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Parental Deprivation
and
Endogenous Depression

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Abstract

Twenty endogenous depressives, twenty reactive depressives, twenty schizophrenics and twenty randomly selected normal subjects were studied to compare familial features, incidence of actual and perceived parental deprivation and incidence of suicidal thoughts and suicide attempts. The major hypothesis was that endogenous depressives would suffer more parental deprivation than other groups including reactive depressives, previous research having not generally differentiated between the two types of depressives. Data was gathered from an interview which was based on a questionnaire. Endogenous depressives were found to be more likely to have had both parents absent from the home for some period, and were more likely to have felt as children that their fathers did not love them and to continue to believe this as adults. Normals were found to have a lower incidence of suicidal thoughts and suicidal attempts than the other three groups. Although results seldom reached statistical significance reactive depressives tended to be less parentally deprived on almost all variables. Results suggest that while in the past research related to parental deprivation has focused primarily on the mother-child relationship the area of father-child relationships may be at least equally important.

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Introduction

Depression is not a phenomenon peculiar to the twentieth century. It was first described by Hippocrates in the fourth century B.C. and Plutarch in the second century A.D. (Beck, 1967; Friedman & Katz, 1974). History and literature abound with examples of depressives, such as the Biblical Job and Saul (Friedman & Katz, 1974; Klerman, 1979), and Shakespeare's Hamlet (Gaylin, 1968). The standard work on depression for over three hundred years was Robert Burton's The Anatomy of Melancholy (Burton, 1621), first published in 1621. Burton reviews past literature on the subject, discusses its causes (which include "devils", "witches", "overmuch study", "and poverty and want"), its cures (which include "exercise", "help from friends by counsel", "alteration of his course of life", "mirth and merry company"), and defines it as "a kind of dotage without a fever, having for his ordinary companions fear and sadness without any apparent occasion".

In the twentieth century 'depression' is a term used widely and with varying meanings. Lay people tend to use the term synonymously with 'unhappiness' but psychologists and psychiatrists use it in a more specialized way. Clinical depression is a psychological condition characterised by a cluster of symptoms which may vary from individual to individual but generally include the following: Affective symptoms: Dejected mood, self-dislike, loss of gratification, loss of attachments, crying spells, loss of mirth response. Motivational symptoms: Loss of motivation, suicidal wishes. Cognitive symptoms: Low self-evaluation, negative expectations, self-blame and criticism, indecisiveness, distorted self-image. Physical symptoms: Loss of appetite, sleep disturbance, loss of libido, fatigability (Beck, 1967).

Or if we prefer a more subjective but explicit picture of a depressive:

The patient is sad and in painful tension. He is intolerant of his condition, thereby increasing his distress. His self-esteem is abased, his self-confidence shattered. Retardation of his initiative, thinking and motor actions make him incapable of sustained action. His behaviour indicates open or underlying fears and guilty fears. He is demonstratively preoccupied with his alleged failings, shortcomings, and unworthiness; yet he also harbours a deep resentment that life does not give him a fair deal.

He usually has suicidal ideas and often suicidal impulses. His sleep is poor; his appetite and sexual desire are on the wane or gone. He takes little or no interest in his work and ordinary affairs and shies away from affectionate as well as competitive relationships. All in all, he has lost his capacity to enjoy life. He is drawn into a world of his own imagination, a world dedicated to the pursuit of suffering rather than the pursuit of happiness.

Such attacks may be occasioned by a serious loss, failure or defeat.... Their onset may be sudden ... their duration from a few days to many months.... Often there are conspicuous physical symptoms, such as loss of weight and constipation. (Gaylin, 1968, p. 97)

It is estimated that the prevalence rate of clinical depression in Western society is 3-4%. Of these depressives approximately 20% are treated professionally, 2% are hospitalized and .5% commit suicide (Lehmann, 1971).

Depression has been classified into a wide range of sub-types: psychotic, neurotic, reactive, psychotic reactive, involuntional, agitated, endogenous, psychogenic, symptomatic, presenile, senile, acute, chronic, manic-depressive psychosis, melancholia (major and minor), depression in sexual perversion, alcoholic depressive symptoms resulting from organic disorder. These are only some of the terms used, many of which are synonymous and used by different writers to refer to identical conditions. (see Beck, 1967; Becker, 1974)

The most common distinction is that between endogenous and exogenous depression. Exogenous depression is also known as reactive depression, depressive neurosis, neurotic depression, neurotic depressive reaction, or situational depression, and is assumed to have a special external cause, i.e. the depression is caused by the patient's reaction to a special set of circumstances (stress, psychological trauma and conflict) (Beck, 1967; Becker, 1974; World Health Organisation, 1971), while the cause of endogenous depression is unknown--or the patient claims or appears to be unaware of the cause--but it is assumed to have biochemical, hormonal, or genetic--internal--causes.

The American Psychiatric Association (Diagnostic and Statistical Manual, 1971) classifies depression as either psychotic or neurotic.

The description of psychoneurotic depression in the American Psychiatric Diagnostic Manual (1971) reads in part:

The reaction is precipitated by a current situation, frequently by some loss sustained by the patient, and is often associated with a feeling of guilt for past failures or deeds.... The anxiety in this reaction is allayed, and hence partially relieved, by depression and self-depreciation.... The degree of reaction in some cases is dependent upon the intensity of the patient's ambivalent feeling toward his loss (love, possession) as well as upon the realistic circumstances of the loss.

Although the dichotomy of endogenous and reactive depression is not universally held (Leff, Roatch & Bunney, 1970; and Paykel, Myers, Dienelt, Klerman, Lindenthal & Pepper, 1969) it is accepted by the World Health Organization (1971). While it is not the place of this research to enter the controversy important work has been done in this area by Kiloh & Garside (1963), Carney, Roth & Garside (1965), and Lewinsohn, Zeiss, Zeiss & Haller (1977) whose factor-analytic studies seem to demonstrate that there are two distinct types of depression which differ in symptomatology and prognosis. However, Foulds & Caine (1959) and Foulds (1973) see the difference between endogenous and reactive depression as merely one facet of a more elaborate hierarchy, as does Mendels (1970) who postulates that endogenous depression represents the classic depressive syndrome while reactive states are mixed disorders in which depression is but one factor. Beck (1967), Kendell (1977) and Ni Bhrolchain, Brown & Harris (1979) made extensive reviews of extant studies and arrived at similarly inconclusive findings. Beck (1967) tends to the belief that there are two types of depression but feels that no definite conclusion could be made. Kendell (1977) concluded that although the controversy about the relationship between endogenous and reactive depressions remained unsolved there was widespread agreement on the need to distinguish between the two. Ni Bhrolchain et al (1979) suggested that thorough investigation of unselected samples of depressed patients in the general community was necessary before valid schemes of classification and diagnosis could be made.

Major theories of depression come from the psychoanalytic, cognitive and behavioural fields of psychology. These theories all accept the connection between loss and subsequent depression but differ in their explanations of the process by which this connection occurs.

Psychoanalytic theory is particularly relevant to the area of parental deprivation with its emphasis on experiences in infancy.

Sigmund Freud (1917) said:

In melancholia, the occasions which give rise to the illness extend for the most part beyond the clear case of loss by death, and include all those situations of being slighted, neglected and disappointed which can impart opposed feelings of love and hate into the relationship or reinforce an already existing ambivalence. (Gaylin, 1968, p. 60)

The psychoanalytic school generally considers the depressive is fixated at the oral stage of development. Rado (1932) relates this to the pleasurable sensations the infant experiences at his mother's breast as well as general feelings of security, warmth and nourishment.

Freud (1955) saw melancholia (depression) as a normal process of grieving. When a loved object is lost the mourner realises he must withdraw his attachment to the object. Because attachments are normally very strong, the ego can only slowly accept reality, but eventually it is freed. Freud says that melancholia occurs when there is no apparent object loss and therefore it appears to be related to an unconscious loss. The melancholic relates the loss to something within himself. He regresses to the oral phase and directs a sadism towards himself.

Fenichel (1968) described the narcissistic oral character of the depressive as a "person fixated on the state where his self-esteem is regulated by external supplies".

Most psychoanalysts see the origin of the dependent or oral character as being derived entirely from certain early childhood experiences.

Gaylin (1968) gives the definitions of Kierkegaard and Fenichel: Despair is never ultimately over the external object but always over ourselves. A girl loses her sweetheart and she despairs. It is not over the lost sweetheart, but over herself-without-the-sweetheart. And so it is with all cases of loss, whether it be money, power, or social rank. The unbearable loss is not really in itself unbearable. What we cannot bear is being stripped of the external object. We stand denuded and see the intolerable abyss of ourselves. (Kierkegaard, cited in Gaylin, 1968, p. 15)

Similarly Fenichel (in Gaylin, 1968) says, "Depression is a means of avoiding total dissipation of self-esteem. The precipitating experience in a depressed patient is either the loss of self-esteem or a loss of supplies which would secure or even enhance self-esteem". (Fenichel)

However, Sando Rado (in Gaylin, 1968) sees depression as anger towards the lost object which is internalized by the patient. He claims that in its extreme form this can manifest itself either in actual suicide of the patient or in such prolonged attempts at suicide as occur in anorexia nervosa.

Becker (1974) in defence of the psycho-analytic approach points out that "Notions like good and bad objects warring with each other, being introjected, assimilated, annihilated, etc., are apt to be intensely alien to behavioural scientists". (p 104). He continues that "The observational bases for such notions are all too likely to be dismissed out-of-hand. But the same observations formulated in terms of cognitive patterns or schemes may prove more acceptable".

A major cognitive theorist, Beck (1967) notes that theories such as Freud's formulation of depression in Mourning and Melancholia (1917) are so complex and remote from observable clinical material that they are not readily reduced to operational terms for systematic study.

Beck believes that depression may be viewed as the activation of a set of three major cognitive patterns that force the individual to view himself, his world and his future in an idiosyncratic way. The three patterns are (1) construing experiences in a negative way, (2) viewing himself in a negative way, (3) viewing the future in a negative way. The depressive interprets his experiences selectively or inappropriately and sees them as detracting from himself, as he also devalues himself.

Beck (1967) describes one of the salient features of depression as the sense of loss. The term 'loser' captures the flavour of the depressive's appraisal of himself and his experience. However, this view presents a problem in that, while the lost object is obvious in the case of the reactive depressive, in endogenous depression the lost object is not apparent.

A solution to this problem could lie in the behaviourists' approach where the claim is made that depression is caused by lack of reinforcement or the loss of a reinforcer. Ferster (1966) observed that a sudden change in the environment may denude an individual of his behavioural repertoire, because of the lowered frequency of emission of positively reinforced behaviour. Animal experiments (McKinney, Suomi & Harlow, 1971; Harlow, Suomi & McKinney, 1970; Kaufman & Rosenblum, 1967) suggest a number of ways to reduce sharply the occurrence of a behaviour: (1) require large amounts of a behaviour to produce reinforcement, (2) present aversive stimuli, (3) produce a sudden change in the environment by removing an important object which is either a reinforcer or a discriminative stimulus. If the lost object controlled a large amount of a person's behaviour this behaviour may drop out. Ferster described depression as a reduction of the total repertoire rather than just a reduction of one or two responses. As

such, no one of the above processes alone is likely itself to produce depression. Lazarus (1969) sees depression as a function of inadequate or insufficient reinforcers.

One can conclude from the literature that neurotic (reactive) depression is a response to a situation with which the depressive cannot cope--either an actual or a symbolic loss. The endogenous depressive has the same symptoms as the neurotic, often in a more severe form, without apparent cause. Can we not then hypothesize that this depression is also caused by loss--more severe and destructive of the ego than that suffered by the neurotic depressive? Could it not be related to the loss either of the physical presence of a natural parent or to the loss of some other similar reinforcer such as parental love, or what the patient perceives as the loss of love?

