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**Depression and dysfunctional attitudes of parents and their children**

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**The University of Arizona, 1987**

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DEPRESSION AND DYSFUNCTIONAL ATTITUDES  
OF PARENTS AND THEIR CHILDREN

by

Walter Todd Bartko

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A Thesis Submitted to the Faculty of the  
SCHOOL OF FAMILY AND CONSUMER RESOURCES  
In Partial Fulfillment of the Requirements  
For the Degree of  
MASTER OF SCIENCE  
In the Graduate College  
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## ABSTRACT

Researchers have recently begun to explore the etiology of depression. Beck's cognitive approach postulates that when information is organized via negative cognitive structures known as schemata, cognitive errors are made, which then produce a predominantly negative view of oneself and the future, leading to depression. This study attempts to explore the role of modeling in the development of negative schemata. Measures of depression and dysfunctional attitudes were obtained from 10 depressed and 10 nondepressed adolescents along with the mothers of these 20 subjects. Dysfunctional attitudes have been postulated to represent the operation of negative schemata. Contrary to the modeling hypothesis, Pearson Product-Moment correlations revealed an inverse relationship (not statistically significant) between the adolescents' and their mothers' levels of depression across both groups of subjects. Additionally, correlations between adolescents' and their mothers' dysfunctional attitude scores were quite discrepant between the two groups. Suggestions for further research are discussed.

## INTRODUCTION

Depression or melancholia has been recognized for thousands of years as one of the most common and, at times, most devastating mental illnesses (Levitt, Lubin, & Brooks, 1983). In recent years, the empirical literature on the psychology of depressive states has burgeoned. Numerous authors (Beck, 1967; Carney, Roth, & Garside, 1966; Paykel, 1977) have documented the symptomatology of depression, primarily for diagnostic and treatment purposes. More recently, investigators have begun to look closely at the essential nature of this disorder. Much of the stimulus for this movement has come from the theoretical and empirical work of Martin Seligman (1974, 1975), Peter Lewinsohn (1974), J. C. Coyne (1976), and Aaron Beck (1967, 1974). Today, the literature is dominated by studies addressing Seligman's learned helplessness model, Lewinsohn's extinction hypothesis, Coyne's interactional description, and Beck's cognitive theory. Of these four models, Beck's formulation most completely explores the etiology of this disorder and also defines the variables which predispose an individual to depression.

Beck's cognitive approach (1967) conceives of depression as a disorder of thinking. The essence of this theory is that the way people feel is determined by how they think. Changes in mood are not the result of actual events, but rather how these events are perceived. Beck draws upon three cognitive concepts to account for depression: (1) schemata, or cognitive structures which help to classify and organize information, (2) cognitive errors, which are systematic distortions of

perception and memory, and (3) the cognitive set, a general view of oneself and the future. Beck (1979) has argued that schemata are developmentally early constructions formed from experiences in childhood and that the contents of these schemata correspond to the individual's attitudes, beliefs, and values. Further, it is the existence of negative schemata (characterized by maladaptive or dysfunctional attitudes) which predispose an individual to depression. Beck (1979) postulates that when information is organized via negative schemata, cognitive errors are made, which then produce a predominantly negative cognitive set, leading to depression. Beck (1979) postulates that the schemata which are active in depression are previously latent structures that are activated when the person is confronted by a stressful situation. Once activated, the depressionogenic schemata gradually replace more appropriate ways of organizing and evaluating information.

Yet Kovacs and Beck (1978) point out that the notion of stressful events activating negative schemata probably only accounts for a small number of all depressed persons. Kovacs and Beck (1978) further suggest that negative or maladaptive schemata may develop via modeling and social identification. In other words, a child may develop negative schemata through observation of a parent whose own negative schemata have resulted in negative and absolute types of thinking (Kovacs & Beck, 1978).

Since the role of modeling or observational learning in depression has not been empirically examined, this study will attempt an initial exploration of the relationship between parents' cognitive

structures and depression and their children's cognitive structures and depression.

## REVIEW OF LITERATURE

### The Cognitive View of Depression

It is well established that the cognitive content and functioning of depressed individuals differ from those of nondepressed persons and represent a consistent negative bias (Beck, 1976; Coleman, 1978; Hammen & Krantz, 1976; Hollon & Kendall, 1980; Keller, 1983; Kovacs & Beck, 1978; Norman, Miller, & Klee, 1983). Numerous empirical studies have identified some of the unique characteristics of depressives' cognitions. These include: (1) attention to negative details, (2) memory recall that is negatively biased, (3) distorted temporal experience, (4) limited future time perspective, (5) dreams with predominantly negative themes, and (6) distinct semantic "habits" (i.e., vague, qualified, and evaluative speech patterns). These characteristics suggest that there is a direct relationship between cognitions or thoughts and depression.

