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A Study of the Relationship between Parental Informant Depression and Reports of Psychopathology in and Adolescent Who Died by Suicide

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A STUDY OF THE RELATIONSHIP BETWEEN PARENTAL INFORMANT DEPRESSION AND REPORTS OF PSYCHOPATHOLOGY IN AN ADOLESCENT WHO DIED BY SUICIDE

by

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This work is dedicated to my parents, Dorothy Harlib Telcser and Arthur Telcser with gratitude for their boundless love and support, and appreciation for them teaching me by their examples to be a person of integrity and purpose.

VITA

The author is the daughter of Arthur A. Telcser and Dorothy Harlib Telcser. She was born on May 24, 1958 in Chicago, Illinois.

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INTRODUCTION

The study of completed suicide is complex and methodologically challenging. Post hoc research is naturally thorny, and suicide in particular defies re-creation and experimental control. Although studies of suicide attempters may provide limited understanding of suicide completers, conclusions generalized from this population are incomplete at best, and at worst, may obscure some of the salient characteristics that differentiate those individuals who actually take their lives. The obvious commonality between the two groups is potentially lethal self-harm, yet the extent to which attempters' motives approximate those of completers is unclear. Noting that although some overlap between the two groups exists (i.e., many determined attempts at suicide fail, and acts designed to self-injure result in unintentional deaths that are technically considered suicides), suicidologists concur that attempters and completers differ in meaningful ways (Hawton, 1986). Self-destructive behavior is evident in both groups, yet often they are dissimilar in their degrees of intent to die and the lethality of their methods. Whether studied alone or for generalization or comparison to suicide completers, findings

derived from samples of suicide attempters are weakened by selection and history biases. These groups are comprised almost exclusively of individuals who have contact with emergency and/or mental health care systems, and are willing to participate in research. Hence, "help-seeking" individuals may be vastly over-represented in studies of suicide attempters. Additionally, suicide attempters have survived self-destructive acts and have been exposed to the responses of others, and it is unknown how either may affect the subjects' descriptions of the thoughts and motives that precipitated their actions. The inherent importance of the study of non-fatal self-harm notwithstanding, this line of research is of limited value when the phenomenon of interest is completed suicide.

Since living analogues are unavailable, studies of completed suicide victims must either be prospective or retrospective. The former is cost prohibitive, particularly because the low base rate of suicide would demand tremendously large samples in order to observe adequate numbers of completed suicides. More importantly, investigators are morally and ethically bound to intervene when a research subject evidences suicidal tendencies or high risk markers. The second approach to studying completed suicide, retrospective investigation, must rely solely upon archival records and third person reports. Unlike research with attempters, the subjects of a retrospective study are

inaccessible for the purposes of direct observation or verification of the data gathered from other sources.

The goals of many of these post hoc studies of suicide are broad and ambitious, endeavoring to construct an accurate account of antecedent life events and to develop profiles of the victims' behaviors, attitudes, feelings, and psychiatric histories. The method for abstracting this information, the psychological autopsy, was originally developed by the Los Angeles County Coroner's Office as a systematic approach to investigating equivocal cases of death in its jurisdiction (Schneidman & Farberow, 1970). Subsequently, numerous suicidologists have adopted this method to study known cases of suicide. A review of these investigations shows that they vary in terms of the rigor with which they invoke decision rules for diagnosing psychiatric disorder, the breadth of the data that they seek to recover, and the distance in time prior to the suicide about which they seek to ascertain information (Barraclough, Bunch, Nelson, & Sainsbury 1974; Brent, Perper, & Allman, 1987; Dorpat & Ripley, 1960; Fawcett & Clark 1987; Rich, Young, & Fowler, 1986; Rich, Warsradt, Nemiroff, Fowler, & Young, 1991; Robins, Gassner, Kayes, Wilkinson, & Murphy, 1959; Shaffer, 1974; Shaffer, 1988; Shaffi, Carrigan, Whittinghill, & Derrick, 1985; Shaffi, Steltz-Lenartsky, Derrick, Beckner, & Wittinghill, 1988). Weeks, months, years, or a entire lifetime of historical data regarding the subject may be compiled from medical, school,

employment, and legal records, as well as from direct interviews with informants.

The role of informants (i.e., family members, friends, co-workers, and others who have had close regular contact with the suicide victim) is to provide specific psychosocial information about the deceased. The way in which these data are used to reach final diagnostic determinations differs among studies, but a system of combining the data across informants is considered the most accurate method for determining a best-estimate diagnosis for the deceased (Fawcett & Clark, 1987). Theoretically, this approach enables investigators to determine the prevalence of specific psychiatric disorders and their concomitants among the suicide victims. A trend toward refining and standardizing this method has paralleled the movement within psychiatry and psychology to develop more precise and reliable diagnostic procedures and categories. As diagnostic categories have been redefined and advanced (e.g., DSM-III-R, Research Diagnostic Criteria), so too have the methods for ascertaining the information necessary to reach a diagnosis. Structured clinical instruments designed to correspond to accepted diagnostic criteria have become the standard for psychological research. The most recent wave of psychological autopsies attempts to apply the newly defined diagnostic criteria to victims of suicide by soliciting detailed information from informants who were close to them

using optimally valid and reliable assessment techniques and instruments. To the extent that the psychological autopsy method is itself sound, adolescent suicide (the focus of the present study) is particularly amenable to such an approach. The vast majority of this population lived with one or more parents or parental figures, and with siblings.

Despite the advantages and the intuitive and scientific appeal of using third-party informants to complete the psychological autopsy, the veracity of their retrospective reports is questionable (Barraclough et al., 1974; Shaffer, Perlin, Schmidt, & Himelfarb, 1971). Suicide is an emotionally provocative human tragedy, and for many people is an incomprehensible act. Survivors experience a myriad of emotions, from grief to anger, and are left to formulate subjective theories of whom or what may have been the impetus for a relative or friend to terminate their existence. A wide range of value and emotion laden explanations are apt to be developed by the survivors, and the extent to which these notions color an informant's perception of the suicide victim's behavior is unknown. Undoubtedly the survivors enlisted as informants for a psychological autopsy are earnest in their desire to provide accurate and objective recollections, yet it is plausible that they may inadvertently under- or over-estimate the presence, frequency, or severity of psychological symptomatology or otherwise distort significant information. Barraclough et

al. (1974) posited a two-tailed pattern of distortion in informant reports. They suggested that the survivors may: (1) idealize the victim, and report an absence or minimum of psychiatric symptomatology; or (2) exaggerate the presence of psychopathology strictly on the basis of the suicidal behavior or as a way of "explaining" the event. It is plausible that the latter pattern may emerge in the responses of informants who are themselves in a depressive state at the time when they are rating the suicide victim's level of psychological symptoms. Beck (1967) noted a distinctive and measurable pattern of negativity and overgeneralization in the cognition of depressed individuals. Faulty inferences arise out of overgeneralization, and in the cognitive world of the depressive these errors are negatively toned. Beck and Kovacs (1979) described the process of depressive overgeneralization as one in which the implications of a single negatively toned situation becomes generalized to all similar situations. For example, a man who is turned down for a date by one woman believes that he will never get a date, based upon this one experience.

It is posited that an informant's own negative affect may color his or her recollections of the victim in several ways. The depressed informant may project his or her own despondent feelings onto the deceased loved one, or alternatively, the constricted cognitive functioning style associated with depression may cause him or her to exaggerate the level of

psychiatric symptomatology more broadly. In the case of the former reporting bias, the suicide victim may be erroneously diagnosed specifically as having had a depressive disorder, that is, the informant may rate the deceased as having demonstrated symptoms which mirror his or her own. If the latter response pattern were to emerge in the informant's report, normal variations in mood may be overgeneralized as being more frequent, severe, or abnormal than they actually were. In this event, false positives may occur across the full range of disorders being investigated.