With this hypothesis in mind the following study was undertaken at Lake Alice Hospital from August, 1979, to July, 1980. It was designed (1) to investigate the incidence of parental deprivation among endogenous depressives, (2) to see whether the incidence of parental deprivation among endogenous depressives was significantly greater than the incidence among reactive depressives, schizophrenics, and normal subjects who had not suffered from psychiatric illness.

The present research uses the terms endogenous depression and manic-depression, depressed type synonymously. The terms reactive depression, exogenous depression, neurotic depression and depressive neurosis are also used interchangeably.

Five hypotheses were investigated.

Hypothesis 1: That there will be significant differences among endogenous depressives, reactive depressives, schizophrenics and normals on familial features: size of family, family position.

Hypothesis 2: That the incidence of actual and perceived parental deprivation will differ among endogenous depressives, reactive depressives, schizophrenics and normals.

Hypothesis 3: That endogenous depressives will report more actual parental deprivation than reactive depressives.

Hypothesis 4: That endogenous depressives will report that they perceive themselves as parentally deprived more than reported by reactive depressives.

Hypothesis 5: That there will be differences in the incidence of reported suicidal thoughts and reported suicide attempts among endogenous depressives, reactive depressives, schizophrenics and normals.

Parental Deprivation and Subsequent Endogenous Depression

Literature Review

Parental deprivation can take many forms. It can be the death of one or both parents; it can be the departure of a parent from the home as a result of separation or divorce or it can in its extreme form be the actual sending of a child from the home by the parents. Adoption may be seen as an example of the latter. A great deal of research has been undertaken which examines the effect on children of the loss of parents through death or separation, and this will be examined. Very little research has been done on the effects, in relation to later depression, of children being sent away from the home and placed in foster homes or institutions at the parents' request.

Because it is impossible for ethical and humanitarian reasons to set up experimental situations which manipulate such variables as parental bereavement, parental rejection, and other forms of parental deprivation, with human beings, all research must be ex post facto. Because of the inability to control other confounding variables with this type of research it is difficult to assert with confidence the relationship between the independent and dependent variables. Bowlby's (1951, 1960) work has been criticised particularly on this ground, but it applies to almost all studies dealing with human subjects in the area of parental deprivation. However, several experiments dealing with animals have been conducted in which there is more control of independent variables (e.g. McKinney, Suomi & Harlow, 1971, and Kaufman, 1967). The problem here is the degree of generalizability there is from the animal to the human situation. Some single subject

observational studies have also been undertaken (e.g. Freud, 1917) and these also raise the question how much results from single case studies are generalizable.

However, there are certainly enough studies to raise some interesting points, indicate some trends, and show some significant results, but very few of the studies are comparable because the subjects were of different age groups, or selected from different populations by different criteria, or there were no controls, or they were selected by different methods. In addition categorization of mental illness differs from study to study. In some studies illness is regarded as a rigidly classified mental condition, e.g. manic-depression or schizophrenia (Oltman, McGarry & Friedman, 1952; Parker, 1979) while in others the description is more general, e.g. negativistic behaviour (Pemberton & Benady, 1972) or delinquency (Misra, 1977).

The first major work in the field of parental deprivation was by Abraham (1911) who postulated some early infantile disappointment in love and suggested that a repetition of this disappointment in later life reactivated the primary depressive condition exemplified in the depressed type of manic depression.

In 1924 Abraham elaborated upon this theory, hypothesizing that oral eroticism predisposes individuals to depressive illness. Oral fixation, the result of repeated disappointments in the subject's relationship with his mother, leads to very ambivalent adult relationships. When adult love relationships fail, anger results, which leads to the lowered self-esteem seen in depressed patients. In this paper Abraham presented clinical evidence to support his hypothesis, citing several patients for whom sexual gratification was still associated with the nutritive act. However, as is common in the work of the psychoanalytic school controlled studies were not carried out, and the study tends to be anecdotal rather than empirical.

This was followed by a crucial piece of work relating depression to child-parent relationships produced by Melanie Klein in 1934. She believed that the predisposition to depression depended on the mother-child relationship in the first year of life. She maintained that the infant reacts to frustration and lack of gratification with rage and sadistic fantasies corresponding to his phase of development. In her view the infant's weakness of ego gives rise to feelings of helplessness, sadness, guilt and regret in the face of these tensions (the depressive position). The weakness of the infantile ego also stimulates the fear of being exterminated by these impulses. The external persecutor is now introjected, and the child has fears even when the external object is not present and distorts the dangers when it is present (the persecutory or paranoid position). She believes that children experience these feelings until they become fully assured of their mother's love for them. Those children who do not meet with sufficient love, Melanie Klein presumes to be always predisposed to return to the depressive position, i.e. to feelings of loss, sorrow, guilt and lack of self-esteem. Klein felt that the child, as a defensive technique, denies the complexity of his love object and sees it as all good or all bad. She found that this tendency is characteristic of the adult manic-depressive.

Beck (1967) points out that some writers have presented theories of depression that are so elaborate that they cannot be correlated with clinical material and says the Klein's formulation of adult depression as a reactivation of an early infantile depression "does not provide any bridge to observable behaviour". (p. 253).

Spitz, (1945, 1946) however, has shown examples of observable behaviour. He described a syndrome occurring in hospitalized infants. It arose during the period from age 6 months to 12 months when the mothers who had reared the babies from birth were removed. The babies

were at first apprehensive and weepy, then showed symptoms of withdrawal, rejection of environment, retardation of reaction to stimuli, slowness of movement, loss of appetite, increased finger-sucking, insomnia, psychomotor retardation and a depressed expression. He termed this condition 'anaclitic depression'. If the mothers returned within 5 months there was an immediate improvement and the babies subsequently recovered full. If the mother did not return the syndrome 'hospitalism' occurred. These infants failed to develop mentally and their mortality was high.

Bowlby (1960) in his studies on the mother-child relationship, confirmed Spitz's findings. Bowlby advanced the hypothesis that anaclitic depression was the result of the separation of the infant from its mother, and he further contended that the depression represented a true state of mourning in the child. He described an initial stage of protest consisting of anxious behaviour, followed by withdrawal and retardation (depression). Bowlby also hypothesized that the loss in childhood of a loved object significantly predisposed the individual to the later development of pathological mourning. Is this the condition known as endogenous depression?

Bowlby's work was based on studies observing infants and children separated from their families and placed in institutions. Bowlby (1965) claims that "when deprived of maternal care, a child's development is almost always retarded--physically, intellectually and socially--and that symptoms of physical and mental illness may appear". (p. 21). Bowlby attributed these changes to the fact that such children were deprived of a mother or individual mother-substitute. Bowlby also quoted evidence provided by retrospective studies which showed that older children with various emotional disturbances or with intellectual retardation were more likely to give a history of separation from a

mother or foster-mother in their infancy or early childhood. He also used follow-up studies investigating the mental health of children who suffered deprivation in their early years, comparing children placed in foster homes with children of similar heredity placed in institutions. Of his methodology Bowlby says, "What each individual piece of work lacks in thoroughness, scientific reliability, or precision is largely made good by the concordance of the whole. Nothing in scientific method carries more weight than this. Divergent voices are few". (p. 15). McConaghy (1979) describes this as a methodologically unacceptable assertion. Other criticism of Bowlby's methodology comes from Wootton (1962) who says that Bowlby's lighthearted dismissal of the influence of differential inherited factors is astonishingly naive. Yarrow (1961) says that although in Robertson and Bowlby's (1952) research on 45 children ranging in age from 4 months to 4 years, all but three are reported to have shown some reaction to separation from their mothers the intensity and duration of the reactions are not clearly specified. Less than half, twenty cases, are reported as showing 'acute fretting', a behaviour which is not well defined. The reported duration of the reaction varied from 1-17 days. There are no data on the number of children who showed prolonged reactions.

The recent study by McConaghy (1979) criticises Bowlby's work particularly in relationship to the lack of adequate control for a number of variables: heredity, amount of physical and social stimulation, separation from other family members than the mother, stresses on the child prior to or associated with the reason for separation, and the physical health of the child prior to and following separation. McIntyre (1979) endeavours to rebut McConaghy's arguments in an emotive and unscientific article which is probably motivated by her concern over the social consequences which may attend what she describes as the 'premature conclusion' that maternal deprivation is not harmful.

Some early research in the 1960s looked at the relationship between parental bereavement and various mental illnesses. Pitts, Meyer, Brooks & Winokur (1965) did not find any significant association between childhood bereavement and any diagnostic category in adult patients, but their control group consisted of medical inpatients who could hardly be considered an adequate control, as studies (Schwab et al, 1965, 1967; Moffic & Paykel, 1975) show that depressive symptoms are widely distributed among medical inpatients.

Forrest et al (1965) compared depressed patients with medically ill controls also, with respect to childhood bereavement. The only significant difference was that the depressives had a higher incidence of parental death before age 15, but Forrest et al stated that the higher incidence of childhood bereavement in their psychiatric patients was the result of a selection factor, in that they were drawn from a socially and medically handicapped stratum of Edinburgh's population.

In 1967 A. T. Beck in what has become the classic work on depression reviewed the then extant works which related childhood bereavement to adult depression. Beck found more than fifty papers had been published which linked parental deprivation to subsequent adult psychopathology. Twelve of these related orphanhood to adult depression, some of which we have already looked at. Beck concluded that even when these studies are controlled for such factors as socio-economic status, and the differential mortality rate (which can influence the incidence of death rate of parents), they show a relationship between orphanhood and adult depression. He found that about 30% of severely depressed adults have a childhood history of parental loss. Beck did not examine other forms of parental loss—divorce, separation, adoption, abandonment.

Beck refers to Brown's (1961) research which reported a significant relationship between parental loss in childhood and adult depression.

Brown found that 41% of 216 depressed patients had lost a parent through death before the age of 15; this incidence was found to be significantly greater than the incidence of orphanhood in the general population of England (12%) and in a comparison group of 267 medical students (19.7%), suggesting that there is some connection between parental bereavement and depression.

However, this study can be criticised on the grounds that only a very broad diagnosis of depressives was made. Brown defined depression as "the presence of an unpleasant effect, not transitory, and without schizophrenia or brain disease". Another factor to be considered is the discrepancy in the base rates of parental death in different demographic groups. Brown's study obviously did not differentiate between endogenous and reactive depressives and indeed his classification of depressives is suspect because of the vague diagnosis of depression. The implication is that parental bereavement may be related to psychiatric illness in general rather than depression in particular.

Beck's study considered these factors. His subjects were diagnosed by a psychiatrist according to the Standard Nomenclature of the American Psychiatric Association. The Beck Depression Inventory was also administered to each subject, and they were rated as high-depressed, medium-depressed and non-depressed. His diagnostic categories were neurotic depressive reaction, schizophrenic reaction, psychotic depressive reaction and physiological reaction. Beck found a significant difference between the number of highly depressed patients who had lost at least one parent before age 16 and the number of non-depressives who had lost at least one parent before age 16. Both males and females suffered the loss of a father appreciably more frequently than the loss of a mother. The greater frequency of paternal loss held for both sexes across all

levels of depression. Furthermore, when extreme groups were compared, loss of father was over-represented in the highly depressed group for both males and females. Overall incidence of orphanhood was significantly higher in the Negro than the white group and in the group aged 31-60 than in the group aged 16-30. Within each demographic group the incidence of orphanhood was consistently higher for the highly depressed than the non-depressed group. These differences were significant for the following groups: inpatients, negroes, females, and the younger age groups. The relationship between age, orphanhood and depression was not significant, nor were there significant differences in the incidence of orphanhood among the different diagnostic categories, once more indicating that orphanhood is not related to a specific diagnostic category. However, those who were most depressed, irrespective of diagnosis, had a higher incidence of orphanhood than those who were low-depressed. Females were significantly more likely to be high depressed than males. Beck found that 27% of highly depressed patients have lost a parent in childhood and as a result tend to see later loss, particularly interpersonal loss, as irreversible and shattering. He points out that the precise nature of the relationship between childhood loss and later depression cannot be determined without further research.