That depressed individuals selectively attend to negative details is illustrated by two studies. First, Weintraub, Segal, and Beck (1974) devised a set of incomplete stories, each accompanied by four sets of sentences or response options. The response options reflected degrees of expected discomfort, expected failure, negative interpersonal relationships, and negative self-concept. Subjects were instructed to imagine themselves as the principle character of the stories and complete each story by choosing one response option. The stories and a self-rated mood checklist were administered five times over a two month interval to thirty male undergraduate subjects. The

results indicated that depressed affect was associated with selection of "negative" story completion choices. The authors concluded that there is a unified, negative cognitive content that is associated with depressed mood.

A similar story-completion task was used in a study by Hammen and Krantz (1976). Thirty-three depressed women and 34 nondepressed women listened to tape-recorded segments of role-played statements of concerns which clients commonly make to therapists. Subjects were then asked to select a response as if they were the therapist. Response options included degrees of self-concept, optimism/pessimism, and expectations. Results indicated that compared to nondepressed subjects, depressed subjects selected significantly more depressed-distorted responses (low self-concept, pessimism, and negative expectations). These authors concluded that the response patterns of the depressed subjects represented dysfunctional information-processing strategies that may serve to perpetuate if not enhance the feelings of depression and hopelessness.

Recall is also characteristically skewed in depression. Several studies indicate that depressed individuals selectively recall material with negative content at the expense of neutral or positively toned material. DeMonbreun and Craighead (1977) had 48 depressed and nondepressed male subjects view 80 sets of three slides. The first slide in each set showed a 3-letter nonsense syllable that was projected out of focus for one-half second. The second slide revealed 3 sets of nonsense syllables. The subject was instructed to select the nonsense syllable that appeared on the second slide. After a selection was made,

a third slide appeared which provided the subject with feedback about the accuracy of his selection. The results indicated that depressed subjects recalled having received less positive feedback than did the control subjects. The researchers concluded that the cognitive processes of depressed individuals distort environmental feedback. Further, they suggested that this distortion does not occur at the point of stimulus perception but rather that there is a cognitive transformation of the environmental input. These findings were replicated by Nelson and Craighead (1977).

Wener and Rehm (1975) studied 96 female subjects separated into two groups on the basis of initial level of depression. Half of the subjects were randomly assigned to either a high or a low reinforcement condition. In each condition, subjects were shown a stimulus word and were instructed to say aloud the word which "most people" would associate with it. Subjects in the high reinforcement condition received feedback that they had given the correct responses on 4 out of every 5 trials. Those in the low reinforcement condition were led to believe that they were correct on only 1 of 5 trials. It was found that subjects who were initially more depressed underestimated the amount of positive feedback they received.

Lastly, Lloyd and Lishman (1975) and Lishman (1972) have reported empirical data that depressive recall is biased toward negatively-toned material and the extent of negative recall is proportional to the severity of the depression. These studies all indicate that depressed individuals selectively recall material with negative rather than neutral or positive content.

Several studies have documented that distorted temporal experience is characteristic of depressives' cognitions (Dilling & Rabin, 1967; Stuart, 1962; Beck, Kovacs, & Weissman, 1975). Dilling & Rabin (1967) compared depressed, schizophrenic, and normal subjects on measures of future time perspective, time perception, and time orientation. Future time perspective was measured by reading to each subject 10 common life events that would be likely to occur to an American male or female. Subjects were then asked to indicate how old they might be when each event happened to them. Time perception was assessed by simply asking the subjects at two points during the experimental interview how much time had elapsed since the beginning of the interview. Time orientation was measured by asking subjects to tell a story about each of 4 pictures. The stories were then rated by the experimenter as either past, present, or future oriented. The results of the experiment showed that depressives, compared to both schizophrenics and normals, have a more limited future perspective, estimate time less accurately, and are less future oriented. The researchers concluded that temporal experience is significantly affected in depression.

These results support earlier work by Stuart (1962) who assessed future time perspective by means of semantic-differential ratings of the concept of "the future." She found a highly significant relationship between depression and reduced or constricted future outlook. These findings are also consistent with the work of Beck, Kovacs, and Weissman (1975) which suggests that a negative view of the future is a strong correlate of depression.

The dreams of depressed persons have also been found to differ from those of nondepressed individuals. Beck and Hurvich (1959) studied the dreams of six pairs of depressed and nondepressed psychotherapy patients. The pairs were matched on the basis of age, marital status, and severity of illness. An independent evaluator rated the dreams for thematic content. For the 240 dreams rated, it was found that depressed patients had significantly more dreams in which the dreamer was rejected, abandoned, punished, ill, undesirable, and ugly. These findings were later replicated using a sample of 219 patients (Beck & Ward, 1961).

In another study, Hauri (1976) collected dreams in a sleep laboratory from 11 patients who had recovered from serious depression and 11 normal control subjects. Ratings of the thematic content of the dreams revealed that even the dreams of recovered patients showed a preponderance of negative themes not found in the dreams of control subjects.

