a role in depression for both chronically and reactively depressed people in the studies. He notes that "Severe, short-term threatening events play no role whatsoever in the onset of depression once the occurrence of severe long term threat has been allowed for" (Brown,1979; p270).

Different researchers have different ideas about the role of stress in the onset of illness. Holmes and Masuda (1974) for example, appear to assume that a clustering in time of life events of sufficient magnitude will have strong etiologic implications for physical or psychological health and that these implications are relatively independent of

the constitutional or predisposing characteristics of the individual. They postulate that when ordinary life events accumulate to "crisis" proportions, these events will evoke "adaptive efforts by the human organism that are faulty in kind and duration, lower 'bodily' resistance and enhance the probability of disease occurrence "(p.68). This crisis will have "etiologic significance as necessary but not sufficient cause of illness and accounts in part for the time of disease onset" (p. 48). Support for this conceptualization comes from research on the effects of catastrophes. Studies of the effects of natural and man-made disasters have provided the most unequivocal evidence for the proposition that stressful events can produce psychopathology (including and especially depression) in previously "normal" personalities (Arthur, 1974; Cooper & Shepard, 1970; Hocking, 1970; Kingston & Rosser, 1974). Fortunately, disasters that produce extremely high levels of stress are rare, and the average individual experiences only moderate stressors. It seems reasonable to assume that stressful life events such as illness, loss of a loved one or job loss must show a cumulative pattern, a clustering in the lives of some people if they are to have similarly stressful impact and similarly severe consequences.

In contrast, Hinkle (1974) views the role of predisposing factors as primary, with accumulations of stressful

life events playing a secondary role in the onset of illnesses such as depression. This is the view taken by the psychoanalytically oriented researchers who look for loss events in childhood and their relationship to adult depression with only brief if any consideration of the life events immediately precipitating the depression. Other investigators tend to weight life events as more or less important in the etiology of particular disorders (Dohrenweld & Dohrenwend, 1974). Thus, while there is agreement that stress is linked to pathology, the mechanism by which it operates is still subject to debate. Using as an example "exit events" or separation as stressors, Akiskal (1979) has summarized the complexity of the interactional patterns between life events and depression.

1. Separation is not a sufficient cause for depression, because a depressive response of clinical proportions is not observed in more than 10% of those who experience it (Paykel et al., 1969).
2. Separation is not a necessary cause for depression, because many depressions develop in its absence (Paykel, 1976).
3. Separation is not a specific cause for depression, as it precedes the onset or exacerbation of other forms of psychiatric disorder (Brown et al., 1973; Jacobs, Prusoff, & Paykel, 1974).
4. Separation may result from clinical depression and, therefore it may aggravate or maintain a pre-existing depressive condition.

5. Finally, separation may precipitate hospitalization rather than the depressive disorder (Hudgens, Morrison, & Barchha, 1967; Morrison, Hudgens, & Barchha, 1968).

The Measurement of Life Events

There is yet no consensus on the definition of stress; therefore the measurement of stress for research has been problematic. Holmes and Rahe's (1967) Schedule of Recent Experience (SRE) has been the most widely researched and used tool for measuring stress and is the most popular and exclusive definition of the construct to date. Holmes and Rahe (1967) believe the items on their stress scale to have one common theme. The occurrence of each event usually evoked or was associated with some adaptive or coping behavior on the part of the involved individual. Thus the scale has been constructed to contain life events whose advent is either indicative of or requires a significant change in the ongoing life pattern of the individual. Though psychometrically well established, there has been some debate about the authors' assumptions about the role of stress in illness in the construction of the scale. Perhaps the most persistent criticism of the use of the SRE in the measurement of stress, revolves around the definitional assertion that events are related to the onset of illness regardless of their desirability.

Many authors who have empirically investigated this question find that undesirable events are better predictors of illness than are desirable events (Gersten, Langner, Eisenberg & Orzek, 1974; Myers, Lindethal, & Pepper, 1971; Paykel, 1974; Ross & Mirowsky, 1979 ; Vinokur & Selzer, 1975). However, Tausig (1982) has shown that for depression the measure of total events and of undesirable events alone are related to depression to a similar degree. Another criticism of the use of this self report measure of stress concerns the fact that the descriptions of the events on the scale are not specific and are open to considerable subjective interpretation. However, Tausig (1986) found consistent patterns in responses that seem to indicate that event categories are interpreted the same way and that the face validity of the items is "reasonably good "(p.76). Although numerous studies have offered evidence that the stress scale has a statistical internal structure (e.g. Ruch, 1977; Ruch & Holmes, 1971; Skinner & Lei, 1980), according to Tausig (1986) the weight of evidence suggests that the scale does not possess regular internal statistical properties with regard to "exit events" or other categories. He notes, however, that theoretically, the scale may be divided in many ways into a priori categories and that these may in turn be examined for their selective impact on a dependent variable. Tausig (1986) has found, as have other researchers, that

occurrences of personal change, health related events and events concerning love and marriage are consistently more highly correlated with depression scores than were the other subscales that he examined. However, the absence of any significantly greater correlations with depression compared with the total scale suggests that no particular life event area is uniquely responsible for the overall observed relationship with depression. The usually reported range of correlations between life events and depression is .10 to .30 (Rabkin & Struening, 1976).

Researchers have also reported that depression is more highly correlated with events rated as undesirable than those rated as desirable (Ross & Mirowsky, 1979; Vinokur & Selzer, 1975). Tausig (1986) notes, however that when correlations with depression for undesirable events and for total events are compared, the correlations are equivalent. He concludes thus that when using the scale to predict illness, either total events or undesirable events alone will behave in the same manner (Ensel and Tausig, 1982). This is consistent with the research exploring the weighting of life events. Cooley, Miller, Keeseey, Levenspeil, & Sisson (1979) found that the scale has the same ability to predict illness whether stress is measured by differentially weighting events or by simply counting the occurrence of these events.