Wilson, Allton & Buffaloe (1967) found that when they compared depressives patients who had lost one or both parents before age 16 with depressive patients who had not lost a parent before age 16, the only significant difference on MMPI scales was on the schizophrenia scale--there was no significant difference on the depression scale indicating that parental loss was related to schizophrenia, not depression. However when Birtchnell (1978) compared early bereaved i.e. before age 10, patients with non-bereaved depressive patients, he found that there were significant differences on the hypochondriasis and paranoia scales.

Hypochondriasis was found to be more closely associated with early father death, but paranoia was associated equally with mother or father death. The nonbereaved patients' scores were not affected by early parent death. Results suggest that early father death may lead to hypochondriasis as well as depression, and that early death of either parent may lead to paranoia as well.

Hudgens, Morrison & Barchla (1967) found that when they compared forty manic-depressive patients, 34 of whom met their diagnostic criteria for depression, with forty controls who were non-psychiatric patients matched for sex, marital status, age, race and cost of hospital accommodation, there were no significant differences on 'loss' experiences, which included events such as death of a parent, death of a sibling, separation from parents for periods greater than 3 months as a child, but controls in this study were once more medical in-patients who, we have seen, have a higher incidence of depression than the general population (Schwab, 1966, 1967; Moffic & Paykel, 1975).

Mumro (1966a) found no difference between depressives and controls in the incidence of death of a parent, nor through other parental deprivation i.e. absence of either parent. He did find significant differences when he examined the incidence of a disturbed relationship with a parent during childhood (i.e. up to the age of 16 years). The term 'disturbed relationship' was used where an individual reported that, during part of childhood at least, relations with a parent-figure were consistently strained or unhappy. Depressives had significantly more often lost a mother through death before they were 26, but the age at death of father was not significant. Depressives had significantly more often lost a mother from cancer. Once more the control group was a group of general hospital patients -- in this case outpatients.

Munro (1966b) also looked at some familial and social factors in depressive illness. Size of the family and ordinal position in the family showed no significant difference between depressives and controls, the subjects in this research being the same as in the above study, i.e. the controls were general hospital outpatients. However, when the relative position of subjects is considered there was a significant difference between moderate depressives and controls. The moderate depressives tended to be found more in the middle or penultimate positions, and less in the last position, than controls. There was no significant difference between the father's age at the time of the child's birth nor the mother's age. However, there was a highly significant difference between depressives and controls on the presence of a family history of severe mental illness. Severe mental illness was defined as a mental condition for which medical intervention had been required. Relatives accepted for inclusion were grandparents, parents, sibs, children, aunts, uncles, nephews, nieces, and cousins, but in most cases the positive reports were on grandparents, parents, or siblings. Unfortunately, information was obtained from the patients, so it was impossible to ascertain the type of illness from which the relative had suffered, although Munro presumes it was most frequently affective disorder, although he gives no reason for this presumption. There is no indication how reliable the information from the subjects was.

Although Rutter (1966) found that over twice as many children attending a psychiatric clinic had suffered parental bereavement compared with the incidence in the general population this was not linked to any specific psychiatric disorder.

Dennehy (1966) found that male and female depressives, male schizophrenics, male alcoholics, and female drug addicts showed a higher incidence of loss of father before age 16 than the general

population. Similarly, the following groups of patients showed a greater loss of mother; male depressives, male schizophrenics, male and female alcoholics, and female drug addicts. Gregory (1966) on the other hand found little difference between his psychologically disturbed sample and a control group which was a matched population sample.

It is difficult to reconcile these differing findings, although it is possible that the subject groups differed in some unknown way. There were differences in the way the diagnostic groupings were decided. Dennehy based hers on the diagnostic decision of the senior consultant in the case, and interviewed each patient to get the history of parental loss. By contrast, Gregory's sample was based on the diagnoses of first-year residents.

Gay and Tonge (1967) compared patients in five diagnostic categories: endogenous depression, reactive depression, neurosis, schizophrenia and personality disorder. These were divided into two groups according to whether there was a history of separation from a parent for a period of at least 6 months before the age of 15. There was a significantly higher rate of parental loss among reactive depressives than among endogenous depressives. Reactive depressives also showed a significantly higher incidence of loss of parent through bereavement than other diagnostic categories. They also show a significantly higher loss of same sex parent than the other sexed parent. A history of parental loss is found more frequently in patients who have attempted suicide, though no definition of 'suicide attempt' was made (Cf Hill, 1969, and Greer, 1969). Hill (1969) found that those depressed patients who attempted suicide showed a higher rate of maternal and particularly paternal loss through death than those depressed patients who did not attempt suicide. Greer found that neurotics who attempted suicide had a higher incidence of parental loss before age 15, and in

particular before age 5, than neurotics who did not attempt suicide. However, when Gay & Tonge (1967) looked at reactively depressed patients there was no significant difference between the numbers of those who have attempted suicide and those who have not, nor do the ages at which their parents were lost have any significance.

In their conclusion Gay & Tonge (1967) say:

At first sight, Munro's (1966a) finding that severe endogenous depressions were associated with a previous history of parental loss appear to be discrepant with the present results, but on reflection it seems likely that the endogenous depressions reported here do not correspond with Munro's group of severe endogenous depressions which are more likely to be admitted to a mental hospital than the psychiatric unit of a teaching hospital where the present investigation was carried out.

This suggests that parental bereavement may be related to severe, rather than mild, endogenous depression.

A variety of studies (Brown, 1961; Munro, 1966a; Hill & Price, 1967; Beck, 1967; Hill, 1969) stressed the consistently higher rate of paternal loss in the age interval 10-14 years for depressives. According to Anthony (1971) mental age 10 is the age when children are first correctly able to comprehend the event, death, with its logical and biological essentials.

Heinicke (1973) looked at the literature which had examined four main types of parental deprivation:

1. The absence of any sustained parent-child relationship i.e. the child was raised in institutions or foster-care situations.
2. Separation from parent for 6 months or more owing to a variety of causes, including divorce of the parents.
3. Deprivation due to inadequate parenting.

4. Death of one or both parents.

Heinicke summarized the results of the research, much of which has already been referred to. He points out that findings are not unanimous but reveal (1) that the greater incidence of adult psychiatric disturbance in general is associated with the childhood experience of parental death or extensive separation from the parent owing to divorce or marital separation; (2) that a greater incidence of depression is associated with the childhood experience of parental death; (3) that the patients who suffer from a severe, as opposed to a mild, form of depression have frequently experienced parental death in childhood or an inadequate parent-child relationship, or both; (4) that the patients who attempt suicide have more frequently experienced parental death in childhood; and (5) that the incidence of parental death in the in the 0-5 and 10-14 age intervals is higher for depressed patients. This is particularly true for paternal loss through death in the 10-14 age interval.

From the research of Dennehy (1966), Brown (1961, 1967), Munro (1966a), Hill & Price (1967), Hill (1969), Greer (1964), Beck (1967), Birtchnell (1970) he concludes that bereavement in childhood is more likely to predispose to depression if it occurs in the period from birth to 5 years and from 10-15 years.

Some later studies in the area of parental bereavement are those of Jacobson (1975), Wulf (1976), Brown, Harris & Copeland (1977) and Birtchnell (1978).

Wulf (1976) endeavoured to explore the relationship between death of a parent in childhood and adult psychopathological tendencies, but found no significant differences between groups. Wulf's subjects were undergraduate psychology students and their levels of psychopathology were measured by objective tests of anxiety, depression, locus of

control, and interpersonal trust. One would assume that it would be unlikely for students, particularly at university level, to be exhibiting a marked degree of psychopathology as this would surely have interfered with their studies to a notable extent. Nor, without knowing exactly which tests were given could one assess their validity.

Brown et al (1977) found that 66% of psychotic depressive patients had a past loss through death, compared with 37% of neurotic depressives. If the psychotic depressives are divided into 'most' and 'least' halves the 'most' had an incidence of 77% past loss and the 'least' an incidence of 55% loss. Only loss of a mother before age 11 was significantly related to depression. Past loss of a father was not related to depression. A particularly interesting feature is that loss by death appeared to be related to psychotic depression and other types of loss to neurotic depression. Brown et al did not use a normal comparison group, although they did compare their depressives with the general population. However, bearing in mind demographic differences they might have found different results with a normal comparison group. Brown et al's study dealt only with women as did that of Jacobson, Fasman & DiMascio (1975) which compared depressed in and outpatients with normals. They reported no significant difference in loss of parent by bereavement, but a significant difference in incidence of separation of parents between depressives and normals. This research is interesting when compared with Brown's research, in that using a 'normal' comparison group no difference was found on the factor 'bereavement'.

A study by Roy (1978) found that predisposing factors to depression in working class women were (1) lack of a confiding marital relationship, (2) three or more children under fourteen at home, (3) lack of employment, (4) and most relevant for this study confirmed

Brown et al's (1977) finding that the loss of a mother before 11 is a predisposing factor. This did not hold true for middle class women.

Birtchnell (1978) found that the incidence of mother death before the subject was aged 16 is significantly higher in depressed women than in the general population.

The importance of the occurrence of loss at age 10-15 may be linked to the work of Anthony (1971) and Koocher (1974), whose research indicates that children's concepts of death develop slowly and it is likely that young children perceive losses from any cause in similar ways until the age of 4-5 years. Until about 10 years they may think that death is reversible.

Anthony (1971) investigated children's concepts of death by analysing their responses in three ways: (1) systematic records made by parents, (2) insertion of the word 'dead' into the Terman-Merrill form of the Binet IQ test, (3) a story completion test. Responses were divided into five categories. These indicate that children under 5 are ignorant of death and show little concern or interest in situations involving death. Between 5 and 8 some show interest and have a limited concept of death which may be erroneous, and others between 5 and 10 understand the term 'death' and relate it primarily to humans only. From 8 to 12 there is a more general or a specific understanding of death with 10 being the median age at which this occurs and 9 years 10 months being the mean age at which it occurs. Levels of understanding of the concept is related to mental age with educationally sub-normal going through the stages at later chronological ages.

Wolff (1969) shows that children who lose a parent while in the stage of cognitive development which attributes a causal relationship to events related in time, are more likely to fear retaliation from a parent towards whom they may have entertained ambivalent feelings and

who, they believe can return from the dead. Religious beliefs may reinforce these misconceptions.

Heinicke refers to Wolfenstein's (1966, 1969) studies of children who lost a parent by death in the recent past. Information was gathered by treating a group of such children and Wolfenstein concluded that children do not, for the most part, successfully mourn the loss, but rather cling to the idea that the parent will return. Although the concept of death is accepted the loss of the parent is actually denied. In the hope that the outcome will be different this time the child repeats the circumstances that are similar to those that surrounded the loss. Typically, the absent parent is idealised and rage is often directed towards the remaining parent. Wolfenstein (1969) pointed out that children who exhibit this reaction must cling to the absent parent, not only because of their longing to have their needs satisfied, but also because their self-esteem is still so tied up with the presence of the loving parent. Specifically, the child feels shame in his status of being without either a father or a mother. Without indicating that these immediate reactions to death necessarily result in later depression, it is not too difficult to link experiences of intense longing for infantile satisfaction, ambivalence, and rage toward the disappointing person, and actual depressed feelings and lowered self-esteem to the components of depression that are seen in adults. It would certainly seem that, in the sense of arrest, such a bereavement experience could serve as a predisposition to later maladaptation.

Whether this reaction and predisposition would follow the loss of a parent through separation or divorce is yet to be investigated. Wolfenstein's (1969) study was based on information from, and behavioural observation of, individual child patients and is reported in a series of case studies. It can be criticised on the grounds that there was no control group nor were subjects randomly selected.