In a study of the speech tendencies of depressed patients, Andreasen and Pfohl (1976) tape-recorded speech samples from 46 depressed and nondepressed subjects. The speech samples were subject's responses to questions such as "what are you like," or "tell me about your family." The researchers measured the frequency of grammatical elements and divided them into 7 major classes and 26 subclasses. Results indicated that depressed patients used more state-of-being verbs (be, become, and seem), modifying adverbs (rather, very), first-person pronouns (I, we), and personal pronouns (you, they) than did nondepressed subjects. The authors concluded that the speech of

depressed individuals tends to be vague and qualified and to show considerable self-preoccupation.

Similarly, Stuart (1962) found that the semantic tendencies of depressives correlated with evaluative rather than classificatory associations. For example, depressed subjects tended to associate the word apple with "sweet" (evaluation) rather than with the word "fruit" (classification). Depressives also preferred associations like "dirty" and "valuable" for objects such as coal and dictionary, respectively. Thus, depressed subjects, unlike nondepressed subjects, consistently chose subjective rather than objective semantic meanings.

All of these studies support the notion that there is a direct relationship between cognition and negative affect. The question is then raised: Which of these--cognition or affect--causes the other? Beck (1967) believes that cognition determines affect. He argues that the nature and characteristics of thinking and resultant conclusions determine what people feel and do and how they act and react. More specifically, it is negative cognitions which cause depression (Beck, 1967).

Several studies have demonstrated that affect can be induced in experimental settings by cognitively manipulating the focus of attention. Velten (1968) examined the effect of self-referent statements on mood in a sample of college students. He found that after reading statements that progressed from neutral to depressing content, normal subjects' moods became significantly depressed as defined by self-report and behavioral measures. These findings were replicated in a study by Hale and Strickland (1976).

Coleman (1975) had 140 female college students read either positive or negative self-evaluative statements. Results revealed that the procedure produced significant differences in levels of elation and depression, consistent with the content of the task.

In a study designed to investigate the physiological changes which accompany sadness and humor, Averill (1969) had subjects view a sadness-inducing film, a comedy film, or a control film. He found that the stimulus films were indeed effective in eliciting sadness and humor.

Finally, Ludwig (1975) found that depressed mood could be induced in college women. Fifty-two subjects selected for absence of moderate or severe depression were given feedback about a personality report which they had completed. Subjects were told that their psychological tests revealed that they were: (1) highly creative and mature, (2) immature and lacking creativity, or (3) no information about creativity and maturity was given. Subjects who received feedback that they were immature and uncreative showed a significant increase in depressed mood, relative to the other groups.

Blaney (1977) has proposed that these mood induction studies have their effects by focusing the individual's attention on available negative information. Therefore, their success in influencing affective states supports the notion that depression has a cognitive source. These studies, as well as all of the other research cited thus far, support the view that depressives differ from nondepressives in terms of cognitive content, and additionally, that negative cognitions are strongly correlated with depression.

### The Organization of Cognitive Content in Depression

In everyday life, variation in ideas and behaviors is the rule rather than the exception. In any situation, an individual has a number of alternatives as to which aspects of the situation to extract and how to combine them into a coherent pattern. Different people react differently to specific situations and may reach very dissimilar conclusions. However, a particular individual tends to show consistencies in the way he or she responds to similar types of events. Such consistent or repetitive patterns of responding may be seen as manifestations of cognitive organizations or structures (Neisser, 1977).

Cognitive structures have been postulated by a number of theorists to account for the observed regularities in behavior. Bruner's "coding systems" (Bruner, Goodnow, & Austin, 1956), Kelly's "personal constructs" (Kelly, 1955), Rapaport's "conceptual tools" (Rapaport, 1951), and Piaget's "schemata" (Piaget, 1948) are example of such structures.

According to Piaget (1948), a schema is an organized representation of prior experience. It allows a person to screen, code, and assess both internal and external stimuli and then decide on a course of action. On the basis of these schemata, the individual is able to orient himself in relation to time and space and to categorize and interpret his experiences in a meaningful way (Harvey, Hunt, & Schroder, 1961). Schemata are used to classify stimuli that range from simple perceptual configurations to complex, stepwise reasoning processes. Further, since schemata are structures, they may be

characterized as flexible or inflexible, open or closed, permeable or impermeable, and concrete or abstract (Inhelder & Piaget, 1969). Yet the most important characteristic of schemata relative to depression is their content, which is usually in the form of a generalization corresponding to the individual's attitudes, goals, expectations, and values (Beck, 1967).

Beck (1967) has postulated that the schemata which are active in depression are characterized by chronic, negative misconceptions, unrealistic goals and expectations, and maladaptive or dysfunctional attitudes. Dysfunctional attitudes are self-defeating beliefs which reflect the operation of specific negative schemata. Beck (1967) has proposed that it is the existence of these schemata which predispose an individual to depression.

Recently, several investigators have examined the relationship between dysfunctional attitudes and depression. Oliver and Baumgart (1985) measured levels of depression and dysfunctional attitudes in 275 medical hospital employees and their spouses and found a correlation of 0.41. These authors concluded that in the general, nonclinical population, dysfunctional attitudes are significantly related to depression, yet are not identical to it.