Statement of Problem and Hypotheses

The major portion of research on human disease, including depression, has focused on determining the mechanisms involved in the pathophysiology underlying the signs and symptoms of the disease entity. This is evident in depression research which boasts a large number of empirically confirmed correlates of depressive symptoms. These include such diverse entities as low self esteem, impaired object representational capacities, and catecholamine imbalances all of which are seen as "explaining" depression. Although these correlates are important and have some etiologic significance, it is essentially functional explanations which arise from this research. What we do not glean from these functional explanations is who is at risk for the disorder in question. Predictive and historical explanations are needed for a complete theory of illness. These historical explanations have been attempted by those who theorize and research the possibility that childhood loss is linked to adult depression and stress researchers who examine the predictive role of precipitating stress in the onset of this disorder. However, a comprehensive theory of a disorder incorporates three main foci: predisposition to the disorder, initiation of the disorder, and the mediational processes (DePue, Monroe & Scheckman, 1979).

Many mediational processes have been postulated

including the previously mentioned object representation issues and those of the organisms adaptive response to threat. Very little research has been dedicated, however, to the systematic exploration of the interaction between predispositions to depression and the precipitants of the onset of the disorder. Brown & Harris' (1978) previously mentioned study examined this relationship. However there is a need to investigate this relationship in other populations while addressing some of the methodological shortcomings of Brown's study. The present study sought to enhance our knowledge of the relationship between the variables of loss, depression and stress by using an undergraduate population of both males and females. Measures of depression and stress were collected from 260 subjects. As there has been some debate about the use of Beck's original cutoff scores in the assessment of depression in college populations, more restrictive cutoff scores were used (Gotlib, 1984). While a score of ten has been traditionally used as the line above which individuals were considered depressed and below which individuals were considered nondepressed (Beck et al., 1961) the scores of thirteen and above and five and below distinguished depressed from nondepressed subjects respectively, in this study. Depressed ($BDI > 12$) and nondepressed ($BDI < 6$) subjects completed a demographic questionnaire including loss and deprivation questions four

to six weeks later. Stress levels and history of loss and deprivation served as independent variables. The dependent variable was depression.

Research on the effects of catastrophes has suggested that high levels of stress can produce depression regardless of vulnerability or predisposition. Therefore the following hypotheses are presented.

Hypothesis 1 : Individuals with high stress levels show a greater incidence of depression than those who report low stress.

It has been postulated that in the absence of high stress, a more complex precipitant-vulnerability relationship exists in the onset of depression.

Hypothesis 2 : Among individuals rated as having experienced average amounts of stress, those who are depressed, more frequently show a history of childhood loss than those who are not depressed.

Frequently researchers compare incidence rates of parental loss in depressed individuals with those rates for either nondepressed individuals or the general population (usually obtained from census data) to show support for the theorized loss-depression link. This practice has been subject to severe methodological criticism. Gregory (1958) concluded that these studies were characterized by (a) com-

parisons between unlike samples, (b) unrepresentative samples due to selection, (c) chance errors in sampling, and (d) fallacies in deduction. In many of the studies using this method, several factors that influence adult mortality were not taken into consideration. For example, the probability that a child experiences the death of a parent is strongly influenced by social factors such as wars and epidemics which may make parental death more likely. Studies that do not control for the age of the depressed individual frequently find support for the loss-depression link, but given this methodological flaw these effects appear spurious.

Hypothesis 3 : Depressed individuals do not show a higher incidence of parental death than their nondepressed counterparts.

Research on the detrimental effects that deprivation experiences such as parental alcoholism, parental depression and other mental illness, have on a child's development suggest that these experiences too may render an individual more vulnerable to development of depression as an adult

Hypothesis 4 : Among individuals rated as having experienced average amounts of stress, those who are depressed more frequently show a history of deprivation experiences in childhood than those who are not depressed.

Object relations theory suggests that the more trauma sustained during critical developmental periods the less possible the development of stable object relations and the more vulnerable the adult will be to psychopathology. Research suggests that reports of poor relationships with parents as a child are also linked to adult depression (Jacobson, et. al., 1975).

Hypothesis 5 : Depressed individuals overall and in each stress group report higher numbers of traumatic experiences (including parental death, divorce, deprivation experiences, loss of another significant family member ie., sibling, and poor relationship with a parent) than do nondepressed individuals in a given group.

Much of the research on the relationship between childhood history of loss or deprivation and adult depression has been confined to the examination of depressed women. There is no conclusive evidence to suggest that the relationships found are specific to women, therefore no hypotheses regarding gender differences are presented. However, the effect of gender will be examined for all hypotheses and findings reported if they are significant.



CHAPTER III

METHOD

Subjects

Subjects were drawn from students enrolled in Introductory Psychology at Loyola University during the Spring semester of 1986. Participation in this project generated research credit toward course requirement. Two hundred and sixty subjects took part in the initial screening which included the measurement of depression using the Beck Depression Inventory (BDI) and the measurement of recent stressful life events using the College Schedule of Recent Experiences (CSRE). Of the 260 students screened, 49 students scored 13 or above on the BDI and were thus categorized as depressed. Thirty seven of these 49 students agreed to participate in the second half of the study for additional research credit. One hundred and two of the 260 students screened, scored five or below on the BDI and were designated as nondepressed. Fifty nine of these students participated in the second half of the study. Thus, the final sample of 96 subjects was comprised of 37 students classified as depressed and 59 students classified as nondepressed on the BDI. Approximately 45% of the final subjects

were male. There were approximately equal numbers of males and females in the depressed group (20 males, 17 females) but more females than males in the nondepressed group (23 males, 36 females). The ages of the subjects ranged from 18 to 28. The majority (42%) were 19 and 38% were 18. White subjects comprised 72.9% of the sample followed by 9.4% Hispanic, 9.4% Asian, and 8.3% Black. None of the subjects was married but one (1%) was separated. Three subjects reported being engaged (3.1%) but the vast majority of students reported being unmarried (95.8%). Almost seventy percent of the subjects were freshman, 20% sophomores, 8% juniors and 2% seniors. Thirty-five percent of the subjects lived with their family of origin, 60% in college residence halls, 4% in off-campus apartments and 1% with other relatives.