One of the most recent relevant studies is that of Roy (1980). Roy accepted from the work of Brown et al (1977) and Roy (1978) that parental loss before 17 years of age raises the chances of developing later depression. He examined both unipolar (i.e. those who have only depressive episodes) and bi-polar (i.e. those who have both manic and depressive episodes) manic-depressives to see whether there were differences in the incidence of parental loss between those whose illness had had its onset before they were thirty and those who had had later onset of illness. Significant findings were that males with an onset of illness after thirty had a higher incidence of paternal death before age 11. Incidence of parental bereavement between birth and seventeen was significantly higher than incidence of separation from a parent among all males. Five other groups had significantly more death than separation, all between 11 and 17: males with onset after 30 years with loss of mother; males, females, bipolar cases with onset before 30 and loss of father, and unipolar cases with onset after 30 and loss of father. Roy accounts for a high death rate in his subjects by pointing out that:

These patients' parents lived in the first half of the century when treatment for affective illness was not readily available or effective and lithium prophylaxis was undiscovered. The excess of parental death may be accounted for by affective disorder and suicide in the parents, poor medical and psychiatric care, and death in war.

When considering the effect of parental bereavement we must not overlook the incidence of parental bereavement in the general population. The parental death rate (particularly of mothers) has declined considerably this century, but the rate of orphanhood for children under 16 in Britain (where most of these studies have been carried out)

is still about 1.6%, four out of five deceased parents being fathers. (Birtchnell, 1972). However, by the time these children have all attained the age of 16 the incidence will be much higher. Munro (1965) found that in his Edinburgh sample 19.5% of a normal sample had lost one parent by death by their 16th birthday, and 46.7% have been separated from a parent for at least 3 months during childhood, which seems to indicate that the divergent results reported in previous studies, when looking at the incidence of parental deprivation in depressives and nondepressives, may be partly accounted for by the age of the subjects and possibly the geographical areas from which they come.

While no available studies appear to link early institutional upbringing to adult depression the temporary placement of children in residential nurseries has been investigated and Heinicke & Westheimer (1965) have summarized the previous research. They also studied children aged between 1 and 3 who had been placed in residential nurseries. Although there are differences, similarities have been found between children placed in nurseries and those who have lost a parent through death. In both situations the child seems to be unable to give up the lost object. If he stays more than 2 weeks he shows the same feelings as the bereaved child. Intense anger is expressed towards the nurse who takes care of the child, but not towards the visiting parent. Intense greed and disruption of development such as sphincter control and speech indicate the return to the previous period of development. Excessive eating and extreme angry possessiveness towards material goods reflect the diminished sense of well-being and the desperate efforts to restore this well-being through greed. Heinicke (1973a) relates this type of disturbance to the child's sense of well-being through great loss to the type of downness and worthlessness that is associated with the depressive mood in adults.

Heinicke's studies (1973a, 1973b) were based on intensive observation of a group of nursery children and their interaction with their parents.

Some research specifically considered the reactions of infants up to 16 months to the temporary absence of the mother. Jacobson (1946) talked about the disappointment of the infant in the mother as a source of gratification, a condition that may persist as a disillusionment in life, along with a general physical fatigue, exhaustion, emotional emptiness, a lack of initiative, and no conspicuous guilt (indicating that the disillusionment first occurred before the superego began to form). Jacobson called this a picture of bleak depression, particularly when it reappears later in life, although she uses the term 'depression' in childhood to describe a negative or withdrawal reaction. This tends to prejudge the issue of whether the early and late sets of reaction are in continuity (Cole, Schatzerg & Frazier, 1978).

Erikson (1968) saw infant separation trauma as the first crisis in the intra-psychic development and the beginning of a basic identity and a sense of trust in others.

Schmale (1973) sees exogenous depression as the syndrome in which a known recent event has triggered the reaction. Of great importance to the clinical syndrome of endogenous depression is the symbolic significance of the currently experienced loss of gratification. The current loss must threaten to reawaken the suppressed and unresolved infantile separation trauma and its associated feelings of helplessness. To avoid such a happening, there is the formation of a defensive compromise, a symptom that then protects the individual from re-experiencing the separation trauma. The symptom, as with the neurotic symptoms defined by Freud (1940), involves a disavowal of the current loss of gratification and its associated infantile links and in its place are

fantasied two contrary and seemingly independent ideas: (1) objects are available for gratification, (2) objects are unwilling (rather than unable) to provide gratification. The first idea represents a fantasied distortion of the repressed wish that the mother be available for gratification. The second idea is a distortion of the original ideation that it was not because she was unable to gratify but rather it was unwillingness or a disinterest in gratifying that led to being ungratified. Thus we may say that the child sees the parent as rejecting and returns in later adult depression to the condition of blaming the parent for its rejection of the child. This anger towards the parent and 'need-to-prove-neglect' is in endogenous depression turned inward onto the self with the expression of a fear of not measuring up, which leads to expression of shame, rather than guilt, for being so inadequate. Schmale (1973) bases his findings on experimental evidence in animals, particularly the studies of Harlow (1961), Kaufman and Rosenblum (1969), Richter (1957), Ader (1970) and Pavlov (1928) which show the similar reaction of a variety of animals (rhesus monkeys, Norwegian rats, and dogs) to a variety of stressful situations, particularly separation from mothers, which induced depress-type behaviour in the animals. He also examined studies which systematically observed the behaviour of infants when separated from their parents, e.g. Ainsworth (1962) and Heinicke & Westheimer (1965). The studies related to infants are not as empirically sound as those related to animals because of the difficulties in manipulating the experimental situation, and the lack of control groups.

Kaufman & Rosenblum (1969) found in their work with rhesus and pigtail monkeys that separation of the young from their mothers produced depressive-type symptoms. However, amongst bonnet monkeys, where the infants are handled by all, the infant is taken over by

other females if the mother is removed, and the infant shows no drastic effects of separation, which thus appear to depend on differences in social organization. The studies indicate that depressive type symptoms can be induced in young animals as a result of separation, not just from their mothers, but from other members of the same species. One cannot be sure how generalizable these studies are to human beings because of genetic differences.

Few studies have examined the link between a separation of more than 6 months from human parents and later depression. Capland & Douglas (1969) did find that depressed patients as opposed to non-depressed controls did experience such separation more frequently. Many children who for various reasons had lost one parent and then been placed in a foster home instead of being left with the remaining parents became depressed in later childhood.

Brill & Liston (1966) found that parental loss owing to divorce or separation occurred with much greater frequency in a large psychiatric inpatient and outpatient population covering a great variety of diagnostic categories, than in two control groups.

Research by Bowlby (1951) and Gregory (1958) show the high incidence of parental deprivation among delinquents and psychopaths.

Levi (1966) tested suicidal patients for interaction between separation in early childhood (0 to 7 years) and recent separations and found it significant: the suicidal patients tend to show a combination of both early childhood separation and separation prior to the suicide attempt.

Frommer & O'Shea (1973) examined the question of the effect of the separation from a parent on the emotional attachment and family building of women in later life. The factors considered were management problems with their infant during the first year of its life and

marital problems. The significant childhood experiences were found to be: the separation of parents at any age, a poor relationship with father or father substitute and/or parent quarrelling, being separated from a parent before age 11. There was a highly significant increase in depression in the 'problems' group although it is not evident whether this was a cause or an effect of the problems. Frommer & O'Shea conclude that although there has been a great deal of investigation into the effects of separation from parents on children, it seems that the quality of the home life from which the child is separated is at least as important as the circumstances of the separation. Depressive symptoms are clearly an important factor in the troubles of these women. One of the interesting features of this research is that many of the control group, who had all denied childhood separation, were in fact found to have been separated from their parents. This problem occurs frequently in research which relies on self-report. Schless & Mendels (1978) found that when assessing life stressors more reliable information could be obtained by interviewing subjects and significant others in their lives and pooling the information received.

Crook (1979) compared adult depressives with normals. He found that there was an increased incidence of paternal desertion during childhood among female depressives than among normals but that this did not apply to males. Results suggested that patients had experienced significantly more parental rejection. Maternal rejection was more closely related to depression among females than among males. Over the whole sample paternal rejection was not found to be associated with depression in either males or females, but when race was considered it was found to be related to depression in black males.

There are few studies which examine direct parental rejection. One by Pemberton & Benady (1973) looked at the effects on children of

conscious parental rejection, although they point out that definitions of rejection vary. In their research Pemberton & Benady defined rejected children as those children whose parents had excluded them from that family and who had taken active steps to have them placed elsewhere; subsequently most of the parents had severed all contact with the child. The subjects were eight boys and four girls, and the controls were the next patients of the same age and sex referred to the Child Guidance clinic at which the subjects were patients. None of the subjects was the youngest in the family (cf. Munro, 1966b); the mode in both subjects and controls was second in the family. There was no statistical difference in intelligence between the two groups. There were significant differences in marital disharmony between the parents of both groups and also in physical assaults on the children. There were significant differences between the two groups on all their symptoms except day-wetting and enuresis. These symptoms were encopresis, stealing, lying, aggression, negative behaviour and rejecting attitude. Although the two groups were matched for age, sex, socio-economic class and religion it must be remembered that the controls were disturbed children and by no means a randomly selected control group. The subject sample was also very small.

In Pemberton & Benady's research the rejected child seems to have been made the family scapegoat. They explain that:

The origins of the scapegoating process were never fully elucidated in any family because of the parents' dislike of discussing their problems and their eagerness to focus attention on one child. The reasons for choosing one particular child were obscure also. However, the child's behaviour in every case served to strengthen the process of rejection.... The process of scapegoating appeared to produce a fragile kind of stability

in the rest of the family. Even when the child was removed, the families in all but one case remained together and offered some care to the other children, without the process of scapegoating extending to them.... The consciously rejected children were subsequently seen to be severely damaged by their inability to establish close relationships with other significant persons in their life such as their peers and teacher.... In all honesty, it is sometimes extremely difficult to find any positive feeling from the family towards the child, and inescapable separation of the child from its family comes about. Whilst this separation may be beneficial in the short term, the difficulty these children have in establishing interpersonal relationships gives rise in their teens to a sense of emptiness and to acting-out behaviour which even whilst understood is extremely difficult to cope with.

Boucebci & Yaker (1976) reported on a long term study of 24 children abandoned at birth and brought up in unsuitable institutions. Preliminary results cover a period of 2 years. The serious initial lack of mother care, the characteristics of the institutional environment, and the consequences of these deprivations are described. There has been a diversity of developments and serious mental and emotional disturbances are present in many of the children.

A study by Poznanski, Krahenbul & Zrull (1976) looked at 10 children who had been labelled as affectively depressed at initial evaluation and re-evaluated them after $6\frac{1}{2}$ years when they had reached adolescence or young adulthood. None was free from psychopathology; five of them appeared to be clinically depressed. They tended to resemble adult depressives. Neither broken home nor parental loss was found to be predictive of depression. Continuing into adulthood parental deprivation and rejection seemed correlated to the outcome of continuing

depression. Peer relationships suffered and dependency was more prominent in all as they grew older, resembling the adult depressive. Overt aggression was considerably reduced and performance and productivity were uniformly low at follow-up.

Recent work in this area has tended to look at child-rearing patterns rather than physical separation as an important factor in later depression. In an earlier study Gibson (1958) had looked at child-rearing patterns and found that there were significant differences between manic-depressives and schizophrenics on several variables: (1) efforts to raise prestige of family, (2) family aspirations for patient, (3) patient subjected to envy, (4) patient under-selling self, (5) envy in family, (6) conventional values impressed on child, (7) concern about social approval. There were no significant differences on authority in the home or the role of the parents. Gibson himself makes the point that his control group was schizophrenics, and that he is unaware how his findings would compare with those from a normal group. However, Sloan (1978) investigated this. He compared hospitalized depressives, hospitalized schizophrenics, and normals, using Schaefer's Children's Reports of Parental Behaviour Inventory, Beck's Depression Inventory and a mental health questionnaire. He found that compared to normals both depressives and schizophrenics perceived their fathers to have been less accepting and to have relied more on indirect control. Both depressives and schizophrenics viewed their mothers as relying less on direct methods of control. Only the female depressives reported their mothers as being less accepting than normals or schizophrenics. This suggests that while child-rearing practices may be related to subsequent mental illness, they are not specifically related to depression, but one must remember that Sloan did not differentiate between endogenous and reactive depressives.