Keller (1983) studied 18 depressed community volunteers. Subjects were split into two groups based on levels of dysfunctional attitudes. A measure of depression was then administered. Subjects with higher levels of dysfunctional attitudes also showed higher levels of depression.

Vezina and Bourque (1984) studied 50 subjects age 60 or older. Measures of depression, dysfunctional attitudes, and negative cognitions were administered. Results indicated that the depressed elderly reported significantly more dysfunctional attitudes and negative cognitions than the nondepressed elderly.

In a study of the cognitive distortions resulting from operationalization of dysfunctional attitudes, Krantz and Hammen (1979) tested 527 undergraduate students, 29 outpatients in therapy for depression, and 20 psychiatric inpatients. A questionnaire was devised to assess individual's interpretations of events depicted in brief stories and the tendency to select the most negative, pessimistic, or distorted response options. Results indicated a consistent relationship between depressive symptoms and cognitive distortion scores across all 3 samples. Krantz and Hammen (1979) concluded that cognitive distortions are characteristic of depressed individuals.

This finding was also confirmed by Norman, Miller, and Klee (1983) who measured depression and distortions in 90 psychiatric patients. These researchers reported that depressed subjects selected significantly more distorted responses on the Krantz and Hammen (1979) questionnaire than did nondepressed patients.

To summarize, cognitive theorists have long held that an individual's experiences are organized into cognitive structures known as schemata, and that the content of these schemata corresponds to the individual's attitudes, beliefs, and values. The studies presented here support Beck's (1967) hypothesis that the schemata which are active in depression are characterized by maladaptive or dysfunctional attitudes.

### Factors Which Influence Schemata Formation

Beck (1967, 1974) has postulated that while all people organize information into coherent, usable cognitive structures known as schemata, the schemata of depressed individuals are characterized by dysfunctional or maladaptive attitudes and beliefs. Further, new experiences and information are then filtered through these maladaptive schemata, which perpetuates the depression. Given this to be true, why is it that some people develop these negative or maladaptive schemata while others do not?

In an attempt to answer this question, Beck (1967) studied 200 adult psychiatric patients. Of the 100 patients who were found to be highly depressed, 27 percent experienced the death of a parent during childhood. By contrast, of the 100 patients who were found to have little or no depression, only 12 percent had experienced this type of loss. The results of this study thus partially support the hypothesis that a traumatic experience in childhood may be a factor in the later development of depression.

However, Hammen (1978) surveyed 522 college students in terms of their level of depression, dysfunctional attitudes (indicative of maladaptive schemata), and recent stressful life experiences. She found that among depressed persons, low life stress was associated with more dysfunctional attitudes than was high life stress. This result is directly contrary to Beck's (1967) hypothesis that stressful events in adulthood trigger the activation of depressionogenic schemata. Thus, it appears that other factors may be responsible for the formation of maladaptive schemata.

Kovacs and Beck (1978) have suggested that the influence of parents may be an important variable in the formation of maladaptive schemata (manifested as dysfunctional attitudes) and subsequent depression. While this relationship has not as yet been examined directly, it has been well documented that children of psychiatrically sick parents present with more psychopathology and behavior problems than children of well parents (Anthony, 1969; Ekdahl, Rice, & Schmidt, 1962; Preston & Antin, 1933; Rutter, 1966). With regard to depression, Welner, Welner, McCrary, and Leonard (1977) studied 29 parents hospitalized for depression, 41 nondepressed parents, and all of their children aged 6 to 16. By means of both parent and child interviews, these authors found that 25 percent of all parents hospitalized for depression had at least one child who experienced an episode of depression. None of the children of the well parents had episodes of depression. They concluded that parental influences may indeed be a factor in the etiology of depression.

In a descriptive study of the histories of 50 hospitalized children and their parents, McKnew and Cytryn (1973) found that "in many of our cases at least one parent showed clinical evidence of depression" (page 1278). These researchers suggested that parental depression may affect the child either through the child's identification with the parent or through the parent's loss of involvement with the child as a result of the parent's illness.

In another study, Jacobsen, Fasman, and DiMascio (1975) assessed the relationship between childhood deprivation (defined as the lack, loss, or absence of an emotionally sustaining relationship prior to

adolescence) and the occurrence of adult depression in a sample of 659 depressed and normal women. Their findings revealed no association between adult depression and childhood loss events but did show an association between depriving childrearing practices and adult depression. Examples of childrearing practices which were correlated with depression include deprivation of love, excessive punishment, physical or verbal abuse, and verbal degradation as a means of discipline.