Materials

During the initial screening subjects were asked to complete a general consent form and a number of commonly used self report questionnaires in random order including those of interest to this investigator.

Measure of depression. The Beck Depression Inventory is a frequently used 21 item self-report measure of the severity of depressive symptoms (see Appendix A). The psychometric properties of the inventory were initially reported for psychiatric populations (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Beck, 1967) and more recently for

college student populations (Bumberry, Oliver & McClure, 1978; Hammen, 1980). Ranges of scores indicative of severity of depression have been reported by Beck et al. (1961). Individuals scoring between zero and nine are considered nondepressed by Beck's criteria and scores between 10-15, 16-23, and 24 and above correspond to ratings of mildly, moderately and severely depressed, respectively. The BDI's validity in samples of university students using psychiatric estimate of severity of depression as the criterion has been found to be .78 (Bumberry, Oliver & McClure, 1978).

Measure of stressful life events. As a measure of stressful life events, the College Schedule of Recent Events (CSRE) was used. The CSRE is modeled after the Holmes and Rahe (1967) Schedule of Recent Experience (SRE), a well validated and frequently used scale in stress research with adults. The CSRE (Appendix B) was developed by Anderson (1972) and was validated in the same fashion as the SRE. It includes forty-seven items relevant to college students and assigns each event a value between 22 and 87. This scale has been used in a number of other studies examining stress and other variables in college populations (e.g. Marx, Garrity & Bowers, 1975). The form used in this study was the same as that used in the study by Marx et al., (1975) and requests information about the events that occurred in the twelve months prior to participation in the study.

Measure of loss and deprivation and demographic data. Subjects who participated in the second part of the study were asked to complete a six page questionnaire. This included questions about the presence of childhood loss and deprivation experiences, including parental death, divorce, depression, alcoholism, and hospitalization for emotional problems. Subjects were also asked to provide basic personal data such as age, sex, ethnic background, current type of residence, and marital status. In addition they were asked to respond to a number of family of origin questions such as parents' marital status, number of siblings, relationship with parents growing up, and the presence of significant others such as grandparents in the home as a child. Filler questions concerning such topics as number of pets and college major were included (Appendix C).

Procedure

Subjects completed the Beck Depression Inventory and the College Schedule of Recent Events as part of a mass screening packet given out to interested students in their Introductory Psychology course. The screening packet contained other often used psychological self-report measures and questionnaires in random order in addition to those of

interest to this investigator. Students completed these packets at home and returned them to a drop off point in the Psychology Department office. Those wishing to participate in other studies for partial course credit signed a release form included in the packet allowing researchers to contact them by telephone.

Subjects receiving scores of thirteen or above or five and below on the BDI were telephoned and offered the opportunity to participate in the second half of this study. These subjects completed the demographics and loss questionnaire in groups of two to ten people between four and six weeks after the completion of the screening packet. The questionnaire was self explanatory and the investigator was available throughout the sessions to clarify questions. Subjects were informed that they were not required to participate and while thoughtful completion of the questionnaire was encouraged, they were free to terminate at any point. An unlimited amount of time was given to complete the questionnaire however almost all subjects finished within twenty minutes. Subject anonymity was protected through the use of coded questionnaires. Only the investigator had access to the coding key which was destroyed upon completion of the study. When all subjects in a given experimental session had completed the questionnaire, the experimenter explained briefly the purpose of the study and the hypotheses being

tested and answered questions about the investigation.

CHAPTER IV

RESULTS

Design

The final 96 subjects were divided into three groups - high stress, average stress, and low stress, on the basis of their scores on the CSRE. Cutoff scores for each group were established using scores obtained from the original sample of 260 subjects. Scores ranking in the top third were designated as high stress, those ranking in the bottom third were considered low stress and those in the middle third of the distribution as average stress. Approximately 35% of the subjects were ranked as having high stress levels, 33.3% had average stress levels and 31.3% fell in the low stress range. Almost 40% of males were fell into the low stress group while only 24.5% of the females did so. Among female subjects, 43.4% had stress scores rated as high and 25.6% of the males fell in the high stress group. As seen in Table 1, there were no significant differences between the means for males and females for depression scores. This was also true for stress scores and history of loss. Therefore groups

were not subdivided by gender.

Stress, Loss and Depression

Hypothesis 1 : Individuals with high stress levels show a greater incidence of depression than those who report low stress.

The hypothesis that the high stress group would contain a higher frequency of depressed subjects than would the low stress group was tested using a chi square analysis. A two (depressed versus nondepressed) by two (high versus low stress) table was formed to compare observed and expected frequencies. There was a significant difference between the observed and expected frequency distribution for the four cells $\{X^2(1) = 6.040, p < .014\}$. Significant differences between observed and expected frequencies for depressed subjects were not found between either high and average stress groups or low and average groups. However, as seen in Table 2, in the low stress group twenty percent of the subjects were depressed. In the high stress group fifty-three percent of the subjects were depressed. Thus hypothesis 1 was supported.