The psychological autopsy method is an approach to the study of completed suicide designed to elicit information about the victim from those individuals who were closest to him or her. The rationale for the method is sound; the data provided by the informants undoubtedly represent a unique contribution of information that would otherwise be excluded. Nevertheless, these informants are survivors of a tragic and shocking loss, and are often in the throes of their grief when they participate in such a study. Many may be suffering from clinically significant symptoms of depression, which as noted, are associated with various forms of memory failure. Thus, information provided by relatives and friends of a suicide victim may well need to be understood in the context of their own affective state at the time of the interview and interpreted accordingly.

The present study is concerned with the application of

the psychological autopsy method to cases of adolescent suicide. As noted, such cases are usually optimally suited to this approach since most of this youthful population lived with parents or parental figures and had numerous social and/or institutional contacts (e.g., school). The objectivity of the reports of these parental informants is questioned, however, because of the likelihood of their bereavements being complicated by depressive affect and the link between depression and inaccurate recall. If a significant relationship between informant depression and reports of psychopathology in the suicide victim exists, this has implications for the interpretation of psychological autopsy results.

Depression and Memory: Patterns of Negative Bias

Negatively biased judgment and memory failure are two correlates of depression that may be expected to influence depressed parents' reports of their children's behavior. With respect to the first type of influence Beck (1967) and Beck and Clark (1988) described and classified a number of cognitive errors common to depressives, several of which would predict distortions in reports elicited from informants in negative mood states, thus elucidating the problem at hand. These errors include: (1) *arbitrary inference*, which involves reaching conclusions unfounded by available evidence; (2) *selective abstraction*, which involves taking a

negative aspect of a situation out of context and ignoring other aspects of a more positive tone that may outweigh it; (3) *overgeneralization* which entails using an isolated piece of negative information and inappropriately generalizing it across situations; and (4) *magnification and minimization*, a pattern of overestimating the importance of negative events and underestimating the impact of positive circumstances.

Beck's depressive cognitive errors represent potential threats to the validity of the reports generated by psychological autopsy informants. For example, an arbitrary inference regarding the victim's psychological condition may arise solely on the basis of the suicide itself; a depressed informant may operate on the belief that in order to have ended his or her life the subject must have had a psychiatric disorder (e.g., substance abuse or depression). Although this may be a reasonable hypothesis, the depressive may unwittingly selectively abstract, overgeneralize, magnify, or minimize information in such a way that it would be falsely confirmed. As noted, a depressed informant may focus on one period of negative affect or problematic or symptomatic behavior in the deceased and erroneously overgeneralize it to a degree that is clinically significant, resulting in the researcher's conclusion that the suicide victim evidenced a diagnosable psychiatric disorder. Dysphoria may be magnified into major depression. Pathological mood states in the suicide victim may have occurred but also may have been

punctuated by periods of positive affect. The latter may be minimized by the depressed informant such that duration criteria for a mood disorder are mistakenly rated positively. Likewise, brief pathological states may be selectively abstracted by the informant, resulting in an unbalanced, negatively biased view of the subject.

There is considerable empirical support for predictions based upon the negative cognitive biases described by Beck and his colleagues. These patterns have been obtained in mood induction studies with normal samples and in studies of clinically depressed patients. The patterns of recall and judgment elucidated by Beck and demonstrated by the impressive body of research on the relationship between depression and cognition suggest that a depressed parental informant may be unable to supply a veridical account of the child's functioning. Whether independent of the behavior of his or her offspring or partially brought about by it, a parent's negative emotional state would be expected to cause misperception and/or exaggeration in reports of the presence, frequency, and severity of problem behaviors and a tendency to disregard or minimize the child's adaptive strengths.

Using a story recall paradigm, Breslow, Kocsis, and Belkin (1981) compared hospitalized depressives and matched normal controls and found that the experimental group evidenced an overall deficit in story recall. Poor recall of the positive themes of the story accounted for the deficits

in the performances of the depressed sample. This pattern of exclusion (i.e., the failure to recall positive material) suggests a threat of omission bias in the recollections of parents who are asked to rate their children's behavior patterns for the purpose of making psychiatric diagnosis. For example, DSM-III-R diagnostic criteria are designed to ascertain the frequency and duration of certain mood states (e.g., mania or depression) and behaviors (e.g., substance use). Should the informant selectively omit intervening periods of positive or neutral affect or abstinence from substance use, a transitory or intermittent symptom may be erroneously scored as having endured beyond the threshold for diagnostic significance.

Depressed subjects appear to access unpleasant personal memories more readily than pleasant ones. Lloyd and Lishman (1975) presented clinically depressed patients with neutral stimulus words and instructed them to generate personal memories in response to them. These investigators found that as the severity of subjects' depressions increased, latencies of recall of unpleasant life events decreased. Conversely, retrieval times for pleasant memories increased as a function of increasing levels of depression. Teasdale and Fogarty (1979) induced happy and depressed moods in normal subjects and assessed retrieval latencies for positively and negatively valenced life experiences. In this predominantly female sample (75%) latency of retrieval for unpleasant

memories decreased as depression increased; however, latencies for retrieval of pleasant memories was non-significantly effected. Teasdale, Taylor, and Fogarty (1979) presented stimulus words to a non-clinical sample of female subjects in induced happy and unhappy moods. In response to these words, the subjects generated greater frequencies of personal memories that were congruent with their moods than were incongruent.

A study designed to address the limitations of Lloyd and Lishman's (1975) correlational design was conducted by Clark and Teasdale (1982). These researchers considered it important to rule out selective recall of negative material as a pattern attributable to an enduring characteristic of depression-prone individuals rather than to the negative mood state per se. Therefore, these investigators employed a within-subjects design to assess biases in recall and subjective hedonic judgments in depressives with diurnal mood variation. Subjects were tested twice, during their peak and lowest periods of depression, and directed to retrieve pleasant and unpleasant memories and then to rate the hedonic tone of these life events. Higher frequencies of retrieval of unhappy and happy memories corresponded to periods of greater and lesser depression, respectively. Additionally, subjects' ratings of current hedonic tone of these experiences were found to vary with their levels of depression; that is, the higher the level of their depression

while evaluating the event, the more negative their ratings of it. Thus, this study demonstrates that bias in memory and negatively biased subjective judgment both emerge as direct functions of subjects' levels of depression. Additionally, one may rule out competing hypotheses; that is, it does not appear that the observed effects can be attributed to a feature of these subjects other than their depression, nor could it be argued that depressives have life histories that would (according to subjective ratings) be generally of low hedonic value.

One explanation of depressive's superior recall for negatively toned-material is what has been dubbed the mood congruous recall effect (Teasdale, 1983). Simply stated, a subject can be expected to have superior recall for personal life events, story themes, or words of an emotional valence that correspond to his or her affective state at the time of remembering. Unlike state-dependent learning, a pattern of enhanced recall that has been attributed to a match between subjects' moods at the time of learning and at recall, mood congruous recall involves enhanced memory under conditions where the emotional tone of the material itself corresponds to the subjects' state of mind at recall. An example of this effect was elicited by Laird, Wegener, Halal, and Szegda (1982) who employed a mood induction procedure and evaluated the impact of mood upon subjects' recall of two types of written material, humorous and anger-provoking. Subsequent

to reading both types of passages, subjects' moods were manipulated into angry or happy conditions. Consistent with what would be predicted by Teasdale's (1983) model, subjects demonstrated superior recall for passages that corresponded to their induced happy and angry moods. Also of note were patterns of error elicited in subjects' free-recall of the content of the passages; they fabricated details that were incorrect such that they were consistent with their own moods. In order to rule out the possibility that the results observed were due to a state-dependent learning effect of an undetected mood induction brought about by the initial reading of the passages, the authors conducted a second study that also examined the specificity of the observed congruency effects. Specific negative emotions of anger, fear, or sadness were induced prior to the presentation of sentences, the contents of which corresponded to the three emotions. Recall of each type of sentence was significantly greater for subjects in congruent moods (e.g., sad subjects demonstrated superior recall for sad sentences). Similar effects were elicited by Bower, Teasdale, and Russell (1983) who also used the mood-induction paradigm. They presented normal subjects in neutral moods with learning lists comprised of positive and negative personality trait words. Subsequent to word list presentation, mood induction procedures were introduced. Recall of positive trait words was greater in subjects in induced elated mood, and recall of negative trait words was

greater in subjects in induced depressed mood.