In a similar investigation, Blatt, Wein, Chevron, and Quinlan (1979) studied the relationship between descriptions of parents and aspects of depression in a sample of 121 normal young adults. Subjects were assessed for level of depression and then asked to describe their parents in their own words, and also to rate their parents on such characteristics as affection, degree of involvement in the family, nurturance, punitiveness, and support. Results indicated that descriptions of both mother and father as "negative figures" were significantly correlated with measures of depression ( $r=.36$ ). No relationship was found between descriptions of parents as "striving" and subjects' depression. These authors concluded that it is the perception of the parents as lacking in nurturance, support, and affection which is related to subjects' depression rather than the perception of parents as striving, harsh, and judgmental.

Similarly, Schwarz and Zuroff (1979) developed a model that predicted depression in female college students. Questionnaire measures of subject's depression, father's and mother's consistency in showing love, parental conflict, and relative decision-making power (dominance)

were completed by 98 subjects. Significant positive relationships were found between subjects' depression and (1) parental conflict, (2) father's inconsistency, and (3) mother's inconsistency. Also, the authors found that consistent paternal love, low parental conflict, and paternal dominance were associated with the least vulnerability to depression.

Together, these studies suggest that parental influences may play a role in the development of depression. While this relationship is both tentative and ambiguous, further investigation into parental influences as etiological factors in depression is necessary.

To summarize, Beck's (1967, 1974) notion that childhood trauma triggers the formation of maladaptive schemata which are later activated by similarly stressful events to produce depression appears to account for only a small percentage of all depressed people. Researchers are beginning to investigate the influence of parents in the development of depression. The studies reviewed in this section provide the foundation for an inquiry into parental influences in the formation of their children's depression.

The purpose of the present study is to determine if there is a relationship between levels of depression and dysfunctional attitudes of parents and their children. It is predicted that:

- (1) There will be a direct relationship between levels of depression and dysfunctional attitudes for adolescents.
- (2) There will be a direct relationship between levels of depression and dysfunctional attitudes for parents.
- (3) Levels of depression for adolescents will be directly

related to levels of depression for parents.

- (4) Levels of dysfunctional attitudes for adolescents will be directly related to levels of dysfunctional attitudes for parents.

## METHOD

### Subjects

There were two groups of subjects for this study. The first group consisted of students from a local high school in a large southwestern city while the second group was made up of the parents of these students. A total of 72 students were invited to participate, while 29 students actually completed the questionnaires. Of the 144 parents of these students, 38 returned the questionnaires. Thus a total of 67 subjects were used.

The students ranged in age from 14 to 17 with a mean age of 15.7 years. All of the students were white. There were 21 female students and 8 male students. The parents ranged in age from 32 to 51 with a mean age of 37.7 years. All of the parents were also white. There were 27 mothers and 11 fathers who responded. Forty-seven percent of the parents had completed high school and 53 percent were college graduates. Eighty-nine percent of the parents were currently married (mean length of marriage was 17.2 years) while 11 percent were divorced.

### Measures

Depression is a generic term that refers to a diverse set of symptoms, such as feelings of helplessness and hopelessness, dejection, apathy, sleep disturbances, loss of appetite, and decreased libido (Beck, 1967). Level of depression was assessed by means of the Beck Depression Inventory (Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961). The BDI is a 21-item questionnaire which measures cognitive,

motivational, affective, and physiological symptoms of depression. For each item, subjects are instructed to choose the statement which best describes the way they have felt during the last two weeks. Scores on the BDI range from 0 to 63 with the higher the score indicating more severe depression. This inventory has been shown to be reliable ( $r=.93$ , Beck, 1967). In addition, validity studies have shown the BDI to reflect clinical assessment of change in depression (Nussbaum, Wittig, Hanlon, & Kurland, 1963), to correlate with psychiatric estimates of depth of depression (Bumberry, Oliver, and McClure, 1978), and to correlate with other measures of depression (Beck, 1967; Zuckerman, Persky, Eckman, & Hopkins, 1967). Further, the BDI has been used extensively with adults (Beck, 1967; Hollon & Kendell, 1980; Oliver & Baumgart, 1985) and has also been used with adolescent subjects (Albert & Beck, 1975).

Beck (1974) holds that dysfunctional attitudes are maladaptive beliefs or self-defeating attitudes that commonly occur in depressed individuals and make up depressionogenic schemata. In this study, levels of dysfunctional attitudes were determined by use of the Dysfunctional Attitudes Scale (Weissman & Beck, 1978). The DAS is a 100-item questionnaire which examines the relative presence or absence of a number of maladaptive attitudes and beliefs, such as: "I am nothing if a person I love doesn't love me," or "I cannot be happy unless most people I know admire me." For each item, subjects are asked to choose the response option which best describes how they think most of the time. Subjects respond on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with the total score

thus ranging from 100 to 700. Validity studies have shown the DAS to correlate moderately with the BDI ( $r$  ranging from .41 to .65, Oliver & Baumgart, 1985; Vezina & Bourque, 1984). The DAS has also been shown to be internally consistent (coefficient alpha = .73; Oliver & Baumgart, 1985). Further, the DAS, like the BDI, has been used with both adult and adolescent subjects (Silverman, Silverman, & Eardley, 1984).