Hypothesis 2 : Among individuals rated as having experienced average amounts of stress, those who are depressed

TABLE 1

Mean BDI scores for each gender and depression group

	BDI SCORE					
	Depressed*		Nondepressed**		Overall	
	M	SD	M	SD	M	SD
ALL SUBJECTS	19.68	5.13	2.15	1.72	8.91	9.24
	(n=37)		(n=59)		(N=96)	
FEMALES	20.88	6.63	2.44	1.77	8.36	9.51
	(n=17)		(n=36)		(n=53)	
MALES	18.65	3.56	1.70	1.58	9.58	8.96
	(n=20)		(n=23)		(n=43)	

*BDI > 12

**BDI < 6

TABLE 2

Number of subjects in each stress and depression cell

		STRESS GROUP			
		Low	Medium	High	TOTAL
NONDEPRESSED*					
n		24	19	16	59
%		80%	59%	47%	61.5%
DEPRESSED**					
n		6	13	18	37
%		20%	41%	53%	38.5%
Mild					
n		2	5	1	8
%		7%	16%	3%	8.3%
Moderate					
n		3	7	13	23
%		10%	22%	38%	24%
Severe					
n		1	1	4	6
%		3%	3%	12%	6.2%
ALL SUBJECTS					
n		30	32	34	96
%		31.3%	33.3%	35.4%	100%

* BDI < 6

**BDI > 12

Mild BDI= 13-15
 Moderate BDI= 16-23
 Severe BDI>23

more frequently show a history of childhood loss than those who are not depressed.

There were 13 depressed and 19 nondepressed subjects in the average stress group. A chi square analysis was performed to determine whether history of loss was more frequent in depressed subjects within this group. Results were not significant for this or any other stress group or subjects as a whole. There were no differences when loss due to death were examined separately from loss due to divorce ($\chi^2(2) = 1.843$, n.s.). There was no differences between groups who had sustained the losses at different ages (0-5; 6-10; 11-14) overall and these results held for each stress group as well. The findings did not support hypothesis 2.

Hypothesis 3 : Depressed individuals do not show a higher incidence of parental death than their nondepressed counterparts.

Eighteen of the 96 subjects (18.8%) had sustained the loss of a caretaker through death, divorce or adoption before the age of 15. Eleven of these fell in the nondepressed group, thus 18.6% of the nondepressed subjects and

18.9% of the depressed subjects had experienced a loss. These small differences were not statistically significant. Nine percent of the subjects had experienced the death of a parent before the age of 15. However, 16.2% of the depressed subjects were parentally bereaved as children while only 6.7% of the nondepressed subjects had experienced the death of a parent during childhood. A chi square analysis indicates that this difference is not significant ($X^2(1) = .55$, n.s.). Results were similar for each stress group. Thus (null) hypothesis 3 was accepted.

Hypothesis 4 : Among individuals rated as having experienced average amounts of stress, those who are depressed, more frequently show a history of deprivation experiences in childhood than those who are not depressed.

It was hypothesized that deprivation experiences might also act as a vulnerability factor to depression and deprivation experiences would be more frequent among depressed subjects. Overall, individuals who were depressed were more likely to have had depriving experiences during childhood than those who were not ($X^2(1) = 10.627$, $p < .001$). In the average stress group deprivation was a significant predictor of depression as well ($X^2(1) = 9.4687$, $p < .0021$). This was not the case for either the high stress group

($X^2(1)=.04597$, n.s.) or the low stress group ($X^2(1)=2.20$, n.s.). There were no significant gender differences under any of the aforementioned conditions. Post hoc examination of the individual components of the deprivation variable revealed that, within the category of deprivation, alcoholism by one or both of the parents was not significantly more frequent in the depressed group, overall ($X^2(1)=3.0362$, $p < .0667$). However, depressed subjects were twice as likely to have a depressed mother as a depressed father and three times as likely to have an alcoholic father than an alcoholic mother. Parental depression, another component of deprivation was however, more frequent among depressed subjects ($X^2(1)= 5.946$, $p < .0148$). This relationship was also significant in the average stress group ($X^2(1)=9.468$, $p < .0021$) but was not more frequent in depressed subjects in either the high stress ($X^2(1)=2.503$, n.s.) or low stress ($X^2(1)=2.20$, n.s.) groups. Parental depression was significantly more frequent among depressed females ($X^2(1)= 4.194$, $p < .040$) but not among depressed males in this study ($X^2(1)=1.062$, n.s.). In summary, subjects who were depressed, more frequently reported a history of deprivation experiences. Further analysis of the data revealed that parental depression was more frequent among depressed individuals in the average stress group and more

frequent among depressed female subjects but not among male subjects, overall. These results are summarized in Table 3. Thus, hypothesis 4 was supported.

Hypothesis 5 : Depressed individuals overall and in each stress group report higher numbers of traumatic experiences (including parental death, divorce, deprivation experiences, loss of another significant family member ie., sibling, and poor relationship with a parent) than do nondepressed individuals in a given group.

Number of traumatic experiences sustained during childhood ranged from zero to five with a mean and standard deviation of .729 and 1.061 respectively. Overall, depressed individuals more frequently reported a higher number of traumatic experiences during childhood than did their nondepressed counterparts $\{X^2(5) = 15.816, p < .0074\}$. This did not hold true for the average or high stress groups. Number of traumatic experiences was the the only variable studied that differentiated between depressed and nondepressed subjects in the low stress group $\{X^2(5) = 12.025, p < .0172\}$. Thus hypothesis 5 was supported.

TABLE 3

Summary of childhood experiences that depressed subjects reported more frequently than nondepressed subjects.

	CHILDHOOD EXPERIENCE			
	Loss	Deprivation	Depressed Parent	Alcoholic Parent
All Subjects	--	**	*	--
Low Stress	--	--	--	--
Medium Stress	--	--	***	--
High Stress	--	--	--	--
Males	--	*	--	--
Females	--	*	*	--

-- nonsignificant

* $p < .05$

** $p < .01$

*** $p < .001$

CHAPTER V

DISCUSSION

Stress, Loss and Depression

This investigation examined the childhood experiences of loss and deprivation as potential vulnerability factors in the development of adult depression under varying levels of stress. Number of stressful life events were found to be significantly related to depression with those reporting high levels of stress significantly more likely to be categorized as depressed on the BDI than those reporting low levels of stress. Those reporting low levels of stress were significantly less likely to be depressed than those reporting high levels of stress. In the average stress group there was no significant difference between the number of subjects who were depressed and nondepressed. This finding is consistent with the large body of literature that supports the stress-depression link (e.g., Brown, 1974; Brown, 1979; Hudgens, 1974; Paykel, 1979 ; Paykel et al, 1971; Paykel et al, 1976). As in all other studies, not all of those with high levels of stress became depressed; therefore the vulnerability factors of loss and deprivation were

included to determine whether these were contributing to the development of depression in those in the average stress group.