Also using a mood-induction/recall design, Clark and Teasdale (1985) crossed levels of mood with gender in a non-clinical sample of subjects. The results of this study indicated that better recall of negative words in induced depressed mood is significantly more pronounced in women than men. This observation of a gender difference is consistent with the trend observed in diagnostic reliability studies; that is, compared with fathers, mothers' perceptions of their children's problematic behaviors appear to be more susceptible to an influence of their own level of depressive mood disturbance. The implication of this finding for the present study is that it suggests that compared with fathers experiencing comparable degrees of depression mothers will assign higher psychopathology ratings to their children.

In addition to recall there are two important demands that define the task of the psychological autopsy informant which may be impacted by the informant's level of depression: (1) the appropriate use of judgment and inference, and (2) the ability to give accurate reports about people other than themselves. It is of note that depression influences both the availability of personal and impersonal memories and the potency of their hedonic value for the subject. Variations in these hedonic ratings observed under experimental conditions demonstrate that in addition to influencing the process of selection or access to material to be recalled,

depressive affect impacts qualitative judgments of an event or an experience. This is relevant to the psychological autopsy method and any examination of informant bias because informants are implicitly solicited to make inferences and judgments about the deceased in addition to being asked to recall overt behaviors or outward expressions of mood which were evidenced by the suicide victim. With respect to the second demand on the informant it is of note that much of the Beck's work and research that corresponds to or has proceeded from his theory and clinical observations have concerned self-referent material. However, such patterns of bias are not exclusive to self-referent material and much of the literature presently reviewed has concerned either impersonal materials (e.g. word-lists, written passages) or judgments about others.

A final important distinction regarding the task of the informants in a psychological autopsy study is that they are in part being asked to report specifically about the mood and the emotional life of another person. Thus, the particular effect of an individual's own mood upon his or her judgement of the mood of another is of central concern to an investigation of factors that may influence the psychological autopsy informant's performance of the task. Schiffenbauer (1974) studied the effect of subjects' affective states upon their judgments of emotion manifested in the facial expressions of others as well as the intensity of mood states

judged in these facial expressions. Mood state and level of arousal were manipulated in a non-clinical sample of subjects to test the effects of these factors upon their attributions. Presented with photographs of others, subjects in this study attributed emotions to the pictured targets that had valences consistent with the subjects' own felt emotion at the time of judgment. Subjects in different levels of "noise" conditions which represented high arousal and low arousal groups differed significantly on their ratings of the intensity of emotion in the pictured target individuals; high arousal subjects assigned higher intensity ratings than did the minimally aroused group. Bower (1981) noted a similar effect when he instructed subjects in induced happy and angry moods to attach trait labels to people who were well-known to them, that is, relatives and friends. The character sketches of these others developed by happy subjects were "happy" in 84% of the subjects, and angry profiles of others emerged in 59% of the angry subjects. This mood congruent effect was also observed in happy and angry subjects' generation of TAT stories. These studies suggest that in addition to errors of omission brought about by selective memory during retrieval, outright errors and exaggerations consistent with subjects' moods when commenting on the moods of others would also be expected.

Using Informants in Psychological Assessment: Advantages and Limitations

The provision of diagnostic data by third-party informants is an approach that is not exclusive to the psychological autopsy method or to the general study of suicide. Psychiatric diagnosis often requires input from individuals who have had ongoing contact with the patient or subject. Particularly when evaluating children, researchers and clinicians are reliant upon the reports of parents and teachers to ascertain the information necessary to complete the child's profile (Carlson & Cantwell, 1979; Herjanic, Herjanic, Brown, & Wheat, 1975; Orvaschel, Puig-Antich, Chambers, Tabrizi & Johnson, 1982). Paradoxically, these sources that are considered critical are also fallible, and studies of interrater reliability that compare reports of different third party informants (e.g., mothers, fathers, teachers) reveal a significant degree of variance among them when describing the same child. Additionally, systematic evaluations conducted by several investigators conclude that agreement between parent and child is often poor and that such discrepant reports may obscure valid diagnostic determination of the youth (Herjanic and Reich, 1982; Kashani, Orvaschel, Burk, & Reid, 1985; Kazdin, French, Unis, & Esveldt-Dawson, 1983; Reich, Herjanic, Welner, & Gandy, 1982; Weissman, Orvaschel, & Padian, 1980).

The problem of unreconciled reports is difficult to tease

apart. Although the rationale for interviewing parents or other relatives when diagnosing children and adults rests in part on the assumption that individually they may offer unique contributions, it is unclear what confounding factors produce variance within informant collectives. Particularly troublesome is the level of disagreement between informants and the subject in question. Herjanic and Reich (1981) noted that no empirical basis exists for concluding that by virtue of adulthood parents would be expected to be more accurate reporters than their children. In support of this assertion, parental psychopathology, particularly depression, has been demonstrated to affect parents' reports of their children's symptoms; however, a consistent and specific pattern of influence of such an affective state has not emerged. Other factors that have been linked to variance among informants include the genders of the parent and the child and the type of symptomatology in question.

Jensen, Traylor, Xenakis, and Davis (1988) used a non-clinical sample of parents and children (ages 6-11 years) to examine interparent and parent-child agreement on ratings of the children's psychologic symptomatology. The second objective of the study was to evaluate the relationship between parents' psychopathology and their perceptions of their children's level of and type of disturbance. Parents rated their children with a behavior checklist, and children rated themselves with self-report measures of anxiety and

depression. Parent-child agreement was significantly greater for mothers and sons than for mothers and daughters. Mother-son correlations were also significantly greater than for father and either gender child. Mothers' reports of their sons' behavioral problems were found to be significantly higher than fathers' reports and no significant differences existed between parents' reports regarding daughters.

The type of symptomatology attributed to children by depressed parents varies among completed studies. In the Jensen et al. (1988) study parental psychopathology was assessed by self-report checklist. Mothers' psychiatric symptomatology, particularly that of a depressive nature, was systematically related to differences between their ratings of their children and the ratings of all other informants (i.e., fathers and teachers). Similarly, in a study of mothers' ratings of their pediatric and psychiatric outpatient children (ages 8 to 12 years), Friedlander, Weiss, and Traylor (1986) noted high positive correlations in both sub-samples between mothers' level of depression and their ratings of all types of psychiatric symptoms except for somatic complaints in their children as measured by a child behavior checklist. This relationship was strongest between maternal depression and mothers' perceptions of depressive phenomenology in their children, for which 50% of the variance was accounted for by mothers' scores on the Beck Depression Inventory (Beck & Beamesderfer, 1974). Consistent

with this pattern of direct correspondence between maternal reports about their children and their own symptomatology, Graham and Stevenson (1985) found that mothers' reports of psychologic symptoms in their adolescent children (aged 13 years) was more similar to their ratings of their own symptomatology than to fathers' and teachers' reports of the adolescent in question.