Arieti (1979) describes the typical home background of the depressive and his dependence on a 'dominant other'.

Parker (1979a, 1979b) found that subjects showed a higher incidence of depression and anxiety when the mother exhibited low care, high overprotection characteristics ('affectionless control'). Where the father exhibited high care, high overprotection ('affectionate constraint') and high care, low overprotection ('optimal bonding') the incidence of depression and anxiety were less.

If we take a selection of the studies which have been done in this area and examine the types of depressives who have been studied and look at the control groups chosen it becomes apparent that some research design was not as effective as it might have been (Table 1).

Table 1 indicates that there is little uniformity in the criteria taken for research, including experimental and control groups, in this area and consequently findings cannot be generalized; but it does indicate the need for more clarification in this area.

Heinicke (in Scott & Senay, 1973) concludes that:

The further study of the effect of parental deprivation on later development, including the development of depression, is warranted. One direction might be the further refinement of the retrospective studies. Much progress has been made, especially in the clarification of what constitutes an appropriate control group (see Dennehy, 1966; Gregory, 1966a).

Less progress has been made in the specification of the nature of the depressed cases being studied. There is clearly a distinction, even in the present literature between the patient who suffers from a depressed mood (Brown, 1961; Caplan & Douglas, 1969) and another patient who has been brought into the category of affective disorders with a diagnosis of manic-depressive.

Table 1
Types of Depressive Subjects and Controls

Research	Type of Depressive	Controls
Gibson (1958)	Manic-depressive (unspecified)	Schizophrenics
Munro (1966a,b)	Severe and moderate depressives (unspecified)	General hospital out- patients
Gaye & Tonge (1967)	Endogenous depressives Reactive depressives	Non-depressive neurotics, schizophrenics and personality disorders
Beck (1967)	Highly depressed and moderately depressed patients	Non-depressed patients
Paykel (1969)	Depressives (undifferentiated)	Randomly selected normals
Jacobson et al (1975)	Depressives (including both neurotic and psychotic)	Neurotic depressives and normals
Brown et al (1977)	Depressives (undifferentiated)	Neurotic outpatients including depressives and normals
Crook (1977)	Depressives (undifferentiated)	Normals
Sloan (1978)	Depressives (undifferentiated)	Schizophrenics and normals
Roy (1978)	Neurotic depressives	Matched medical in- patients with no history of depression

I am aware of the vast differences in definition, as well as the vast differences in the theoretical formations of the concept, of depression. By carefully defining and measuring the depth of depression, Beck (1967) achieved a clarity of the relationship between early bereavement and later depression that is absent in many other studies. Clearly this work of greater clarification should continue.

It is with the intention of adding to this clarification that the present study is undertaken. It is designed to compare endogenous depressives with reactive depressives and other groups to see whether there are differences between them in terms of parental deprivation, as outline in Hypotheses 1-4, and in incidence of suicide attempts (Hypothesis 5) (see p. 8-9).

Method

Subjects

The eighty subjects for this research consisted of four groups of twenty subjects each. Three groups consisted of inpatients of Lake Alice Hospital, while the fourth group contained 'normal' subjects.

Lake Alice Hospital is situated 25 miles north-west of Palmerston North. Its catchment area is a large one, including most of the southern half of the North Island of New Zealand. Boundaries for this catchment area stretch from New Plymouth in the west to Lake Taupo in the north, to Napier in the east, with the Waikanae River forming the southern boundary. During 1979 there were 443 admissions to Lake Alice Hospital.

Diagnoses for Groups 1, 2 and 3 were based on World Health Organization criteria, Mental Health Handbook (1971) (see below). No patients were included if doubt existed concerning the accuracy of their diagnosis. If there were discrepancies between the diagnosis of the psychiatrist and the psychologist the subject was discarded. Sometimes another psychologist was asked to assess the patient to confirm the diagnosis.

Group 1 - Endogenous Depressives (Experimental Group)

This group consisted of twenty patients diagnosed as suffering from manic-depressive psychosis, depressed type, i.e. endogenous depression, who were consecutively admitted to the hospital. The Mental Health Handbook (1971) defines manic-depressive psychosis, depressed type, thus:

Patients exhibiting marked recurring depression of mood, together with mental and motor retardation and inhibition, sometimes accompanied by feelings of uneasiness and apprehension with or

without history of a manic episode, are included in the subcategory. So-called 'endogenous depression' is included here. Only uni-polar depressives, i.e. those patients who had experienced only depressive and no manic episodes, were selected.

Group 2 - Reactive Depressives (Comparison Group)

This consisted of twenty patients diagnosed as suffering from depressive neurosis, i.e. reactive depression, consecutively admitted to the hospital. The Mental Health Handbook defines depressive neurosis thus:

The term depressive neurosis is synonymous with neurotic depressive reaction and may be differentiated from the corresponding psychotic reaction (1) by life history of the patient with special reference to mood swings (suggestive of psychotic reaction), to the personality structure (neurotic or cyclothymic) and to precipitating environmental factors and (2) absence of such severe symptoms as delusions, somatic hallucinations, severe guilt feelings, severe psychomotor retardation, profound retardation of thought and stupor.

Group 3 - Schizophrenics (Comparison Group)

This consisted of twenty patients diagnosed as schizophrenic, consecutively admitted to the hospital. It did not include patients suffering from schizo-affective illness because these patients could have depressive symptoms. The Mental Health Handbook describes schizophrenia thus:

Reactions of psychotic depth, not of a demonstrable physical aetiology, which are characterised by a fundamental disturbance in reality relationships and concept formations, with affective, behavioural and intellectual disturbances in varying degrees and mixtures.

These disturbances are marked by a strong tendency to retreat from reality by incongruity of affect, disturbance of the stream of thought, regressive behaviour, and in some, by a tendency to deterioration. Delusions and hallucinations common.

This group of psychoses is subdivided into types of schizophrenia according to the dominant symptomatology. The distinctions are only relative and transitions from one type to another are common.

No patient was used twice in the research even if readmitted during the period of the study.

Refusals. Only one patient diagnosed as 'schizophrenic' refused to participate in the research. (see Appendix B). No depressives refused.

Exclusions. Only two subjects were excluded because of communication problems--both were schizophrenics. One was too withdrawn to communicate and the other (male) had vocal problems which made communication difficult. One neurotic depressive was excluded because she was too distraught (because of her condition) to be interviewed.

Three female patients diagnosed by the psychiatrist as schizophrenic were excluded because two psychologists found the diagnoses doubtful.

Group 4 - Normal Subjects (Control Group)

This consisted of twenty 'normal' subjects who were selected in the following manner: Using a table of random numbers, telephone numbers were selected from the Palmerston North-Feilding free calling area which stretches as far as and includes Apiti in the north, Sanson in the west, Tokomaru in the south, and is bounded by the Tararua and Ruahine Ranges in the east. These numbers were contacted and the selected respondent (the person in the household aged 12 or over who had the next birthday) was asked if he/she would be prepared to be interviewed. The criterion for inclusion in this group was that the subject had never had inpatient

or outpatient treatment by a psychiatrist. If there was no reply the call was repeated until the household was contacted. All selected households were eventually contacted.

Twelve was selected as the minimum age because it was the age of the youngest subject in the inpatient sample.

Refusals. There was a 25% refusal rate on the initial phone call, but no subjects refused to participate at a later stage.

Exclusion. One subject originally selected was excluded on the grounds that she had had psychiatric outpatient treatment. Another subject was selected to replace her.

Comment. This method of selection of normal subjects does preclude households without telephones from being included, and may therefore restrict those on lower incomes from being selected. On the other hand many social welfare beneficiaries on low incomes in New Zealand have their telephone rentals subsidised. Eighty-five point nine percent of households in New Zealand have telephones (New Zealand Yearbook, 1977).

Replacement

In all cases of refusal or exclusion the subject was replaced by another subject.

Demographic Differences Among the Subject Groups

When tested by χ^2 significant differences were found between the groups on some demographic features. These are shown in Table 2.

Endogenous depressives were compared with each of the other groups on age variable with the following results, using a t-test.

Endogenous depressives and reactive depressives $t = 8.16$ df 38 $p < .001$

Endogenous depressives and schizophrenics $t = 4.612$ df 38 $p < .001$

Endogenous depressives and normals $t = 4.282$ df 38 $p < .001$

Endogenous depressives are significantly older than each of the other groups.

Table 2
Demographic Features

Variable	Endogenous	Reactive	Schizo- phrenic	Normal	Significance of Difference Among Groups
Ever married	17	17	9	14	
Never married	3	2*	11	4*	.01
Living in a marital relationship	14	14	5	13	
Not living in a marital relationship	6	5*	15	5*	.01
Female	14	12	14	11	
Male	6	8	6	9	n.s.
Socio-economic level 1-3	6	9	10	8	
Socio-economic level 4-5	14	11	10	12	n.s.
No School Certificate	19	13	18	11	
School Certificate or higher	1	4*	2	7*	.05
Roman Catholic	2	7	7	2	
Protestant	17	9	13	15	
No Religion	1	4	0	3	.05
Mean age	50.45	38.55	36.1	41.0	.05

*Subjects too young to marry or sit School Certificate were not included on these variables.

Procedure

All subjects were personally interviewed by the researcher. They were told that they would be asked some questions about their childhood and that at the end of the interview the purpose of the interview would be explained and any questions they wished to ask would be answered and any comments appreciated. The basis for the interview was a questionnaire which was filled in by the researcher during the interview from information supplied by the subjects. (see Appendix A)

Because information supplied by subjects can be suspect (see Schless et al, 1978) the files of all subjects in Groups 1, 2 and 3 were consulted to check the accuracy of the factual material where possible. The only inaccuracies appeared to be related to the question, "Have you attempted suicide?" (see Discussion). In the case of Group 4, the 'normal' subjects, there was no way available to the researcher of checking the accuracy of the self-report.

At the conclusion of the interview the purpose of the research was explained. The normal sample were told at this stage that the researcher was a psychologist at Lake Alice Hospital, of which the other groups had been aware.

Instrument

The Childhood Deprivation Questionnaire can be found in Appendix A. It was designed by the investigator to provide a standardized set of data for each subject. The literature dealing with research in this area indicates that some form of questionnaire and an interview were used to obtain the required information, although the only somewhat similar questionnaire is that of Jacobson et al (1975), although Paykel et al (1969) and Munro (1966) have similar check lists. The questionnaire contained such demographic information as age, sex, marital status, level of education, socio-economic class (based on Elley &

Irving's Revised Socio-economic Index for New Zealand, 1976), number in family and position in family, religion, whether or not practising religion, and occupation. The questionnaire also examined the age at which parents had died or left the home, separation from parents, and institutionalization of the subject (which included such institutions as hospitals, borstals, Social Welfare homes, health camps and boarding schools. Subjects were also asked if they had felt as children (1) that they were not wanted, (2) that their mothers did not love them, (3) that their fathers did not love them; and whether they felt now (1) that they had not been wanted as children, (2) that their mothers did not love them when they were children, (3) that their fathers did not love them when they were children. They were also asked whether they had ever had suicidal thoughts or had attempted suicide.

Validity and Reliability

A full statistical analysis of validity of reliability of the above questionnaire was not made. The information obtained was based on self-report from the subjects. In the case of the inpatient subjects an attempt was made to verify the factual information given, from subject files, but this was not always available. Demographic data was verifiable from hospital records. It was not possible to verify information given by the normal subjects, although there was nothing to suggest that any subject deliberately deceived the interviewer.