### Procedure

Adolescent subjects were addressed by the investigator during a regular class period at the high school. They were told that this study concerned the relationship between how people think and how they feel. All students who were interested in participating were given two sealed envelopes which contained questionnaires for each parent along with a letter explaining the nature of the study and requesting permission for their son or daughter to participate. Parents were asked to complete the questionnaires included with the letter and return them to the investigator via their son or daughter. Parents who agreed to allow their son or daughter to participate were asked to sign the consent form and enclose it with the questionnaires. The investigator returned to the high school 3 days later and those students who had permission to participate were then asked to complete the questionnaires.

The questionnaires consisted of the Beck Depression Inventory (labeled "Mood Inventory"), the Dysfunctional Attitudes Scale (labeled "Attitude Scale"), and several demographic questions. Half of the subjects randomly received the BDI first while the other half received the DAS first. Demographic questions were included between the two

scale for all subjects. Most subjects completed the questionnaires within 30 minutes.

## RESULTS

The data were analyzed by splitting the sample into two groups. The first group consisted of those adolescents who scored 3 or below on the BDI (hereafter referred to as the nondepressed sample). There were 3 males and 7 females in this group. The second group was made up of those adolescents who scored 10 or above on the BDI (the depressed sample). The cutoff of 10 and above for depression was recommended by Beck (1967). In this group, there were 2 males and 8 females. Additionally, for both groups, data from mothers were included irrespective of mothers' BDI scores. Only one of the mothers of the depressed sample scored 10 or above on the BDI while two mothers of the depressed group did so. No data from fathers was used since data was available on only 4 fathers for the depressed sample and 3 fathers for the nondepressed sample.

Significant differences were found between the two groups for adolescents' BDI (due to criterion split) and for adolescents' DAS, with the depressed adolescents showing greater dysfunctional attitudes. No differences were found between the groups for mothers' BDI or for mothers' DAS. These results are presented in Table 1. It should be noted that the standard deviations for the depressed adolescents BDI scores and for the mothers' BDI scores of the nondepressed sample appear to be larger than would be expected. On examination of the data, 2 adolescents in the depressed sample (BDI scores of 40 and 51) and 1 of the mothers in the nondepressed sample (BDI score of 39) evidenced

Table 1  
Means and Standard Deviations for  
BDI and DAS Scores

Variables	<u>Nondepressed</u>		<u>Depressed</u>		t
	Mean	SD	Mean	SD	
Adol. BDI	1.60	1.35	19.36	13.57	4.12***
Adol. DAS	298.60	32.02	368.82	66.40	3.04**
Mothers' BDI	6.80	11.71	6.10	3.04	0.18
Mothers' DAS	293.20	40.65	258.60	50.68	1.68

\* p .01

\*\* p .001

extreme scores on the depression measure. These isolated yet extreme cases undoubtedly account for the unusual standard deviations.

Pearson product-moment correlations were computed between BDI and DAS scores for both adolescents and their mothers. For the adolescents' BDI and DAS scores, a nonsignificant correlation was obtained for the nondepressed sample while a significant correlation was found for the depressed sample. For the mothers' BDI and DAS scores, the reverse was found. A significant correlation was obtained for the mothers of the nondepressed sample while no relationship was found for mothers of the depressed sample. These results are presented in Tables 2 and 3.

Correlations between adolescents' and their mothers' BDI scores for both samples were in the negative direction. In other words, for both the depressed and nondepressed samples, greater depression for mothers was associated with lower depression for adolescents and vice versa. Further, this negative relationship was somewhat stronger for the nondepressed sample than for the depressed sample. However, neither correlation was significant.

The correlations between adolescents' and mothers' DAS scores were quite discrepant, with a small, positive correlation (.25) found for the nondepressed sample and a larger, negative correlation (-.48) observed for the depressed group (see Tables 2 and 3). Again, neither correlation was significant.

The relationship between adolescents' and their mothers' dysfunctional attitudes was further analyzed by separating the DAS into 8 subscales following the example of Burns (1980). The subscales included: Approval, Love, Achievement, Perfection, Entitlement,

Table 2  
Correlations for Nondepressed Sample

Variable	1	2	3	4
1. Adol. BDI	--			
2. Mothers' BDI	-.36	--		
3. Adol. DAS	.23	.04	--	
4. Mothers' DAS	-.44	.84*	.25	--

\*\* p .01

Table 3  
Correlations for Depressed Sample

Variable	1	2	3	4
1. Adol. BDI	--			
2. Mothers' BDI	-.26	--		
3. Adol. DAS	.57*	-.62*	--	
4. Mothers' DAS	-.65*	.02	-.48	--

\* p .05

Responsibility, and Autonomy. According to Burns (1980), the Approval subscale assesses the tendency of an individual to measure his self-esteem based on how people react to him and what they think of him. The Love dimension assesses one's tendency to base her worth on whether or not she is loved. The Achievement subscale measures the degree to which one's self-worth and capacity for enjoyment are dependent on one's productivity. The Perfectionism subscale measures the tendency to demand perfection of oneself and to set unrealistic personal standards. Entitlement refers to the expectation that one's wants and demands should be met by other people because of some inherent goodness. The Responsibility subscale (referred to as omnipotence by Burns, 1980) assesses the tendency to blame oneself inappropriately for the negative actions and attitudes of others. Finally, the Autonomy dimension measures the belief that one's feelings and self-esteem are dictated by external factors.