Effects of parent and child gender have also been demonstrated. Jensen et al. (1988) found that maternal depression was most strongly associated with reports of internalizing problems in sons. An interaction between child gender and parental depression was observed by Friedlander et al. (1986). In their sample, as maternal depression increased a greater difference between ratings of sons' and daughters' aggressive and delinquent behaviors was reported, with sons being rated higher on these dimensions.

Interpretation of these findings raises the question of whether parental psychopathology is associated with parental misperceptions and inaccurate reporting or with higher actual rates of behavioral and mood disorders in children. Although there is considerable support for the latter pattern, the former is not without substantiation. It has come to the attention of several investigators that a proportion of clinic referred children do not differ behaviorally from non-referred children. Griest, Wells, and Forehand, (1979) demonstrated that instead of children's actual behaviors,

maternal depression was a significant predictor of mothers' perceptions of children's non-compliant and deviant behaviors. Trained home observers' reports provided checks upon maternal reports in this study. It is conceivable that the raters' presence could have produced a social desirability effect; however, in light of other findings, this does not appear to have occurred. Several of the previously reviewed studies indicate that informant disagreement emerges as a function of the divergent testimony of the more distressed informants, suggesting that the distorting cognitive effects of depression are operative in these circumstances. Thus, high frequencies of child psychopathology reported by pathological parents cannot be attributed entirely to psychopathology clustering in families.

In summary, there is considerable evidence that several factors can compromise the validity of parents' reports of their children's psychological functioning. Parent-child agreement and interparent agreement is often poor (Herjanic and Reich, 1982; Kashani et al., 1985; Kazdin et al., 1983; Reich et al., 1982; Weissman et al., 1980), and this may be attributable to parent and child gender effects and parental psychopathology, particularly maternal depression (Friedlander et al., 1986; Griest et al., 1979; Jensen et al., 1988). The high likelihood that a parental survivor of adolescent suicide may experience a bereavement complicated

by depression suggests that the information yielded by him or her for the psychological autopsy would be subject to patterns of depressive distortions, which would result in compromised validity of the findings based upon their testimony.

Statement of the Problem and Hypotheses

A substantial number of studies that examine the relationship between parents' psychopathology and their ratings of symptomatology in their children have been conducted to date. The pattern of parental symptomatology as a factor in parental perceptions of children has led some investigators to stress the importance of assessing parents concurrently when children are presented for evaluation (Friedlander et al. 1986, Griest et al., 1979). In light of the consistent finding that parental depression is associated with reporting bias in samples of parents rating their living children, it is reasonable to question whether such a pattern may emerge in depressed parents of adolescent suicide victims. Research on the effects of mood upon recall suggest that depressed parents' distortion of child behavior is to be expected. For example, as depression increases the frequency of recalled negatively-toned words, story details, and personal memories increases and retrieval time for these materials decreases (Bower et al., 1983; Breslow et al., 1981; Clark & Teasdale, 1982; Lloyd & Lishman, 1975; Teasdale

et al., 1979). Accuracy is sacrificed in the direction of the valence of the subjects' mood at the time of recall (Laird et al., 1982).

In spite of this threat few systematic investigations of the relationship between psychological autopsy informants' depression and their symptom ratings of the deceased are available to address this concern. Although Brent, Perper, Kolko, and Zelenack (1988) explored this question and found no significant relationship between informant affect and reporting style, their study failed to use an appropriate measure to ascertain the informants' affective statuses. They determined informants' affective state with the Family History Research Diagnostic Criteria (FH-RDC), an instrument designed only to ascertain whether psychopathology has ever been present. Brent and his colleagues used the data from this interview to rate the informants as having: (0) no affective disorder, (1) minor depression or dysthymia, and (2) major depression at the time of the interview regarding their deceased child. Since the FH-RDC is not a self-report measure and does not provide a dimensional rating of depression, Brent et al.'s findings are equivocal (Brent, et al., 1988; Clark, 1988).

The present study examined the strength of the association between parental informant depression and reports of psychological symptomatology in a more precise and reliable manner than the efforts completed previously.

Measurement of parental depression was conducted with the Beck Depression Inventory (Beck & Beamesderfer, 1974) a highly valid, reliable, and widely used research and clinical measure of depression. Two hypotheses were tested. First, it was hypothesized that parental informants' positive endorsements of symptomatology in their deceased children would increase as a function of their own depressive state as measured by the Beck Depression Inventory (BDI). Second, it was hypothesized that this effect would be more pronounced in mothers than fathers in light of this pattern in the literature.

CHAPTER II

METHOD

Overview of Design

This study examined the influence of parental depression on parents' reports of psychopathology in their adolescent children who died by suicide. To achieve this, parental depression was measured with the Beck Depression Inventory (BDI) (Beck & Beamesderfer, 1974). Parents' ratings of their children's symptomatology were obtained from their responses to the Kiddie Schedule for Affective Disorders and Schizophrenia (Orvaschel & Puig-Antich, 1986). Reporting of DSM-III-R symptoms (Appendix) was examined for five disorders; depression, hypomania/mania, attention deficit disorder, conduct disorder, and substance abuse. Parents' reports for three time intervals in the adolescents' lifetimes were examined; (1) past, which included symptom ratings for the time period up to the year prior to death; (2) current, which included symptoms ratings for the one year prior to the death; and (3) ever, which included symptom ratings for the adolescents' lifetimes. Reports of the various disorders were available for the following time intervals: depression and manias, past, current, and ever; attention deficit disorder, past; conduct disorder and

substance abuse, ever.

Comparisons between depressed and non-depressed parents were conducted among all parents (mothers and fathers) and among mothers as a separate group. Tests of the strength of the relationship between parental depression and reports of adolescents' symptomatology were conducted for mothers and fathers as a single group and for mothers and fathers as separate groups.

Subjects

Informants. The subjects of the study were 52 biological parent survivors of 39 adolescent suicides (ages 15-19). These parents acted as informants in a pilot psychological autopsy study of adolescent suicide conducted in the Chicago area in 1987, 1988 and a portion of 1989. The 17 fathers and 35 mothers included in the present study voluntarily agreed to participate after being informed by letter of the investigation, first by the county coroner or medical examiner, and second by the principle investigators.

Groups of depressed (n=24) and non-depressed (n=28) parents were formed on the basis of scores on the Beck Depression Inventory (BDI). The mean BDI scores of the parents was 12.12 with a standard deviation of 8.10. A cutting score of 10 was used to classify subjects as depressed.

Suicide Victims. The demographic characteristics of the

adolescent suicide victims whose parents were the subjects of the present study are as follows: white males, 80% (n=31); black males, 7.5% (n=3); white females, 10% (n=4); and black females, 2.5% (n=1). Victims aged 15-19 years were eligible for inclusion the adolescent psychological autopsy study. Those whose parents were included in the present investigation had a mean age of 17.4 years. Their suicides occurred during a 25 month period; from January 1987 through January 1989 in Cook, Lake, and DuPage Counties in Illinois.

The suicide victims represent 51%, 32%, and 2.5% of the adolescent deaths of this nature in these counties for the years 1987, 1988, and 1989, respectively. The principle investigators found the refusal rate to be 12% in 1987 and 1988, however, the rate of inclusion of parent subjects in the present investigation was lower than in the broader study because of missing data.

Instruments

The Beck Depression Inventory (BDI) (Beck & Beamesderfer, 1974) consists of 21 symptoms and attitudes derived by its developers from clinical observation of depressed psychiatric patients. This instrument is specifically designed and most useful for measuring the cognitive aspects of depression (Louks, Hayne, & Smith, 1989). The items in the inventory are subjectively rated by the patient or subject for presence and severity on a scale of 0 to 3. Numerous investigations

indicate that this instrument has been correlated with clinical ratings of depression within a range of 0.60 to 0.90. Test-retest reliability of the BDI is high ($r \geq 0.70$) (Steer, Beck, & Garrison, 1986).