Statistical Method

The obtained data was categorized and the data for each group compared. Where frequencies of a characteristic were being compared the chi-square statistic was used. When means were compared a one-way analysis of variance was used, and on the variable "Age of Subject"

the experimental group was compared with each of the other groups using a t-test for two independent samples. This was done because of the comparatively large numbers.

Discussion of Method

A comparatively lengthy period of 12 months was required to accumulate the subjects in Groups 1, 2 and 3 for this research. Although Lake Alice Hospital averages 8.5 admissions each week only a small percentage of these are depressives (approximately 13.5%). Although the incidence of reactive depressives to endogenous depressives is approximately 4:1, many reactive depressives are treated by GPs or as outpatients at the Palmerston North Psychiatric Unit and therefore only a small proportion reach Lake Alice Hospital. Consequently it took approximately the same period to acquire both groups of depressive subjects.

The normal sample which was compiled in the manner described in the method section responded well with a refusal rate of only 25%.

All of the subjects were willing to answer the questions, although some of them appeared to experience some degree of discomfort when saying that they felt unwanted or that their parents did not love them.

When after the interview the hypothesis underlying the research was explained to the subjects neither the reactive depressives nor the schizophrenics showed any interest in discussing this. However both the endogenous depressives and the normals expressed interest. Several endogenous depressives said that they agreed with the hypothesis that there was a relationship between parental deprivation and depression and discussed it in the light of their personal experiences.

The response of the normals was in all cases one of interest. In several cases they asked a number of questions about mental illness and asked the researcher if she had the time to continue talking about

this and their own experiences. This is elaborated on in Appendix B (A Normal Sample?).

During the interviews it became apparent that there were some other areas which might repay further investigation--one of these being the loss of a sibling.

The normal sample were told that they would be contacted again with the results of the research and this will be done on the completion of the research.

The sample was rather small for the examination of some variables but it is apparent that mental hospital populations in New Zealand may be too small to permit adequately sized samples for examining such variables as parental bereavement.

Some significant demographic differences are apparent among the subject groups as shown in Table 2.

Munro (1966b) appears to have made the only study which considers demographic features in relation to depressives. Munro, unfortunately, does not divide depressives into endogenous and reactive depressives but, like Beck (1967), considers them rather as severe or moderate depressives. While it would be tempting to equate these two categories with endogenous and reactive depressives this is not an assumption that can be made and therefore findings are not directly comparable. Other studies have, however, looked at certain demographic features of their samples incidentally.

One variable which was not considered in the present research was race, but as a point of interest only, there were five Maoris in the sample--two endogenous depressives, one reactive depressive and two schizophrenics. None of the normal sample were Maoris. All other subjects were European. At 6.5% of the total sample the incidence is slightly less than in the general population (8%) (New Zealand Yearbook, 1977).

There was no difference between normals and depressives in the number of those who had married or who were now living in a marital relationship, but schizophrenics were significantly less likely to have married (see Table 2) or to be living in a marital relationship, although the crucial factor seems to be the original failure to marry rather than subsequent break-up of marriage as there is no significant difference in the incidence of break-up of marriages which have already occurred. The reasons why schizophrenics are less likely to marry than others is not clear. Obviously a schizophrenic is psychiatrically disturbed but a depressed manic-depressive is also disturbed. One explanation may lie in the age at onset of illness. Although the present study does not examine age at onset of illness, the endogenous depressives were significantly older than the other groups, of whom the schizophrenics had the lowest mean age (36.1 years) compared to the endogenous depressives' mean age of 50.45 years. This raises the possibility that schizophrenia may develop at such a young age as to affect interpersonal relationships to such an extent that the subject does not marry. Results here differ from those of Munro (1966b) who found that his depressives were significantly more likely to be married than his control group but the control group was not a randomly selected group, but hospital outpatients. Perhaps married people tend to get sick more often than singles or possibly can be treated as outpatients when single people lack the support at home and have to be cared for as inpatients. In the present study when endogenous and reactive depressives were combined the incidence of marriage is higher than Munro's (87.2%, compared to 75.8%). Perris (1969) found that the marriage rate for depressives does not differ from that of the general population.

There was no significant difference between the groups in terms of sex distribution, although there was a predominance of females in

each group. The normal group most closely approximated the distribution in the general population--55% of females in the normal sample compared to 51% in the general population (New Zealand Yearbook, 1977).

It has already been seen that the endogenous depressives were significantly older than each of the other groups, but no data was kept on how many admissions each hospitalized subject had had nor at what age they had their first admission, which may be a more relevant statistic. The mean age of both the reactives and the schizophrenics was lower than that of the normals.

Numbers in the study were too small to examine narrow differences in social class and when broad groupings are made there were no significant differences. Brown, Harris & Copeland (1977) found a prevalence of depressives among working class rather than middle class women. If we combine the groups of depressives in the current study we do not find a difference between middle and lower classes (i.e. Levels 3 and 4 and Levels 5 and 6) but we do find that depressives are significantly less likely to belong to the upper class (i.e. Levels 1 and 2) than normals or schizophrenics, and schizophrenics are significantly more likely to belong to Levels 1 and 2 than normals or depressives. However, it must be remembered that for this variable, social class was defined by Elley & Irving's classification which is different from that used by Brown. In an American study Warheit (1979) found that low socio-economic status was significantly correlated with higher depression scores. Conversely, Munro (1966b) found that his Edinburgh sample showed no difference in social class, a finding also of Faris & Dunham (1960) in Chicago, and Clark (1949) and Hare (1955). Malzburg (1956a and b) found a higher incidence of manic-depressive psychosis in the upper social classes, but this group would have included manic subjects as well as depressives. These differences in

results may reflect the different types of population studies and the different types of social indicators used, although it does not explain the preponderance of schizophrenics in the upper class. In spite of this preponderance in the upper class schizophrenics are significantly less likely to have School Certificate or a higher educational qualifications than normals or reactive depressives. This suggests that schizophrenics may be people born into higher social classes where they are unable to measure up academically.

On the variable "religion" it was found that reactive depressives and schizophrenics are significantly more likely to be Roman Catholic than endogenous depressives or normals, and there is a similar significant difference when only endogenous depressives and reactive depressive are compared. In New Zealand 80% of the population claim to be Christians, including 16% who are Roman Catholic (New Zealand Yearbook, 1977). Parker, Spielberger, Wallace & Becker (1959) compared manic-depressives, schizophrenics and neurotic depressives in North Carolina. They found that the manic-depressive group contained a significantly higher proportion of Presbyterians, Episcopalians and Roman Catholics and a significantly low proportion of Baptists. Comparing the manic-depressives in the current study with the proportion in the general population in New Zealand, numbers are not large enough to determine significance but seem to approximate the percentage in the general population except for Presbyterians (35%) compared to 20% in the general population. Gibson (1975); Hudgens et al (1967); and Munro (1966b) examined the religious affiliations of their subjects without finding any significant differences. One cannot easily compare the results because of the differing incidences of religious groups in different populations.

Results

Throughout the results the following abbreviations are used for table columns:

E = Endogenous Depressives

R = Reactive Depressives

S = Schizophrenics

N = Normals

T = Total

Major findings related to the hypotheses are as follows:

Hypothesis 1 (Familial features)

There was no difference in family size between groups (see Tables 3 and 4), nor was there any significant difference in position in family (see Tables 5 and 6), although there was a tendency for endogenous depressives to be later members of the family.

Table 3

Mean Number of Children in Family

Endogenous Depressives	=	4.60
Reactive Depressives	=	4.40
Schizophrenics	=	4.80
Normals	=	4.45

Table 4
Size of Family

Summary table for analysis of variance			
Source of variation	<u>df</u>	Sums of squares	Mean squares
Between groups	3	1.94	.6470
Within groups	76	631.75	8.3125
Total	79	633.69	XXX

$$\underline{F} (3,76) = .078 \text{ n.s.}$$

Table 5
Mean Position in Family

Endogenous Depressives	=	3.25
Reactive Depressives	=	2.45
Schizophrenics	=	2.65
Normals	=	2.70

Table 6
Position in Family

Summary table for analysis of variance			
Source of variation	<u>df</u>	Sums of squares	Mean squares
Between groups	3	7.037	2.346
Within groups	76	241.450	3.177
Total	79	248.487	XXX

$$\underline{F} (3,76) = .738 \text{ n.s.}$$

Hypothesis 2 (Difference in actual and perceived parental deprivation between the groups)

Subjects were compared to see whether they had lived with their natural mother and/or natural father from birth, even if there was subsequent separation or bereavement. There were no differences among the groups in the incidence of those who had lived apart from their natural mother or father from birth (see Tables 7 and 8), nor was there a difference in the incidence of either parent living apart from them at any period before the subject was 17 (see Tables 9 and 10).

However, when subjects were compared for the incidence of both parents living apart from the subject at some period up to age 17, though not necessarily with both parents absent at the same time, the incidence of endogenous depressives and schizophrenics found to have both parents absent was higher than for reactive depressives and normals (see Table 11). When this period is extended to a minimum of 6 months findings are similar (see Tables 12, 13, 14).

Endogenous depressives and schizophrenics have also significantly more often spent time in institutions than normals, before they are 17 (see Table 15).

Table 7

Lived With Natural Mother From Birth

	E	R	S	N	T
Lived with natural mother	16	20	18	17	71
Did not live with natural mother	4	0	2	3	9
Total	20	20	20	20	80

$$\chi^2 = 4.83, \text{ df } 3 \text{ n.s.}$$

There was no significant difference among the subjects who had lived with their natural mother from birth, nor with their fathers (see Table 8).

Table 8
Lived With Natural Father From Birth

	E	R	S	N	T
Lived with natural father	15	19	17	17	68
Did not live with natural father	5	1	3	3	12
Total	20	20	20	20	80

$$\chi^2 = 3.136, \text{ df } 3 \text{ n.s.}$$

Tables 9 and 10 show the incidence of fathers living apart from the subjects for a period of at least a month, before the age of 17. In some cases the father never lived with the subject and was unknown to the subject. Cases where the father had died were initially not included.

It was found that there were no significant differences in the incidence of fathers living apart from subjects, nor of mothers living apart from subjects. When deceased fathers and mothers are included there is still no significant difference for either father or mother. When endogenous depressives are compared with reactive depressives only on these variables no significant differences were found.

Table 9
Natural Father Living Apart From Subject

	E	R	S	N	T
Father lived apart	11	6	11	12	40
Father did not live apart	9	13	8	7	37
Total	20	19	19	19	77

$$\chi^2 = 4.448, \text{ df } 3 \text{ n.s.}$$

Table 10
Natural Mother Living Apart From Subject

	E	R	S	N	T
Mother lived apart	9	4	11	9	33
Mother did not live apart	10	15	8	9	42
Total	19	19	19	18	75

$$\chi^2 = 5.9, \text{ df } 3 \text{ n.s.}$$

Subjects were compared to see the incidence of absence of both parents at some period up to age 17. The parents were not necessarily absent at the same time (see Table 11).

Table 11
Both Parents Absent

	E	R	S	N	T
Both parents absent	10	3	11	6	30
Both parents not absent	10	17	9	14	50
Total	20	20	20	20	80

$$\chi^2 = 8.74, \text{ df } 3 \text{ p} < .02$$

Comparing endogenous depressives with reatives, $\chi^2 = 5.56$, df 1 $p < .02$, and comparing schizophrenics with reactive depressives, $\chi^2 = 7.04$, $p < .01$. All other combinations show no significant differences. Endogenous depressives and schizophrenics are significantly more likely to have had both parents absent at some time before they were 17 than reactive depressives.

Figures for those who were separated from their natural parents for 6 months are similar to those whose parents were absent for shorter periods (see Tables 12, 13, 14). Both parents were not necessarily absent at the same time.