Under average stress, where subjects were no more likely to be depressed than not, it was expected that history of loss experiences might differentiate between depressed and nondepressed individuals. Childhood loss experiences resulting from parental divorce or death appeared to play no role as a vulnerability factor to depression in this stress group or any other. Even in the high stress group where Brown and Cooper's (1977) findings would suggest that history of loss would be a factor, no significant results were found. This was also the case when loss through divorce and bereavement were examined as separate variables. This finding is consistent with that of Munro (1974) who found no significant differences in depression level between those who had been parentally bereaved and those whose parents had divorced. While some researchers (Brown, 1979; Berlinsky & Biller, 1982) suggest that characteristics of the parent or child (such as gender or age at which the loss was sustained) moderate the predisposing effects of loss, none of these variables examined in this study appeared to moderate the nonsignificant relationship found between loss, and depression. In addition, there

were no gender differences in the pattern of results for this loss/depression relationship. Differences that have been noted in the literature between the long term effects of the loss of a mother and that of a father were not able to be examined as only one of the subjects in this study was maternally bereaved before the age of fourteen. These findings that the examination of characteristics of the parent or child in combination with loss and stress factors do not modify the relationship between loss, stress and depression may be related to the lack of statistical power available with the relatively small numbers of subjects in this study rather than any real lack of effect.

These findings differ from those of Brown, Harris & Copeland (1977) who found that loss was a significant predictor of depression for the individual under high stress. A number of methodological differences may have contributed to the lack of congruence between the present findings and those of Brown and his colleagues. The first of these differences can be found when comparing the measurement of some of the dependent and independent variables. Brown, et al. used a semi-structured interview to assess stress level and based the stress score on interviewer ratings of the "contextual threat" of the stressful life event and whether the event could be considered a long term or short term stressor. The CSRE used in this study is a self-report measure

developed for use with a college population. It is unclear whether stress is defined in the same manner for both investigations. In addition, the measurement of depression in this study also differed from that used by Brown and his colleagues. In the London study, a woman was considered to be depressed if she had been given a psychiatric diagnosis of primary depression. In the present study, the Beck Depression Inventory, a self-report measure of depressive symptoms and cognitions was used. While cutoffs for both the depressed ($BDI > 13$) and nondepressed ($BDI < 5$) groups were more stringent than those generally used in research in an attempt to address some of the concerns raised in the literature about the use of the BDI with college populations (Gotlib, 1984), it is possible that the definition of depression was different for each study.

Perhaps the most fundamental difference between this study and that of Brown's was the populations used to study the stress-loss-depression relationship. In Brown's study, 76 women receiving psychiatric care for depression as inpatients and outpatients in south London were used as subjects. The control group of nondepressed women consisted of 458 women selected at random from the same area who did not appear to be clinically depressed and had no recent psychiatric hospitalizations for depression. Both the control group and the depressed groups were heterogeneous with

respect to age, marital status and other demographic characteristics. In addition, variables such as marital status were found to be related to the severity of the depression and exerted their influences independently from loss and stress status.

In the present study, the population included both males and females. In addition, both the depressed and nondepressed groups were relatively homogeneous with respect to age, marital status, ethnic background and place of residence. The use of this population, while not as representative of the population at large, allowed the researcher to control for sources of variance which can contribute to confounded results in a highly heterogeneous population. No known studies exist in the literature exploring this relationship in a college population. Thus, it is difficult to discern whether the differences found are related to population characteristics

Finally, the level of pathology was probably lower in this adequately functioning college population. Only one of the subjects in this study had been hospitalized for an emotional problem during the five years prior to the study (suicide attempt) and one had been hospitalized for anorexia six years prior to the study. Therefore it is probable that the depressions experienced by these students were significantly less debilitating than those of the women in Brown's

study of whom half were hospitalized. Perhaps the strong relationship that was found between loss, stress and depression is best seen in more severe depressions. In addition, this study was unable to replicate the especially significant finding about maternal bereavement before the age of eleven because only one of the subjects in this study was maternally bereaved.

Stress, Deprivation and Depression

While history of overt loss due to separation does not appear to be related to depression in this study, highly significant differences emerged when childhood deprivation was examined as a vulnerability factor in the stress-depression relationship. Overall, history of depriving experiences were much more frequent in depressed subjects than in their nondepressed counterparts. This significant relationship held for the average stress group but was not a significant factor in either the low or high stress groups. Thus it appears that stress level may be a better predictor of depression under high or low levels of stress, but it is the vulnerability to depression associated with depriving childhood experiences that may account for depression under average amounts of stress. In addition, particular types of

experiences such as parental depression and alcoholism were more frequent in the depressed group as a whole. Pitts et al., (1965) and Jacobson et al. (1975), found that alcoholism was more prevalent among the fathers and depression more common among the mothers of the depressed individuals that they studied. This study found this also to be the case, with depressed individuals twice as likely to have a depressed mother as a depressed father and three times as likely to have an alcoholic father than an alcoholic mother. This is consistent with the research that suggests that genetic predisposition is a factor or that the behavior modeled by parents (depression) is reinforced in their children (Akiskal & Kinney, 1973). However, the relationship between parental depression and depression was highly significant for the women in this study while it was not a factor for the men. This suggests that perhaps depression in the same gender parent renders an individual more vulnerable to this disorder as adult through the effects of modeling, identification or other mechanisms such as heredity. This gender difference is an important finding as most of the work done this area on both overt loss and deprivation has been done exclusively on women, yet generalized, theoretically, to men. In general, these findings, that physical separation from a caretaker as a result of death or divorce does not appear to relate to depression but that depriving experi-

ences are more frequent in depressed individuals is consistent with the findings of Jacobson et al. (1975) and suggests that the experience of "loss" may be as much an emotional or cognitive one as a physical event.