The depressed and nondepressed groups of adolescents were compared across these subscales, with the results presented in Table 4. The depressed adolescents were significantly more dysfunctional on four of the subscales: Approval, Love, Achievement, and Perfection. In contrast, the mothers of the two groups of adolescents were also compared across these subscales. The two groups of mothers differed only on the Perfection subscale, with mothers of the nondepressed sample reporting a more dysfunctional need for perfection. These results are presented in Table 5.

Correlation coefficients were computed between BDI scores and the DAS subscales for both adolescents and their mothers. The results

Table 4  
Means and Standard Deviations of  
Adolescents' DAS Subscales

Variables	<u>Nondepressed</u>		<u>Depressed</u>		t
	Mean	SD	Mean	SD	
Approval	60.4	12.8	77.5	19.2	-2.51*
Love	27.7	5.6	37.3	10.1	-2.82**
Achievement	18.0	5.3	29.5	11.3	-3.11***
Perfection	91.3	12.3	116.4	22.0	-3.35***
Entitlement	32.1	5.3	34.2	3.8	-1.11
Responsibility	17.9	3.3	19.0	3.8	-0.73
Autonomy	51.2	9.5	55.0	9.2	-0.97

\* p .05  
\*\* p .01  
\*\*\* p .001

Table 5  
Means and Standard Deviations of  
Mothers' DAS Subscales

Variables	<u>Nondepressed</u>		<u>Depressed</u>		t
	Mean	SD	Mean	SD	
Approval	53.8	12.4	48.1	16.5	.92
Love	27.2	6.5	23.8	9.4	.94
Achievement	19.9	6.7	15.9	6.6	1.35
Perfection	99.4	12.5	85.2	15.0	2.31*
Entitlement	30.0	5.4	30.1	4.5	-.05
Responsibility	14.9	2.2	14.4	2.1	.52
Autonomy	48.0	9.2	41.1	10.4	1.41

\* p .05

are presented in Tables 6 and 7. For adolescents, a significant correlation between BDI scores and Approval was found for the nondepressed sample and between BDI scores and Achievement, Perfection, and Entitlement scores for the depressed group. Also, significant correlations between BDI scores and Love, Achievement, Perfection, and Autonomy scores were found for mothers of the nondepressed sample. No significant correlations were observed for the mothers of the depressed sample. For the adolescents and mothers, all significant correlations were in the predicted direction.

Correlation coefficients were computed between each of the adolescents' and their mothers' DAS subscales. The findings are presented in Tables 8 and 9. For the nondepressed sample, significant positive correlations were found between the adolescents' Achievement subscale and each of the subscales of their mothers' DAS with the exception of the mothers' Love score. In contrast, for the depressed sample, the adolescents' achievement subscale was significantly negatively correlated with 6 of the 7 subscales of their mothers' DAS. The two exceptions to this were the mothers' Entitlement and Responsibility scores. Additionally, for the depressed sample, 3 of the 7 subscales of the mothers DAS were significantly negatively correlated with their adolescents' Entitlement score.

Finally, a t-test was computed to determine if any of the results could be attributed to the order in which the questionnaires were presented. As can be seen in Table 10, no significant differences were found for any measure between subjects who first completed the BDI and those who first completed the DAS.

Table 6  
Correlations Between Adolescents' Depression  
Scores and DAS Subscale Scores

Variables	Nondepressed	Depressed
Approval	.69**	.42
Love	.31	.20
Achievement	-.45	.57*
Perfection	-.43	.65**
Entitlement	.19	.67**
Responsibility	-.06	.14
Autonomy	.39	.37

\* p .05

\*\* p .01

Table 7  
 Correlations Between Mothers' Depression  
 Scores and DAS Subscale Scores

Variables	Nondepressed	Depressed
Approval	.52	-.06
Love	.59*	.10
Achievement	.75**	.27
Perfection	.90**	.06
Entitlement	.27	-.16
Responsibility	.36	-.30
Autonomy	.59*	-.01

\* p .05

\*\* p .01

Table 8  
 Correlations Between Adolescents' and Mothers'  
 DAS Subscale Scores for Nondepressed Sample

Variables	Adolescents' DAS Subscales						
	1	2	3	4	5	6	7
<b>Mothers' DAS Subscales</b>							
1. Approval	-.28	.07	.56*	.67*	.25	.34	.51
2. Love	-.24	.38	.20	.19	.25	.26	.04
3. Achievement	-.50	.08	.70**	.47	.21	.62*	.08
4. Perfection	-.69**	-.02	.74**	.11	-.10	.32	-.18
5. Entitlement	-.23	-.02	.56*	.71**	.36	.62*	.19
6. Responsibility	-.41	.14	.55*	-.02	.04	.18	-.13
7. Autonomy	-.16	-.15	.58*	.10	-.15	.17	.30