Table 12
Separated From Natural Mother For 6 Months Before 17

	E	R	S	N	T
Separated	10	4	11	8	33
Not separated	10	16	9	12	47
Total	20	20	20	20	80

$$\chi^2 = 5.94, \text{ df } 3 \text{ n.s.}$$

Comparing endogenous depressives with reactive depressives, $\chi^2 = 3.96$, df 1 $p < .05$.

Table 13

Separated From Natural Father For 6 Months Before 17

	E	R	S	N	T
Separated	11	8	11	9	39
Not separated	9	12	9	11	41
Total	20	20	20	20	80

$$\chi^2 = 1.1816, \text{ df } 3 \text{ n.s.}$$

Table 14

Separated From Both Parents For a Period of 6 Months Before 17

	E	R	S	N	T
Separated	10	3	11	6	30
Not Separated	10	17	9	14	50
Total	20	20	20	20	80

$$\chi^2 = 8.74, \text{ df } 3 \text{ } p < .02$$

Comparing endogenous depressives and reactive depressives, $\chi^2 = 5.56$, df 1 $p < .02$, and schizophrenics compared with reactive depressives, $\chi^2 = 7.04$, df 1 $p < .01$. There were no significant differences between the other groups. Endogenous depressives and schizophrenics were significantly more likely to have had both parents absent for 6 months before the subject was 17, than the reactive depressives.

Subjects were asked if they had spent any time in an institution before they were 17. 'Significant time' was any time from a month to, in some cases, longer than a year. 'Institution' included general hospital, boarding school, mental hospital, Training Farm, Health Camp, Navy, Social Welfare Home, Convent for Wayward Girls (see Table 15).

Table 15
Time In An Institution Before 17

	E	R	S	N	T
In an institution	8	4	7	1	20
Not in an institution	12	16	13	19	60
Total	20	20	20	20	80

$$\chi^2 = 8.001, \text{ df } 3 \text{ p} < .05$$

There are significant differences between the groups in incidence of those who have spent time in an institution before they were 17. Comparing endogenous depressives and normals, $\chi^2 = 7.02$, df 1 $p < .01$, and comparing schizophrenics and normals, $\chi^2 = 5.62$, df 1 $p < .02$. Differences between the other groups, tested by chi-square, were not significant. Endogenous depressives and schizophrenics have significantly more often spent time in institutions than normals by the time they are 17.

There was no difference in the incidence of subjects who felt unwanted as children (see Table 16), nor did any groups feel particularly as children that their mothers did not love them (see Table 17), but endogenous depressives were more likely to have felt that their fathers did not love them (see Table 18). There were no differences among the

groups in the incidence of those who feel now that they were not wanted as children (see Table 19), or that their mothers did not love them (see Table 20), but the endogenous depressives still feel that their fathers did not love them (see Table 21). There were no differences among the groups in closeness to mother or father (see Tables 22 and 23).

Subjects were asked whether they felt wanted as children. No further guidelines were given. Results are shown in Table 16.

Table 16

As a Child Subject Felt Not Wanted

	E	R	S	N	T
Not wanted	7	5	6	3	21
Wanted	13	15	14	17	59
Total	20	20	20	20	80

$$\chi^2 = 2.258, \text{ df } 3 \text{ n.s.}$$

Subjects were asked whether they felt as children that their mothers did not love them, and whether they felt as children that their fathers did not love them. Results are shown in Table 17 and 18.

Table 17

As a Child Felt That Mother Did Not Love Him/Her

	E	R	S	N	T
Mother did not love	6	3	6	5	20
Mother did love	14	17	14	15	60
Total	20	20	20	20	80

$$\chi^2 = 1.601, \text{ df } 3 \text{ n.s.}$$

Table 18

As a Child Felt That Father Did Not Love Him/Her

	E	R	S	N	T
Father did not love	10	4	2	2	18
Father did love	10	16	18	18	62
Total	20	20	20	20	80

$$\chi^2 = 12.924, \text{ df } 3 \text{ p} < .01$$

Comparing endogenous depressives and reactive depressives only, $\chi^2 = 3.956, \text{ df } 1 \text{ p} < .05$.

When endogenous depressives are compared with schizophrenics on this variable, $\chi^2 = 5.48, \text{ df } 1 \text{ p} < .02$, and when endogenous depressives are compared with normals, $\chi^2 = 5.48, \text{ df } 1 \text{ p} < .02$. There were no other significant differences between the groups. Endogenous depressives are significantly more likely than any of the other groups to report having felt that their fathers did not love them.

Subjects were also asked if they now feel that they were not wanted as children, if they now felt that their mothers did not love them when they were children and if they now felt that their fathers did not love them when they were children. Results are given in Tables 19, 20 and 21.

Table 19

Now Feel That They Were Not Wanted As Children

	E	R	S	N	T
Not wanted	6	3	4	1	14
Wanted	14	17	16	19	66
Total	20	20	20	20	80

$$\chi^2 = 4.276, \text{ df } 3 \text{ p} < .3 \text{ n.s.}$$

Table 20

Now Feel Their Mothers Did Not Love Them As Children

	E	R	S	N	T
Mother did not love	3	0	5	2	10
Mother did love	17	20	15	18	70
Total	20	20	20	20	80

$$\chi^2 = 5.942, \text{ df } 3 \text{ p} < .2 \text{ n.s.}$$

Table 21

Now Feel That Their Father Did Not Love Them As Children

	E	R	S	N	T
Father did not love	10	2	4	3	19
Father did love	10	18	16	17	61
Total	20	20	20	20	80

$$\chi^2 = 10.895, \text{ df } p < .02$$

There are significant difference among the groups. When endogenous depressives were compared with each of the other groups the following was found:

Reactive Depressives $\chi^2 = 5.480, \text{ df } 1 p < .02$

Schizophrenics $\chi^2 = 3.956, \text{ df } 1 p < .05$

Normals $\chi^2 = 5.560, \text{ df } 1 p < .02$

Fifty percent of the endogenous depressives said that they felt that their father did not love them when they were children.

Subjects were asked to rate on a 7 point scale how close they were to their parents when they were children. No specific age or time was chosen and subjects had merely to describe their own perception of how close they were to their parents. A rating of 1 indicated an extremely close relationship. A rating of 7 would indicate a parent who was totally absent. For this factor a one way analysis of variance was calculated. Mean scores for each category was:

Endogenous Depressives = 3.00

Reactive Depressives = 2.35

Schizophrenics = 3.45

Normals = 2.95

Table 22
Closeness To Mother As A Child

Summary table for analysis of variance			
Source of variation	<u>df</u>	Sums of squares	Mean squares
Between groups	3	12.23	4.080
Within groups	76	286.45	3.769
Total	79	298.68	XXX

$$\underline{F} (3,76) = 1.08 \text{ n.s.}$$

Using the same criteria for fathers mean scores were:

Endogenous Depressives = 4.30

Reactive Depressives = 2.85

Schizophrenics = 3.15

Normals = 3.55

Table 23
Closeness To Father As A Child

Summary table for analysis of variance			
Source of variation	<u>df</u>	Sums of squares	Mean squares
Between groups	3	23.637	7.879
Within groups	76	354.250	4.661
Total	79	377.887	XXX

$$\underline{F} (3,76) = 1.69 \text{ n.s.}$$

However, if we compare only endogenous depressives and reactive depressives we find a significant difference at the .03 level as shown in Table 24.

Table 24

Closeness To Father As A Child

(Comparison of endogenous and reactive depressives)

Summary table for analysis of variance			
Source of variation	<u>df</u>	Sums of squares	Mean squares
Between groups	1	21.025	21.025
Within groups	38	184.750	4.862
Total	39	205.775	XXX

$$\underline{F} (1,38) = 4.324, p < .05$$

An interesting finding is that, while rarely did incidence reach statistical significance, on almost all variables reactive depressives had the lowest incidence of parental deprivation. They came from the smallest families and had the earliest family position; none were adopted; more of them lived with their natural mothers and fathers from birth. Reactive depressives had more natural mothers still alive, had the lowest incidence of mothers and fathers who lived apart from them, the lowest incidence of both parents living apart from them (significant), the lowest incidence of separation for 6 months from mother, and natural father, and from both parents (significant). They had the lowest incidence of feeling as children that their mother did not love them. None of them reported feeling now that their mothers did not love them; they reported the lowest incidence of feeling now

that their fathers did not love them; they were closest to their mothers and to their fathers as children.

Hypothesis 3 (Comparison of actual parental deprivation of endogenous depressives and reactives)

Results show that the fathers and mothers of endogenous depressives are more likely to have died than the fathers and mothers of reactive depressives. However, when this is controlled for age there is no difference (see Appendix C). Both parents of endogenous depressives are more likely to have lived apart from them than both parents of reactive depressives (see Table 11). Endogenous depressives are more likely to have been separated from their mothers for a period of 6 months than reactive depressives (see Table 12), and to have been separated from both parents for a period of 6 months (see Table 14).

On other aspects of actual parental deprivation there were no significant differences between the two groups.

Hypothesis 4 (Comparison of perceived parental deprivation between endogenous depressives and reactives)

Findings show that endogenous depressives felt as children that their fathers did not love them, more than reactives felt this (see Table 18), and in retrospect they still feel that their fathers did not love them when they were children (see Table 21). They were less close to their fathers as children than reactive depressives were (see Table 24).

Hypothesis 5 (Suicidal thoughts and attempts)

Normals are less likely to report having had suicidal thoughts than any of the other groups (see Table 25) and are also less likely

to have made an attempt at suicide than endogenous depressives or schizophrenics (see Table 26).

Table 25
Suicidal Thoughts

	E	R	S	N	T
Suicidal thoughts	15	11	10	4	40
No suicidal thoughts	5	9	10	16	40
Total	20	20	20	20	80

$$\chi^2 = 12.4, \text{ df } 3 \text{ p} < .01$$

Normals appear to have significantly fewer suicidal thoughts than all three hospital groups. There was no significant difference in incidence of suicidal thoughts between endogenous depressives and reactive depressives, $\chi^2 = 1.16, \text{ df } 1 \text{ n.s.}$

Table 26
Attempted Suicide

	E	R	S	N	T
Suicide attempt	11	6	9	2	28
No suicide attempt	9	14	11	18	52
Total	20	20	20	20	80

$$\chi^2 = 10.11, \text{ df } 3 \text{ p} < .02$$

Normals were significantly less likely to have made a suicide attempt than the endogenous depressives, $\chi^2 = 9.24$, df 1 $p < .01$, or schizophrenics, $\chi^2 = 6.14$, df 1 $p < .02$. There was no significant difference between normals and reactive depressives, $\chi^2 = 2.5$, df 1, n.s.

There was no significant difference in the number of suicide attempts between endogenous and reactive depressives, $\chi^2 = 2.6$, df 1 n.s.

Half the total number of subjects had contemplated suicide and of that number 70% had made an attempt.

Seventy-three percent of the endogenous depressives who had considered suicide had made an attempt; 54.5% of the reactive depressives who had considered suicide had made an attempt; 90% of the schizophrenics who had considered suicide had made an attempt and 50% of the normals who had considered suicide had made an attempt.

Fifty-five percent of the endogenous sample, 30% of the reactive depressive sample, and 45% of the schizophrenic sample and 10% of the normal sample had made an attempt at suicide.

Additional data obtained may be found in Appendix C.

Discussion

This research yielded results which in some cases agreed with and in others differed from the findings of other studies. In the following section these are examined in relation to the hypotheses being considered in the present study.