Number of Traumas and Depression

While a history of any traumatic experience was more frequent in depressed subjects, depressed subjects also showed a higher frequency of multiple traumas. While this variable did not appear to have any mediational effect in the high stress group, it was the only variable that was able to differentiate between the small number of depressed individuals under low stress and their nondepressed counterparts. This finding suggests that psychological and developmental issues such as object representation may be adversely affected by these experiences and that the less of an opportunity a child has to develop "normally" the more tenuous the individual's the capacity to cope with "life's vicissitudes" as an adult, even those considered minimally stressful in this study.

Summary and Conclusions

While the expected link between early actual separation of a child from her or his caretaker and depression under varying conditions of stress was not observed, the present study did find evidence for the mediating factor of childhood deprivation or emotional separation in the development of depression as a young adult. This suggests that it is not necessarily the overt loss events that affect the psychological variables that are postulated to lead to depression, but rather, it is the emotional loss that may result from having impaired caretakers that is perhaps predisposing. While, indeed emotional losses can occur when parents are divorced or die, they also may occur in what appears to be an intact family. This is frequently noted in an anecdotal or empirical manner with psychiatric populations, but this study suggests that it plays a role in the vulnerability to depression for relatively well functioning single young adults, both male and female. The findings in this study are consistent with Berlinsky & Biller's (1982) conclusions that it is the circumstances surrounding the overt loss that determine whether an individual is adversely affected by separation from a parent as a result of death or divorce. They note that factors such as family support systems, the closeness of the relationship between the child

and the lost parent, the environmental changes that occur subsequent to the loss and the reason for death or divorce, among others are as important as the loss itself in determining the longterm outcome for the child. They suggest that most researchers ask oversimplified questions about these complex relationships and that this is the reason for the plethora of discrepant findings. When multiple environmental, family and child specific variables are considered, distinct relationships between variations on these factors and behavioral outcomes are seen.

Clearly, no causal inferences can be made about the relationship between stress, and history of loss or deprivation in the development of depression on the basis of the results of this study. Instead of providing answers, the findings of this investigation are a reminder that the relationship between childhood events and adult outcomes are complex indeed. The results suggest that it is not enough to assess whether an event such as a death or divorce occurred but that the circumstances surrounding the event and that the less observable emotional losses linked to these events and others may offer more information about the etiology of the disorder. Even if it becomes clear that a history of certain types of occurrences interact with current specific events to produce depression, we will not know the whole story about the etiology of depression until the

mechanisms by which the depression is produced are understood.

Limitations of the Present Research and Directions for Future Study

This study, while attempting to investigate the relationship between loss, stress and depression in a more methodologically sound manner than that of much research currently in the literature, suffers from several limitations. The first of these are the liabilities inherent in the use of self-report measures. While the two standardized measures used (BDI, CSRE) have established psychometric properties and have been well researched and validated, each of the scales' items remains subject to considerable subjective interpretation. This is a problem in the study of these variables but as yet, no better validated measures of these constructs have been developed for general use in research. There is some evidence that the BDI is sensitive to general psychopathology in college students in addition to depression (Gottlib, 1984) and it is unclear whether the results obtained in this study are specific to depression and whether depression in college students is qualitatively similar to clinical depression. In addition, there is evidence that suggests that mood has an effect on the recall of events (M. Acklin, personal communication, January 27, 1987). It is not clear

whether depression affected the recall of life events on the CSRE or on the loss questionnaire. This research was also limited in that possible mediational variables such as object representational ability and self-esteem were not assessed. These may have provided clues as to the nature of the relationships between stress, loss and depression.

Although stress was found to have the expected relationship to depression, the design of the study did not allow inferences about whether stress directly precipitates a depressive episode. The presence of nondepressed individuals in the high stress group, which could not be accounted for by the proposed vulnerability factors of loss and deprivation suggests that another moderator variable may be attenuating the effects of stress. Factors that may moderate the development of vulnerability to depression in individuals with histories of childhood loss or depression have been discussed, but circumstances mediating the effects of stress may have also played a role in the findings of this investigation. Lin, Woelfel & Light (1986, p. 17) propose that social support defined as "... the perceived or actual instrumental and/or expressive provisions supplied by the community, the social network, and the confiding partners" has the effect of buffering individuals from stress and making the development of depression less likely. They also suggest that social support may have an effect on the

expression of depressive symptoms as well.

Research seeking answers to the complex question of how the variables of loss, stress and depression are related would first require valid and accurate measurement of the variables of depression and stress. Until more precise quantifications of these elusive constructs are developed, multiple measures and stringent criteria would need to be employed. Cross-sectional examinations of these relationships are of limited value. Longitudinal studies using large heterogeneous populations and carefully matched control groups would be best suited to answer questions about how these variables are related. Research following children ideally from before the occurrence of the hypothesized predisposing event through adulthood with detailed assessment of a large number of situational and characterological factors would help elucidate the roles played by the environment and the individual in the relationship between stress, loss, and depression.

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APPENDIX A

BDI

CODE # _____

This is a questionnaire. On the questionnaire are groups of statements. Please read the entire group of statements in each category. Then pick out the one statement in that group which best describes the way you feel today, that is, right now! Circle the letter on the answer sheet that corresponds to the statement you have chosen. If several statements in the group seem to apply equally well, circle each one.