\* p .05

\*\* p .01

Table 9  
 Correlations Between Adolescents' and Their Mothers'  
 DAS Subscale Scores for Depressed Sample

Variables	Adolescents' DAS Subscales						
	1	2	3	4	5	6	7
Mothers' DAS Subscales							
1. Approval	-.21	-.15	-.69**	-.30	-.57*	.00	-.15
2. Love	-.28	-.30	-.76**	-.39	-.57*	-.05	-.32
3. Achievement	-.49	-.30	-.61*	-.30	-.36	.03	-.43
4. Perfection	-.12	-.07	-.58*	-.54*	-.87*	.21	-.60*
5. Entitlement	.00	-.13	-.29	-.26	-.26	.31	-.44
6. Responsibility	.13	.07	.10	-.37	-.37	.25	-.39
7. Autonomy	-.02	.00	-.62*	-.30	-.34	-.32	-.35

\* p .05

\*\* p .01

Table 10  
Results of T-Test for Possible Differences  
Due to Questionnaire Order--Depressed  
and Nondepressed Samples Combined

Variable	t value	Two-tail Probability
Adolescent BDI	-.92	0.36
Adolescent DAS	-.69	0.50
Mothers BDI	-1.25	0.23
Mothers DAS	-1.58	0.13

## DISCUSSION

The hypothesis that depression and dysfunctional attitudes of adolescents will be directly related was confirmed only for the depressed sample. This finding is not consistent with Beck's (1979) notion that dysfunctional attitudes covary with depression. The data presented here suggest that the relationship between dysfunctional attitudes and depression is characteristic only of depressed adolescents.

The second hypothesis, that depression and dysfunctional attitudes of parents will be directly related, was assessed only for mothers (as noted previously). This relationship was found only for mothers of the nondepressed sample. Here again, Beck's (1979) theory predicts that the relationship observed for mothers of the nondepressed sample should also hold for mothers of the depressed sample. This was not the case. Further, t-tests revealed no differences between the two samples for either mothers' BDI or DAS scores, with both groups consisting primarily of nondepressed and attitudinally functional mothers. Therefore, these results are only partially supportive of the hypothesis.

The third hypothesis predicted a direct relationship between severity of depression of adolescents and severity of depression of their mothers. This hypothesis found no support. In fact, the correlations, while not significant, were in the negative direction.

The fourth and final hypothesis predicted that adolescents' and their mothers' DAS scores would be positively correlated. However, for

the depressed sample, the reverse was found. For this group, the presence of a depressed and attitudinally dysfunctional adolescent was associated with a more functional mother.

In sum, the data presented here reveal little support for the notion of the intrafamilial transmission of depression and dysfunctional attitudes via modeling or observational learning. As noted previously, this study represents a preliminary, exploratory investigation and a true test of a modeling process should involve direct behavioral observations of subjects.

Alternatively, the results of this study suggest that a compensatory process may be occurring. More specifically, the presence of a depressed and dysfunctional family member may require a counteracting response on the part of other members in order to maintain equilibrium within the family. Such a process would be similar to that found in families of alcoholics, where other family members (particularly the spouse) often take on many of the duties and responsibilities of the alcoholic member. This "family systems" idea is certainly not new. Such a view was stressed by Ackerman (1956, 1958) who suggested a "psychosocial diagnosis of the family" as a unit. While it is not possible to discuss cause-and-effect relationships from the correlational data used in this study, it is unlikely that families in the depressed sample represent dysfunctional "systems." A case-by-case examination of subjects in this group typically revealed only one depressed individual per family. However, this observation must be made cautiously since so few fathers completed the questionnaires that this hypothesis was thus not available to statistical testing.

There are several limitations of the present study. First, given the small sample sizes, it is likely that limitations in statistical power precluded the documentation of significant effects in some cases. Secondly, the generalizability of the results are severely limited by the nature of the sample, which was neither random nor representative of the general population. The representativeness of the sample is also questionable since adolescents who scored between 4 and 9 on the BDI were excluded from the data analysis. Clearly, the majority of the population under study could be expected to fall within this range. Finally, this was primarily a female sample, which prevented the examination of gender differences.

Further research should involve a larger sample than that used in this study and should include sufficient numbers of mothers and fathers, as well as male and female students, to make the examination of gender differences possible. This concept is key to the social identification hypothesis. Further, use of the short forms of the DAS (although not recommended by Oliver and Baumgart, 1985, due to the different factor structures) may be necessary in order to eliminate the tedious task of completing the longer, 100-item version. Also, sample involving children and adolescents of differing ages are needed to determine whether the results of this study are unique to this cohort.

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