The Schedule for Affective Disorders for School-Age Children, Epidemiologic Version (K-SADS-E) (Orvaschel & Puig-Antich, 1986) is a semi-structured diagnostic interview designed to rate the presence of past and current episodes of psychiatric disorders in children (ages 6-17). The items in this interview correspond to the diagnostic criteria in DSM-III and DSM-III-R. Test-retest reliabilities for the individual scales contained in the interview range from 0.24 to 0.76 (Chambers et al., 1985). With the exception of the Anxiety Disorders, the reliability of the K-SADS-E is considered adequate (Chambers et al., 1985).

Dependent measure The dependent measure of parents' symptom ratings of their adolescent children was the total number of DSM-III-R symptoms endorsed for each disorder respectively. Totals of symptoms endorsed were converted to the percentages of available symptoms that they represented for the purpose of subjecting them to parametric analyses.

Procedure

After responding affirmatively to the investigators' solicitation of their participation, parents were interviewed in their homes or in the offices of the investigators.

Experienced clinicians (a Ph.D. psychologist, M.S.W., or M.S.N) who were specially trained to administer the K-SADS-E conducted the interviews regarding the suicide victim. Upon completion of this phase of data collection the parents completed the Beck Depression Inventory (BDI) regarding their current states of mind and functioning.

CHAPTER III

RESULTS

The data were subjected to both correlational and categorical analyses and the results of these analyses failed to support the stated hypotheses. The means and standard deviations of the dependent measures, the total numbers and the percentages of symptoms endorsed for the respective disorders in each time interval are presented for all parents combined, for mothers, and for fathers in Tables 1 through 6.

Correlational analyses were conducted using parents' raw scores on the BDI and the total numbers of symptoms endorsed for each of the individual disorders that were rated. These analyses failed to support the hypothesis that predicted a positive relationship between parents' BDI scores and positive ratings of symptoms in their adolescent children. These analyses were conducted with mothers and fathers combined to form a single group (Table 7) and with separate groups of mothers (Table 8) and fathers (Table 9). The prediction that this effect would be significantly greater in mothers than in fathers was tested by way of a z Test of the Difference Between r's. These comparisons revealed no significant differences between correlations of mothers' Beck scores and positive symptom endorsement and correlations of

fathers' Beck scores and positive symptom endorsement (Table 10).

Table 1

Means and Standard Deviations of Total Number of Symptoms Endorsed By All Parents

PAST

	DEP	MANIAS	A.D.D.
N OF CASES	52	52	52
MEAN	2.00	0.77	0.96
STANDARD DEV	2.15	1.40	1.66

CURRENT

	DEP	MANIAS
N OF CASES	52	52
MEAN	2.69	0.70
STANDARD DEV	2.16	1.15

EVER

	DEP	MANIAS	C.D.	SUB.AB.
N OF CASES	52	52	52	52
MEAN	3.08	0.94	1.23	0.67
STANDARD DEV	2.29	1.46	1.73	1.58

Table 2

Means and Standard Deviations of Percentage of Symptoms Endorsed By All Parents

PAST

	DEP	MANIAS	A.D.D.
N OF CASES	52	52	52
MEAN	0.22	0.11	0.07
STANDARD DEV	0.24	0.20	0.12

CURRENT

	DEP	MANIAS
N OF CASES	52	52
MEAN	0.30	0.11
STANDARD DEV	0.24	0.20

EVER

	DEP	MANIAS	C.D.	SUB.AB.
N OF CASES	52	52	52	52
MEAN	0.34	0.13	0.09	0.08
STANDARD DEV	0.26	0.20	0.13	0.18

Table 3

Means and Standard Deviations of Total Number of Symptoms Endorsed By Mothers

PAST

	DEP	MANIAS	A.D.D.
N OF CASES	35	35	35
MEAN	2.17	0.97	1.00
STANDARD DEV	2.32	1.58	1.66

CURRENT

	DEP	MANIAS
N OF CASES	35	35
MEAN	2.83	0.86
STANDARD DEV	2.26	1.19

EVER

	DEP	MANIAS	C.D.	SUB.AB.
N OF CASES	35	35	35	35
MEAN	3.26	1.20	1.34	0.66
STANDARD DEV	2.43	1.59	1.89	1.73

Table 4

Means and Standard Deviations of Percentage of Symptoms Endorsed By Mothers

PAST			
	DEP	MANIAS	A.D.D.
N OF CASES	35	35	35
MEAN	0.24	0.14	0.07
STANDARD DEV	0.26	0.23	0.12

CURRENT		
	DEP	MANIAS
N OF CASES	35	35
MEAN	0.31	0.15
STANDARD DEV	0.25	0.23

EVER				
	DEP	MANIAS	C.D.	SUB.AB.
N OF CASES	35	35	35	35
MEAN	0.36	0.17	0.10	0.07
STANDARD DEV	0.27	0.23	0.15	0.19

Table 5

Means and Standard Deviations of Total Number of Symptoms Endorsed By Fathers

PAST			
	DEP	MANIAS	A.D.D.
N OF CASES	17	17	17
MEAN	1.65	0.35	0.88
STANDARD DEV	1.77	0.79	1.69

CURRENT		
	DEP	MANIAS
N OF CASES	17	17
MEAN	2.41	0.35
STANDARD DEV	1.97	1.00

EVER				
	DEP	MANIAS	C.D.	SUB.AB.
N OF CASES	17	17	17	17
MEAN	2.71	0.41	1.0	0.71
STANDARD DEV	1.99	1.00	1.37	1.26

Table 6

Means and Standard Deviations of Percentage of Symptoms Endorsed By Fathers

PAST			
	DEP	MANIAS	A.D.D.
N OF CASES	17	17	17
MEAN	0.18	0.05	0.06
STANDARD DEV	0.20	0.09	0.12

CURRENT		
	DEP	MANIAS
N OF CASES	17	17
MEAN	0.27	0.04
STANDARD DEV	0.22	0.11

EVER				
	DEP	MANIAS	C.D.	SUB.AB.
N OF CASES	17	17	17	17
MEAN	0.30	0.05	0.08	0.08
STANDARD DEV	0.22	0.12	0.11	0.14

Table 7

Pearson Correlation Matrix for All Parents BDI Scores And Total Number of Symptoms Rated Positive

NUMBER OF OBSERVATIONS: 52

PAST

	BECK	DEP	MANIAS	A.D.D.
BECK	1.00			
DEP	0.02	1.00		
MANIAS	0.23	0.41	1.00	
A.D.D.	0.02	0.11	0.29	1.00

CURRENT

	BECK	DEP	MANIAS
BECK	1.00		
DEP	0.07	1.00	
MANIAS	0.10	0.53	1.00

EVER

	BECK	DEP	MANIAS	C.D.	SUB.AB.
BECK	1.00				
DEP	0.06	1.00			
MANIAS	0.16	0.48	1.00		
C.D.	0.02	0.24	0.32	1.00	
SUB. AB.	-0.04	0.33	0.39	0.39	1.00

Table 8

Pearson Correlation Matrix for Mothers' BDI Scores and Total Number of Symptoms Rated Positive

NUMBER OF OBSERVATIONS: 35

PAST	BECK	DEP	MANIAS	A.D.D.
BECK	1.00			
DEP	0.04	1.00		
MANIAS	0.21	0.36	1.00	
A.D.D.	0.02	0.12	0.39	1.00

CURRENT	BECK	DEP	MANIAS
BECK	1.00		
DEP	0.08	1.00	
MANIAS	0.05	0.59	1.00

EVER	BECK	DEP	MANIAS	C.D.	SUB.AB.
BECK	1.00				
DEP	0.07	1.00			
MANIAS	0.12	0.50	1.00		
C.D.	0.06	0.44	0.42	1.00	
SUB.AB.	-0.04	0.32	0.37	0.50	1.00