1.
 - a. I do not feel sad
 - b. I feel sad or blue
 - c. I am blue or sad all the time and I can't snap out of it
 - d. I am so sad or unhappy that I can't stand it
2.
 - a. I am not particularly pessimistic or discouraged about the future
 - b. I feel discouraged about the future
 - c. I feel I have nothing to look forward to
 - d. I feel that the future is hopeless and that things cannot improve
3.
 - a. I do not feel like a failure
 - b. I feel I have failed more than the average person
 - c. As I look back on my life, all I can see is a lot of failure
 - d. I feel I am a complete failure as a person (parent, husband, wife)
4.
 - a. I am not particularly dissatisfied
 - b. I don't enjoy things the way I used to
 - c. I don't get satisfaction out of anything anymore
 - d. I am dissatisfied with everything
5.
 - a. I don't feel particularly guilty
 - b. I feel bad or unworthy a good part of the time
 - c. I feel quite guilty
 - d. I feel as though I am very bad or worthless
6.
 - a. I don't feel I am being punished
 - b. I have a feeling that something bad may happen to me
 - c. I feel I am being punished or will be punished
 - d. I feel I deserve to be punished
7.
 - a. I don't feel disappointed in myself
 - b. I am disappointed in myself
 - c. I am disgusted with myself
 - d. I hate myself
8.
 - a. I don't feel I am any worse than anybody else
 - b. I am critical of myself for my weaknesses or mistakes
 - c. I blame myself for my faults
 - d. I blame myself for everything bad that happens
9.
 - a. I don't have any thoughts of harming myself
 - b. I feel I would be better off dead
 - c. I have definite plans about committing suicide
 - d. I would kill myself if I had the chance

10.
 - a. I don't cry any more than usual
 - b. I cry more now than I used to
 - c. I cry all the time now. I can't stop it
 - d. I used to be able to cry but now I can't cry at all even though I want to
11.
 - a. I am no more irritated now than I ever am
 - b. I get annoyed or irritated more easily than I used to
 - c. I feel irritated all the time
 - d. I don't get irritated at all at the things that used to irritate me
12.
 - a. I have not lost interest in other people
 - b. I am less interested in other people than I used to be
 - c. I have lost most of my interest in other people and have little feeling for them
 - d. I have lost all of my interest in other people and don't care about them at all
13.
 - a. I make decisions about as well as ever
 - b. I try to put off making decisions
 - c. I have great difficulty in making decisions
 - d. I can't make any decisions at all anymore
14.
 - a. I don't feel I look any worse than I used to
 - b. I am worried that I am looking old or unattractive
 - c. I feel that there are permanent changes in my appearance and they make me look unattractive
 - d. I feel that I am ugly or repulsive looking
15.
 - a. I can work about as well as before
 - b. It takes extra effort to get started at doing something
 - c. I have to push myself very hard to do anything
 - d. I can't do any work at all
16.
 - a. I can sleep as well as usual
 - b. I wake up more tired in the morning than I used to
 - c. I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
 - d. I wake up early every day and can't get more than 5 hours sleep
17.
 - a. I don't get any more tired than usual
 - b. I get tired more easily than I used to
 - c. I get tired from doing anything
 - d. I get too tired to do anything
18.
 - a. My appetite is no worse than usual
 - b. My appetite is not as good as it used to be
 - c. My appetite is much worse now
 - d. I have no appetite at all anymore
19.
 - a. I haven't lost much weight, if any, lately
 - b. I have lost more than 5 pounds
 - c. I have lost more than 10 pounds
 - d. I have lost more than 15 pounds

20. a. I am no more concerned about my health than usual
b. I am concerned about aches and pains or upset stomach or constipation
c. I am so concerned with how I feel or what I feel that it's hard to think of much else
d. I am completely absorbed in what I feel
21. a. I have not noticed any recent change in my interest in sex
b. I am less interested in sex than I used to be
c. I am much less interested in sex now
d. I have lost interest in sex completely

APPENDIX B

Please place a check next to all of the things that have happened in your life in the past year.

- Entered college.
- Married.
- Had either alot more or alot less trouble with your boss.
- Held a job while attending school.
- Experienced the death of a spouse.
- Experienced a major change in sleeping habits.(sleeping alot more or alot less, or a change in part of the day when asleep)
- Experienced the death of a close family member.
- Experienced a major change in eating habits.(alot more or less food intake,or very different meal hours or surroundings)
- Made a change in or a choice of a major field of study.
- Had a revision of your personal habits (friends, dress, manners, associations.)
- Experienced the death of a close friend.
- Have been found guilty of minor violations of the law. (traffic tickets, jay walking etc.)
- Have had an outstanding personal achievement.
- Experienced pregnancy or fathered a pregnancy.
- Had a major change in health or behavior of a family member.
- Had sexual difficulties.
- Had trouble with in-laws.
- Had a major change in number of family get-togethers. (alot more or alot less)
- Had a major change in financial state.(alot worse off or alot better off than usual)
- Gained a new family member.(through birth, adoption, older person moving in etc.)
- Changed your residence or living conditions.
- Had a major conflict in, or change of values.
- Had a major change in church activities. (alot more or less)

- ___ Had a marital reconciliation with your mate.
- ___ Were fired from work.
- ___ Were divorced.
- ___ Changed to a different line of work.
- ___ Had a major change in number of arguments with spouse (either a lot more or a lot less than usual).
- ___ Had a major change in responsibilities at work. (promotion, demotion, lateral transfer.)
- ___ Had your spouse begin or cease work outside the home.
- ___ Had a major change in working hours or conditions.
- ___ Had a marital separation from your mate.
- ___ Had a major change in usual type and/or amount of recreation.
- ___ Had a major change in the use of drugs. (a lot more or less)
- ___ Took a mortgage or loan LESS than \$10,000. (such as purchase of a car, TV, school loan etc.)
- ___ Had a major personal illness or injury.
- ___ Had a major change in use of alcohol. (a lot more or less)
- ___ Had a major change in social activities.
- ___ Had a major change in the amount of participation in school activities.
- ___ Had a major change in the amount of independence and responsibility. (for example: budgeting time)
- ___ Took a trip or vacation.
- ___ Were engaged to be married.
- ___ Changed to a new school.
- ___ Changed dating habits.
- ___ Had trouble with school administration (instructors, advisors)
- ___ Broke, or had broken a marital engagement or steady relationship.
- ___ Had a major change in self-concept or self-awareness.