Table 9

Pearson Correlation Matrix for Fathers' BDI Scores and Total Number of Symptoms Rated Positive

NUMBER OF OBSERVATIONS: 17

PAST	BECK	DEP	MANIAS	A.D.D.
BECK	1.00			
DEP	-0.16	1.00		
MANIAS	0.07	0.64	1.00	
A.D.D.	-0.01	0.07	-0.11	1.00

CURRENT	BECK	DEP	MANIAS
BECK	1.00		
DEP	-0.05	1.00	
MANIAS	0.06	0.34	1.00

EVER	BECK	DEP	MANIAS	C.D.	SUB.AB.
BECK	1.00				
DEP	-0.06	1.00			
MANIAS	0.03	0.38	1.00		
C.D.	-0.25	-0.50	-0.23	1.00	
SUB.AB.	-0.04	0.41	0.59	-0.00	1.00

Table 10

Results of Z Tests of the Difference between r's

	r of BDI and positive rating			
	Mothers	Fathers	z	p
Time/Disorder				
Past Dep	.04	.16	.01	ns
Past Manias	.21	.07	.54	ns
Past A.D.D.	.02	.01	.03	ns
Current Dep	.08	.05	.13	ns
Current Manias	.05	.06	-.04	ns
Ever Dep	.07	.06	.01	ns
Ever Manias	.12	.03	.29	ns
Ever C.D.	.06	-.25	.99	ns
Ever Sub. Abuse	-.04	-.04	.00	ns

The hypothesis that predicted a main effect of depression upon parent reports of psychopathology in their adolescents was tested by analyses of variance that were also nonsignificant. These analyses were conducted separately for each time interval (past, current, and ever), and compared depressed to nondepressed mothers and depressed to nondepressed mothers and fathers combined. Means and standard deviations are presented in Tables 11 and 12. For both sub-samples the past condition was tested with a 2x3 analyses of variance, the levels of the second factor being depression, mania, and attention deficit disorder; the current condition was tested with a 2x2 analysis of variance, the levels of the second factor being depression and mania; and the ever condition was tested with a 2x4 analysis of variance, the levels of the second factor being depression, mania, conduct disorder, and substance abuse/dependence. None of the F tests for the main effect contrasting depressed with nondepressed parents (mothers or mothers and fathers combined) nor the F tests examining the interaction between parent group and type of disorder endorsed yielded significance. Summary tables are presented in Tables 13 through 18.

Table 11

Means and Standard Deviations of Percentages of Available Symptoms Endorsed by Depressed and Nondepressed Mothers

Depressed Mothers N=23

PAST				
	DEP	MANIAS	A.D.D.	
MEAN	0.24	0.14	0.07	
STANDARD DEV	0.26	0.22	0.13	
CURRENT				
	DEP	MANIAS		
MEAN	0.29	0.11		
STANDARD DEV	0.25	0.16		
EVER				
	DEP	MANIAS	C.D.	SUB.AB.
MEAN	0.35	0.17	0.09	0.05
STANDARD DEV	0.27	0.23	0.14	0.12

Nondepressed Mothers N=12

PAST				
	DEP	MANIAS	A.D.D.	
MEAN	0.24	0.13	0.07	
STANDARD DEV	0.26	0.24	0.11	
CURRENT				
	DEP	MANIAS		
MEAN	0.37	0.23		
STANDARD DEV	0.26	0.31		
EVER				
	DEP	MANIAS	C.D.	SUBAB
MEAN	0.39	0.18	0.13	0.12
STANDARD DEV	0.27	0.23	0.16	0.29

Table 12

Means and Standard Deviations of Percentages of Available Symptoms Endorsed by Depressed and Nondepressed Mothers and Fathers Combined

Depressed Parents N=28

PAST				
	DEP	MANIAS	A.D.D.	
MEAN	0.21	0.12	0.07	
STANDARD DEV	0.24	0.21	0.12	
CURRENT				
	DEP	MANIAS		
MEAN	0.27	0.09		
STANDARD DEV	0.25	0.15		
EVER				
	DEP	MANIAS	C.D.	SUB.AB.
MEAN	0.33	0.14	0.08	0.04
STANDARD DEV	0.27	0.22	0.13	0.11

Nondepressed Parents N=24

PAST				
	DEP	MANIAS	A.D.D.	
MEAN	0.23	0.09	0.06	
STANDARD DEV	0.24	0.19	0.12	
CURRENT				
	DEP	MANIAS		
MEAN	0.33	0.14		
STANDARD DEV	0.24	0.25		
EVER				
	DEP	MANIAS	C.D.	SUBAB
MEAN	0.36	0.12	0.11	0.11
STANDARD DEV	0.25	0.19	0.14	0.22

Table 13

Analysis of Variance Summary Table for Ratings By Mothers of Symptoms Exhibited in the Past

Source	SS	df	MS	F	p
Between subjects					
Depresssion	0.00	1	0.00	0.01	0.93
Subjects within groups	2.31	33	0.07		
Within subjects					
Disorder	0.46	2	0.23	6.92	0.00
Depression x Disorder	0.00	2	0.00	0.01	0.10
Disorder x S's within groups	2.19	66	0.03		

Disorders Rated: Depression, Hypomania/Mania, Attention Deficit Disorder

Table 14

Analysis of Variance Summary Table for Ratings By Mothers of Current Symptoms

Source	SS	df	MS	F	p
Between subjects					
Depresssion	0.17	1	0.17	2.02	0.17
Subjects within groups	2.74	33	0.08		
Within subjects					
Disorder	0.41	1	0.41	14.18	0.00
Depression x Disorder	0.01	1	0.01	0.17	0.68
Disorder x S's within groups	0.96	33	0.03		

Disorders Rated: Depression, Hypomania/Mania

Table 15

Analysis of Variance Summary Table for Ratings By Mothers of Symptoms Ever Exhibited

Source	SS	df	MS	F	p
Between subjects					
Depresssion	0.05	1	0.05	0.05	0.48
Subjects within groups	3.33	33	0.10		
Within subjects					
Disorder	1.57	3	0.52	18.46	0.00
Depression x Disorder	0.02	3	0.01	0.17	0.91
Disorder x S's within groups	2.80	99	0.03		

Disorders Rated: Depression, Hypomania/Mania, Conduct Disorder, Substance Abuse

Table 16

Analysis of Variance Summary Table for Ratings By All Parents of Symptoms Exhibited In The Past

Source	SS	df	MS	F	p
Between Subjects					
Depression	0.00	1	0.00	0.03	0.86
Subjects within groups	2.86	50	0.06		
Within Subjects					
Disorder	0.66	2	0.33	12.09	0.00
Depression x Disorder	0.02	2	0.01	0.28	0.76
Disorder x S's within groups	2.76	100	0.03		

Disorders Rated: Depression, Hypomania/Mania, Attention Deficit Disorder

Table 17

Analysis of Variance Summary Table for Ratings By All Parents of Current Symptoms

Source	SS	df	MS	F	p
Between subjects					
Depresssion	0.07	1	0.06	0.91	0.34
Subjects within groups	3.59	50	0.07		
Within subjects					
Disorder	0.90	1	0.90	33.55	0.00
Depression x Disorder	0.00	1	0.00	0.02	0.89
Disorder x S's within groups	1.34	50	0.03		

Disorders Rated: Depression, Hypomania/Mania

Table 18

Analysis of Variance Summary Table for Ratings By All Parents of Symptoms Ever Exhibited

Source	SS	df	MS	F	p
Between subjects					
Depresssion	0.04	1	0.04	0.45	0.51
Subjects within groups	3.97	50	0.71		
Within subjects					
Disorder	2.34	3	0.78	30.37	0.00
Depression x Disorder	0.05	3	0.02	0.70	0.55
Disorder x S's within groups	3.85	150	0.03		

Disorders Rated: Depression, Hypomania/Mania, Conduct Disorder, Substance Abuse

CHAPTER IV

DISCUSSION

The results of this study failed to demonstrate a pattern of negative bias (i.e., a significant tendency to endorse symptoms) among groups of depressed parental survivors of adolescent suicide. No differences existed between ratings given by depressed and nondepressed parents who were queried about symptoms of psychopathology in their deceased offspring. This finding is consistent with the investigation conducted by Brent and his colleagues (1988) which was also designed to assess the potential confound that informant depression poses to the psychological autopsy method of investigating the lives of suicide victims.

The obtained results are inconsistent with the reviewed literature pertaining to the effects of depression upon memory and inferences processes, as well as with the literature that examined the distortion present in the clinical data yielded by depressed parents rating their living children. The results of this study and those of the investigation conducted by Brent et al. (1988) raise questions as to why the memories and judgments of parents of suicide completers may be less susceptible to the influence of depression than would be expected. The divergence of

these results from those reported by other researchers examining interrater reliability may be explained by the differences in the ages of the children being rated. The research available regarding the impact of depression upon parental perceptions of their children is confined primarily to a younger population than the 15-19 year old sample of suicide victims. Parental depression may be a more significant factor with parents of younger children, perhaps because by necessity these youths tend to exact more direct contact, basic care, and attention from parents. These circumstances of greater parent-child contact may, in turn, heighten the potential for the depressed parent to exaggerate problematic behaviors and normal variations in the conduct of their children. Conversely, generally held perceptions about adolescents may cause all parents (including those that are depressed) to view potentially significant behavior as simply a part of this turbulent developmental epoch and therefore to minimize clinically significant features. Teenagers are expected to evolve rapidly, to experiment with different roles, and to become less involved with the family as they correspondingly gravitate toward the peer group. This may result in parents' allowing more latitude in their behaviors before classifying these behaviors as particularly significant or abnormal.

Alternatively, the absence of a significant difference between the reports of depressed and nondepressed parents in

this study may be related to the quality of their depressions. Unlike other studies of depressed parents, those in the present investigation were bereaved. Thus, qualitative differences may exist between the depressions evidenced by parents of suicide victims and parents of living children, which may be explained by bereavement. It would be reasonable to assume that some proportion of the former group of parents are experiencing reactive depressions in response to the tragic deaths of their children. In samples of parents of living children, it is not unthinkable that by chance, some may be suffering bereavements from other losses, but two differences between the groups may explain their incongruent reporting styles. First, the parents of suicide victims are being asked to recall memories of the object of their loss, which differentiates their task from that of a parent who is bereaved because of a loss other than that of the child about whom they are reporting. Second, parents of suicide victims who are suffering from depressions that have arisen as a response to the suicide may find it too painful to recall what may retrospectively appear to have been warning signs of their child's ultimate self-destruction. It is also possible that parents who react to the suicide by becoming depressed are also the ones that feel most responsible for their child's demise and defend against recalling any markers of their child's self destructive behavior. Thus, this effect may temper the predicted pattern

of negativity.

Family systems data may be useful in ascertaining the degree to which informants feel that they may be entirely forthright in their testimony to the researchers. Members of a family separated from the world by a rigid boundary may be less likely to offer what they see as embarrassing or overly personal information to researchers. In fact, since social support can protect people from depression, it may be that such members of "closed system" families are overrepresented in the depressed group of parents. Thus, an unwillingness to disclose details of pathology (i.e., a pattern of withholding) may have obscured the effects of their depressed mood state upon their recollections of the adolescent.

Despite the support that this study seems to lend to the use of informants to re-create accurate psychological profiles of suicide completers, conclusions must be tentative, given the weaknesses of the present investigation. Several limitations are presented by the sample. The sample size in this study was small; a minimal but significant effect of depression may emerge with a larger sample because error variance would be minimized. A second threat posed by the sample in this study is its heterogeneity. It consisted of some intact parental pairs, some individual mothers, and some individual fathers. The individual parents can be further differentiated in that in some cases when an individual parent participated it was in the circumstance of

him or her being divorced from the adolescent's other biological parent, while in other cases the individual parent participants had an intact marriage and their partner declined participation in the study. It is unclear whether these differences in family constellation and parental participation confound a parent's testimony. With respect to the former, it was not possible to test for interactions between depression and single parenthood or depression and any of the other family structure variables because of the limited sample size.

Another limitation of the sample used in this study is that not all of the observations can be assumed to have been independent. Twenty-eight of the observations came from individual members of intact parent pairs. In five of these pairs, only one of the two parents was depressed. It is unclear whether the impressions of a depressed parent may influence those of the nondepressed parent or vice versa. If influence were present in either direction, however, differences between parents in depressed and nondepressed mood states might be obscured. A married parent that is participating alone may, in effect, be a spokesperson for the couple. In addition to being influenced by his or her own mood, this family representative may be influenced by the impressions of his or her spouse.

The data used in this study are archival, limiting the author's ability to add or manipulate factors that would make

the investigation more interpretable. Thus, it is unclear whether the parents' depression scores were related to participation in the study itself. Since parents completed the BDI after being interviewed about their child, there is no way of ascertaining their mood states at the outset of the study. Reminiscing about their children may have been painful and caused higher depression ratings to emerge at some point in the process. Alternatively, revealing these facts to an empathic professional may have been cathartic for some of the participants, lessening their subjective feelings of distress by the end of the interview. This factor may be argued to have been less of a threat if the informants had rendered all of their impressions during a single interview; however, this was not the case. In some instances weeks elapsed between the initial in person contact with the interviewer and the end of the parents' interaction with them. The K-SADS-E alone is estimated to take several hours, and numerous other instruments were administered over the course of the study. It would have been illuminating to have systematically manipulated the order of administration of the instruments, as it would have allowed for detection of the effects of participation upon the informants' moods.

Had they emerged, sorting out observed differences between depressed and nondepressed parents would have posed a vexing task of interpretation. If the hypothesis that depressed parents would yield higher ratings of

psychopathology is retested and confirmed, the investigator will be left to determine whether these are more or less accurate than informants who are nondepressed but provide less pathological profiles of the same adolescent. The depressed parent may project his or her own feelings, thereby distorting or exaggerating. Alternatively, he or she may empathize more accurately with the victim than his or her nondepressed counterpart.

Positive associations between parental depression and symptom endorsement for all time intervals or for disorders other than depression would have lent support to the hypothesis of global negative distortions among persons who are depressed. A further supporting finding would be an observation of elevated ratings of the adolescent's psychopathology for all time intervals by parents who are depressed at the time of the interview but have no prior history of depression. This would be consistent with a distortion hypothesis based upon the predicted effects of mood congruence.

A finding of a positive association only for past disorders would have indicated the necessity to more thoroughly examine the parental informant's own history of depression. If the parent had experienced a depression at the time that the youth was still living it must be questioned whether his or her reporting style was a function of state-dependent learning such that it could have been

assumed to have been a more accurate account of the child's symptomatology. Moreover, if a parent with a prior history of depression rates his or her child as having been depressed, this would be plausible. The children of depressed parents would be expected to evidence higher rates of depression than those of nondepressed parents. Therefore, it would be precipitous to rule out the testimony of these parents simply by virtue of their own negative mood state. Such an observed difference may suggest that the parent is actually more accurate than informants who did not rate the subject as having been depressed. This is because the report is not globally negative as would be suggested by high ratings of several or all disorders, and because children of depressed adults run greater risk of depression than would be expected in the general population. Nevertheless, to be scientifically admissible, further support of reports of depression by these parents should be supported by ancillary sources such as the observations of other informants, medical records, and perhaps even by the indications of the deceased him- or herself, which may be garnered from suicide notes and tapes. Thus, cases in which a parental informant is depressed may necessitate special handling in order to reach an accurate final diagnosis of the deceased youth.