APPENDIX C

Please answer the following questions by either circling one of the response choices or by writing your response in the space provided. Please respond as accurately and completely as possible and explain any circumstances that you feel are not addressed sufficiently by the options provided. Extra space on the last page of the questionnaire is provided for that purpose.

1. Sex male female
2. Age _____
3. Racial/Ethnic Group
 black white asian hispanic other _____
4. Marital Status
 unmarried engaged married separated divorced widowed
5. College Major _____
6. Year in College
 freshman sophomore junior senior other _____
7. Where do you live?
 dorm with parent(s) off-campus apt. other _____
8. How many brothers and sisters (siblings) do you have? _____
9. Please list your siblings from oldest to youngest, including their sex, age, and relationship to you (adopted, step/half-sibling) if applicable. DO NOT INCLUDE YOURSELF.

#	Sex	Age	Adopted?	Step-sibling?	Half-sibling?
1	M F	_____	Y N	Y N	Y N
2	M F	_____	Y N	Y N	Y N
3	M F	_____	Y N	Y N	Y N
4	M F	_____	Y N	Y N	Y N
5	M F	_____	Y N	Y N	Y N
6	M F	_____	Y N	Y N	Y N
7	M F	_____	Y N	Y N	Y N
8	M F	_____	Y N	Y N	Y N
9	M F	_____	Y N	Y N	Y N
10	M F	_____	Y N	Y N	Y N

10. Are all of your siblings living? yes no
 IF NO
 How old were YOU when he/she died? _____
 Please put a star(*) next to the number of this sibling
 in the chart above.
11. Which sibling did you get along with best as you were growing up? _____ (number from chart above)
12. Which sibling do get along with best now? _____ (number)

13. Did you and all of your siblings live in the same home during your childhood? Yes No

IF NO - Please explain WHERE each sibling lived and YOUR age when each ENTERED and/or LEFT your home. Use the numbers from the chart to refer to a specific sibling.

14. Were you adopted? Yes No

IF YES

How old were you when adopted? _____

Where were you living before adopted? _____

The following questions are about your mother and father. If you were not raised by your biological parents these questions refer to the people who raised you. If you are unsure how to answer these questions, please explain IN DETAIL the circumstances surrounding your upbringing in the additional space provided at the end of this questionnaire. Please include the significant adults in your life as a child, YOUR AGE when these people entered and left your life, and the circumstances surrounding their entrance and departure in your description.

15. Is your mother living? Yes No

IF NO

How old were YOU when she died? _____

Please list the people with whom you were living
--at the time of her death _____

--after her death _____

Were there any major changes in your lifestyle after her death? (father hospitalized, change of residence or school, siblings split-up, lower standard of living etc.) Explain.

16. Is your father living? Yes No

IF NO

How old were YOU when he died? _____

Please list the people with whom you were living
--at the time of his death _____

--after his death _____

Were there any major changes in your lifestyle after his death? (mother hospitalized, change of residence or school, siblings split-up, lower standard of living etc.) Explain.

17. If either parent has died, did the surviving parent remarry? Yes No N/A

IF YES How old were YOU at the time of remarriage? _____
Were there any changes in your lifestyle as a result of the marriage? Explain. _____

18. Are your parents still married and living together? Yes No

A. IF NO

Are they - separated divorced widowed

B. IF PARENTS ARE SEPARATED OR DIVORCED

How old were YOU when they split? _____

With whom did you live after the split?

mother father other _____

Did all of you siblings live in the same home after the split? Yes No

IF NO - Explain _____

Were there any major changes in your lifestyle as a result of the split?(change of residence or school, additional people living in home - grandparents, housekeeper etc., lower standard of living, etc.) Explain. _____

C. IF PARENTS ARE DIVORCED

After the divorce did your mother remarry? Yes No

IF YES How old were YOU at the time of remarriage? _____

After the divorce did your father remarry? Yes No

IF YES How old were you at the time of remarriage? _____

19. How often, growing up, did you have contact with your mother?

_____ Lived with her full-time.
_____ Lived with her part-time. (_____ per _____)
_____ Saw her _____ times per week
_____ Spoke with her on the phone _____ times per week.
_____ Contact by letter _____ times per _____.
_____ Had no contact with her.
_____ Other _____

20. How often, growing up, did you have contact with your father?
 Lived with him full-time.
 Lived with him part-time. (_____ per _____)
 Saw him _____ times per week.
 Spoke with him on the phone _____ times per week.
 Contact by letter _____ times per _____.
 Had no contact with him.
 Other _____

21. How would you rate your relationship with your mother as you were growing up?
 very good
 good
 fair
 poor
 other _____
22. How would you rate your relationship with your father as you were growing up?
 very good
 good
 fair
 poor
 other _____
23. Were either of your parents alcoholics as you were growing up?
 mother father both neither
24. Was either parent ever hospitalized due to an emotional problem?
 mother father both neither
 How old were YOU at the time? _____
25. Was either parent pretty depressed much of the time as you were growing up?
 mother father both neither
26. Have you ever been hospitalized due to an emotional problem?
 No
 Yes How old were you at the time? _____
 Briefly describe _____

27. Have you ever owned any pets? Yes No
 dog(s)
 cat(s)
 bird(s)
 fish
 hamster, gerbil, etc.
 rabbit(s)
 other _____

28. Are you currently on any medications? Yes No
Please list. _____

29. Were there any people, other than your parents or siblings,
that lived with you for more than six months as you were
growing up? Yes No

IF YES

Please describe their relationship to you, the circumstances
under which they entered and left your home and YOUR ages
during their stay and at their departure. _____

PLEASE USE THE SPACE BELOW (AND THE BACK IF NEEDED) FOR ADDITIONAL
EXPLANATIONS AND CLARIFICATION OF RESPONSES. PLEASE LIST THE
QUESTION NUMBER WITH YOUR RESPONSE.

APPROVAL SHEET

The thesis submitted by Kim M. Dell'Angela has been read and approved by the following committee :

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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

4-13-57
Date


Director's Signature