Given the limited state of our knowledge of the factors that skew parents' reports of psychopathology in their children who have died by suicide the value of their reports

is questionable. Nevertheless, it is unlikely that we may develop a comprehensive understanding of the significant antecedents of suicide without the contributions of people who were close to the victim and knew him or her best. Thus, approaches designed to detect and minimize the inclusion of dubious reports in final diagnostic determination warrant further exploration.

First, future research should be designed to examine the present question with larger and more homogenous samples. Second, numerous additional factors that may impact the testimony of all informants should be identified and tested. Among these additional factors would be the informant's own beliefs about suicide (e.g., his or her personal hypotheses of its cause), the informant's hypotheses about the research study itself, the genders of the informant and the suicide victim, the method of suicide, and whether or not the informant was the person who discovered the body. The roles of other psychological factors, such as shame and guilt, should also be investigated.

The goal of identifying and measuring emotional, cognitive, social, and familial factors that may distort the recollections of informants is to minimize error in reaching psychiatric determinations regarding the suicide victim. The risk of obtaining invalid results, however, is not limited to factors emanating from the informants. The expectancies of the investigators and the interviewers may influence the

outcome of the research as well. Specifically, the interviewers in the psychological autopsy are not naive. They are blind neither to the experimental hypotheses nor to the suicide itself. Their personal hypotheses should be assessed and monitored in order to detect any pattern of influence that they exert upon the information they contribute to the study.

Finally, the myriad of data that are assembled in the course of the psychological autopsy should be managed in such a way that accuracy is maximized. As noted previously, this may be achieved by using a multi-method approach to integrating the data rather than to treat various datum only as sources to perform tests of individual hypotheses. For instance, medical records may be used to support tentative evidence supplied by an informant that the youngster experienced a period of depression. Some of the vegetative symptoms of depression may have been observed and noted by a physician. This would be in addition to using the medical records to test an a priori hypothesis that specifically calls for the medical record (e.g., to determine if suicidal individuals are more likely to have visited their physician in the months preceding their suicide).

A strategy for identification and minimization of error is the addition of a debriefing phase to the psychological autopsy. This would enable investigators to ascertain the informants' expectations of the study; whether they

accurately anticipated the depth or nature of the material that they would be asked to supply and the degree of distress they would experience during the course of the inquiry, as well as whether they found it to be inappropriately intrusive and/or were preoccupied with a concern for the negative light in which they may have been casting their loved one.

The psychological autopsy is undoubtedly a valuable tool for determining the psychological and life circumstances of those who die by suicide. Nevertheless, the extent to which the informants in such a study are influenced by their own emotional states, their hypotheses about the suicide, and the comfort that they feel with participating in the investigation remains unclear. Additionally, the nonorthogonal nature of informant collectives suggests that when one or more of the previously noted factors causes distortions in the memories or perceptions of one informant, this effect may color the impressions of other informants. Future research designed to estimate the impact of these threats to the validity of the psychological autopsy should be undertaken if suicidologists are to be able to draw scientifically sound conclusions from such endeavors.

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Appendix

Diagnostic Criteria for Major Depressive Disorder

A. symptoms:

(1) depressed mood (or can be irritable mood in children and adolescents) most of the day, nearly every day, as indicated by either subjective account or observation of others
(2) markedly diminished interest or pleasure in all, or almost all activities most of the day nearly every day (as indicated by subjective account or observation of others of apathy most of the time)
(3) significant weight loss or weight gain when not dieting (e.g., more than 5% of body weight in a month), or decrease or increase in appetite nearly every day (in children, consider failure to make expected weight gains)
(4) insomnia or hypersomnia nearly every day
(5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)
(6) fatigue or loss of energy nearly every day
(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)
(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)
(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide (American Psychiatric Association, 1987)

Diagnostic Criteria for Hypomanic/Manic Episode

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood.

B. symptoms:

(1) inflated self-esteem or grandiosity
(2) decreased need for sleep, e.g., feels rested after only three hours of sleep
(3) more talkative than usual or pressure to keep talking
(4) flight of ideas or subjective experience that thoughts are racing
(5) distractibility, i.e., attention too easily drawn to unimportant or irrelevant external stimuli
(6) increase in goal-directed activity (either socially, at work, or school, or sexually) or psychomotor agitation
(7) excessive involvement in pleasurable activities which have a high potential for painful consequences, e.g., the person engages in unrestrained buying sprees, sexual indiscretions, or foolish business investments (American Psychiatric Association, 1987)

Diagnostic Criteria for Attention-deficit Hyperactivity Disorder

A. behaviors:

(1) often fidgets with hands or feet or squirms in seat (in adolescents, may be limited to subjective feelings of restlessness)
(2) has difficulty remaining seated when required to do so
(3) is easily distracted by extraneous stimuli
(4) has difficulty awaiting turn in games or group situations
(5) often blurts out answers to questions before they have been completed
(6) has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension) e.g., fails to finish chores
(7) had difficulty sustaining attention in tasks or play activites
(8) often shifts from one uncompleted activity to another
(9) has difficulty playing quietly
(10) often talks excessively
(11) often interrupts or intrudes on others, e.g., butts into other children's games
(12) often does not seem to listen to what is being said to him or her
(13) often loses things necessary for tasks or activities at school or at home (e.g., toys pencils, books, assignments)
(14) often engages in physically dangerous activies without considering possible consequences (not for the purpose of thrill-seeking), e.g., runs into street without looking (American Psychiatric Association, 1987)

Diagnostic Criteria for Conduct Disorder

A. behaviors:

(1) has stolen without confrontation of a victim on more than one occasion (including forgery)
(2) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning)
(3) often lies (other than to avoid physical or sexual abuse)
(4) has deliberately engaged in fire setting
(5) is often truant from school (for older person, absent from work)
(6) has broken into someone else's house building, or car
(7) has deliberately destroyed others' property (other than by fire-setting)
(8) has been physically cruel to animals
(9) has forced someone into sexual activity with him or her
(10) has used a weapon in more than one fight
(11) often initiates physical fights
(12) has stolen with confrontation of a victim (e.g., mugging, purse snatching, extortion, armed robbery)
(13) has been physically cruel to people (American Psychiatric Association, 1987)

Diagnostic Criteria for Psychoactive Substance Abuse/Dependence

A. symptoms:

(1) substance often taken in larger amounts or over a longer period than the person intended
(2) persistent desire or one or more unsuccessful efforts to cut down or control substance use
(3) a great deal of time spent in activities necessary to get the substance (e.g., theft), taking the substance (e.g., chain smoking), or recovering from its effects
(4) frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations at work, school, or home (e.g., does not go to work because hung over, goes to school or work "high," intoxicated while taking care of his or her children), or when substance use is physically hazardous (e.g., drives when intoxicated)
(5) important social, occupational, or recreational activities given up or reduced because of substance use
(6) continued substance use despite knowledge of having a persistent or recurrent social, psychological, or physical problem that is caused or exascerbated by the use of the substance (e.g., keeps using heroin despite family arguments about it, cocaine-induced depression, or having an ulcer made worse by drinking
(7) marked tolerance: need for markedly increased amounts of the substance (i.e., at least a 50% increase) in order to achieve intoxication or the desired effect, or markedly diminished effect with continued use of the same amount
(8) characteristic withdrawal symptoms
(9) substance often taken to relieve or avoid withdrawal symptoms (American Psychiatric Association, 1987)

Approval Sheet

The thesis submitted by Sharon L. Telcser 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.

7-30-92
Date


Director's Signature