Hypothesis 1 (Familial features)

Although endogenous depressives were older than the other groups, the size of the families from which they came did not differ significantly among the groups. They were, in fact, almost identical with those of Munro (1966b) who found that depressives came from families of 4.6 siblings and normals from families of 4.37 siblings. In the present study depressives came from families of 4.5 siblings and normals from families of 4.45 siblings. Although endogenous depressives tended to be later members of the family, they were not significantly so, a similar finding to Munro (1966b). When Munro divided into first, second, middle, penultimate and last he found that his moderate depressives were significantly less likely to be the youngest in the family. However, there was no significant difference between the groups in the current study, which were not divided into severe and moderate depressives. The present results are consistent with those of Gibson (1958) who found no significant difference between manic-depressives and schizophrenic patients in relation to birth order. Similarly Hudgens et al (1967) did not find a difference in birth order between their bi-polar manic-depressives and matched controls.

Endogenous depressives do not come from larger families, nor do they differ in position in family from the other groups.

Hypothesis 2 (Comparison of deprivation among the groups)

While in the present study two endogenous depressives were adopted and no reactive depressives or schizophrenics, this loses importance because two normals were also adopted. Furthermore, differences did not exist between the groups in relation to the number of half-siblings or adoptive siblings, indicating that having siblings who are not full-blooded relations is not a predictor of later depression or schizophrenia.

An important finding in the present study is that living apart from one's natural father from birth does not lead to later depression or schizophrenia. This is of some social significance when one considers the high incidence of ex-nuptial births in New Zealand (17.4% in 1976) (New Zealand Yearbook, 1977), of whom only 35% remained with their natural fathers. Similarly it was found that living apart from one's natural mother from birth (which happened to 53% of those born ex-nuptially in 1976, who were adopted) does not predispose to depression or schizophrenia, but this is not to say that it may not predispose to other types of mental illness (e.g. neurosis or personality disorder) or social problems e.g. delinquency (Misra, 1977).

Endogenous depressives and schizophrenics are more likely than reactives or normals to spend some time in an institution before they are 17. This may indicate that institutionalization could produce or exacerbate such illnesses but could of course also indicate that the illnesses had already appeared to such an extent that it was felt wise to place the child in an institution. However, only one endogenous depressive and one schizophrenic had actually spent time in a mental hospital before 17. Most of the others had been to boarding schools, which raises the issue whether or not parents tend to misjudge signs of mental illness and assess the child as being in need of a boarding

school environment, when in fact the child may need psychiatric help. The mean age of placement in institutions for all subjects placed in institutions was 11-13 which could also indicate that adolescent disturbance may have been misinterpreted by parents. It should be remembered that information on this variable came from self-report and further study is indicated.

Although significantly fewer mothers and fathers of endogenous depressives were still alive than mothers and fathers of reactive depressives when this is examined as a function of age the subjects showed no significant differences. This is consistent with the findings of Hudgens et al (1967) who also found no difference in the incidence of deceased parents between bi-polar manic depressives and matched controls.

Parental bereavement is the factor which has been studied most as a variable in studies of the effects of parental deprivation on children (see pp. 15-27). Unfortunately, in the present study which looked at parental bereavement before age 17 the sample was not large enough to calculate any significance. Losses were comparatively small, four endogenous depressives, two reactive depressives, two schizophrenics and three normals having lost a parent by death before they were 17; five of the subjects did not know if their father was still alive and two of these (the two adopted normals) did not know if their mother was still alive. With the declining mortality rate in early life this may well cease to be an important variable in parental deprivation, being superseded by separation from parent through divorce or separation or ex-nuptial birth as the incidence of these increases. To study the significance of parental bereavement a much larger sample would be required.

The present findings indicate that the absence of one parent from the home for a period from a few weeks to permanently does not appear to be related to later depression or schizophrenia. However, it was found that endogenous depressives and schizophrenics have a significantly higher incidence of both parents being absent but not necessarily simultaneously. Caplan & Douglas (1969) report similar results when they compared depressed patients and non-depressed patients and found that many children who had lost one parent and then been placed in a foster home instead of being left with the remaining parent later became depressed. They claimed that this finding stressed the importance of the extent of the disruption of the family on the child. In the present study it was found that when the period of absence from either or both parent is extended to 6 months, results are similar to those for shorter periods, which indicates that even a fairly brief separation, i.e. as short as a month, can still have the same effect on the child.

It is possible that while the child may accept the loss of one parent the loss of the second parent may be too psychologically traumatic in terms of the loss of self-esteem and guilt feelings, and may induce the depressive condition in the child. When we consider the early institutional studies of Bowlby (1951, 1960) and Spitz (1945, 1946) it must be remembered that although their studies were pre-occupied with the mother-child relationship, the child had also already been separated, by virtue of its hospitalization, from its father as well.

One cannot of course overlook the possibility that the pre-morbid personalities of endogenous depressives and schizophrenics are such that they are a contributory factor to parents leaving home.

As almost all the research (e.g. Munro, 1966; Roy, 1978; Brown et al, 1977) uses separation from parents as an indication of parental deprivation, the significantly lower incidence of both parents being separated from reactive depressives in the present study indicates that they have a less parentally deprived upbringing.

In the present study neither the incidence of absence of mother nor the absence of father is significantly different among groups. However, the absence of both parents is significantly higher for endogenous depressives and schizophrenics which suggests that absence of both parents may predispose to psychosis, of which both manic-depression and schizophrenia are forms. Oltman et al (1958) in one of the few similar studies, did not find this, but they included a wider range of psychiatric diagnostic categories in their sample.

Perceptual factors were based upon the subject's perception of the relationship that existed between himself and his natural parents when the subject was a child. Few differences were found between the way the subject claimed to have felt as a child and how he feels now. The interviewer found that in some cases the subject found it a difficult thing to state openly that they felt unloved or unwanted as children. These statements were frequently accompanied by obvious embarrassment and discomfort.

The finding that endogenous depressives were more likely to report that their fathers did not love them--half the endogenous depressives felt this and still do--is not related to sex of the subject. Half the male subjects and half the female subjects felt this.

None of the literature examined looked at precisely these variables--i.e. closeness to parents, being loved or wanted--but some research has looked at variables which can be linked to this research. Jacobson et al (1975) found that an inpatient group (consisting of

psychotic and neurotic depressives) was significantly less likely to have had affectionate mothers or fathers than normals. On such variables as abusive, and shaming, child-rearing practices there were significant differences between the normals and inpatients. Mothers were found to be more rejecting than those of normal subjects, as were fathers. The mothers of inpatients were less tolerant and less affectionate, and the fathers less affectionate, than those of normals. If lack of tolerance, lack of affection, and rejection are signs of lack of love then these findings bear out the findings of the current study in relation to fathers, although Jacobson et al's findings in relation to mothers differ from the present study, in which depressed patients did not see their mothers as unloving. Munro (1966a) found that severe depressives reported a significantly higher incidence of disturbed relationship with both mothers and fathers than normals, but did not define 'disturbed relationship' except to refer to unhappy childhoods. Munro points out that severely depressed patients were inclined to under-report unhappy childhoods because of apathy and retardation. This would offer a possible explanation why subjects in the present study did not report feeling unloved by their mothers but not why they did report not being loved by their fathers.

Parker (1979a, b) found when he compared four types of child-rearing practice that both mothers and fathers of manic-depressives were more likely to have a child-rearing pattern of low care, high overprotection or low care, low overprotection than a control group of students. If low care associated with either overprotection or lack of protection is a sign of affectionless upbringing then these results agree with those of the present study in relation to fathers. Once more differences exist in relation to mothers when compared with the present study. No explanation of this difference is readily

apparent and indeed it may be related to some form of child-rearing practice or mother-child relationship peculiar to New Zealand.

Further research in this area is indicated.

While many of the early studies (Bowlby, 1951; Spitz, 1945, 1946) looked at maternal deprivation they did not examine paternal deprivation. Western society has tended to place great emphasis on the relationship between mother and child, but has placed little on the relationship between father and child particularly in regard to the largely ignored emotion, paternal love. With the increasing incidence of divorce (48.37% between 1971-1976) (New Zealand Yearbook, 1977) and the tendency for the father to leave home when a marriage breaks up (62.17% increase between 1974-1976) (New Zealand Yearbook, 1977) there could be an increasing belief on the part of children that they were not loved by their fathers. In a home where the situation was compounded by the mother also separating from the child for a period there may be an even greater predisposition to later endogenous depression, with the greater sense of loss occasioned by the absence of both parents (Brown et al, 1977; Gay & Tonge, 1967; Abraham, 1960).

The significant incidence of feeling unloved by their fathers reported by endogenous depressives is the most important finding in the study and clearly indicates that there is a relationship between reporting feeling unloved by one's father and subsequent endogenous depression.

In our society traditional male roles are only slowly changing. The expression and display of emotion by men is not encouraged and when a lack of love is shown in the family situation there is a high correlation with subsequent depression. Parent-training for males, with greater emphasis on demonstration of love towards children may in some measure help to reduce this depression.

Findings in the present study call into question much of the work of Bowlby (1950). As has been shown Bowlby's work has been criticised (McConaghy, 1979) on the grounds of methodological flaws, particularly lack of control for all relevant variables. Society has tended to place too much responsibility for later mental illness on mother-child relationships and possibly engendered guilt feelings in a generation of women while paying little attention to the father-child relationship. The social implications of the current trend towards one-parent families, in which the solo parent is usually the mother, becomes important in the light of the current research. Children in these families may be at risk of subsequent depression if they interpret the father's absence as showing a lack of love on his part. Probinsky (1979) in a study which examines the Oedipus Complex concludes that "Fathers' presence is of the utmost importance in the rearing of their children.... They are necessary in the sharing with mothers of all phases of child care".

Felix Donnelly says (Big boys don't cry, 1978):

I believe that the disaster area in our family life is with New Zealand fatherhood rather than with mothers.... I have felt angry with a society that prevents the male from being a fully emotional person and consequently a real father.... In my experience, most boys feel distant from their fathers. They know their fathers care for their physical needs, and that this is a form of love, but they feel an enormous emotional chasm between their fathers and themselves. If there is one message I have got loud and clear over the years of listening to the personal problems of males, it is a male's lack of an emotional relationship with his father. And he would have dearly loved it. (pp. 92-94)

It may be argued that findings of the present study show that this is not confined to males, but that daughters may also feel the need for a loving relationship with their fathers. This argument is clearly shown by the work of Roy (1978) who found that separation from father was a vulnerability factor in middle class depressed women but not in working class depressed women. Other research tends not to distinguish between the sexes of subjects when considering separation from father as a variable in depression. It is not, of course, implicit that separation from the father will be taken as an indication that he did not love the subject. It is possible that subjects could feel more unloved by a father who was present than one who was absent.

Hypotheses 3 and 4 (Comparison of endogenous and reactive depressives)

Differences between endogenous depressives and reactive depressives were not as marked as expected. Endogenous depressives had a higher incidence of both parents absent and a higher incidence of mothers absent for 6 months. While the latter is consistent with the findings of Bowlby (1950, 1961) and Spitz (1945, 1946) that it is a predictor of later depression, the endogenous depressives did not, in spite of this, report that their mothers did not love them. However, they seem to be affected by the lack of a loving or close relationship with their fathers, which reactive depressives do not experience (see above discussion).

In relation to the major hypothesis that endogenous depressives would feel that they were not loved by their parents it is clear that endogenous depressives saw themselves as being unloved by their fathers and not close to them, but, consistently with the hypothesis, reactivities did not. Because, as has already been mentioned (p. 71), the literature has not examined reported love from, or closeness to, parents, nor distinguished in the main, between endogenous and reactive depressives

it is probably unwise to make a direct comparison of the present findings with other findings.

Hypothesis 5 (Suicide)

Normal subjects, predictably, reported a lower incidence of suicidal thoughts and attempts than the other groups.

There was no difference between those who had lost a parent by death in childhood and those who had not, in incidence of suicide attempt. Numbers were not large enough to determine whether parental bereavement in adolescence was related to later suicide attempts as found by Hill (1969) and Birtchnell (1970b). Only one subject out of five bereaved before age 12 had attempted suicide, while three out of five bereaved between 12 and 17 had attempted suicide (but see Appendix D).

Gay & Tonge (1967) found that subjects with parental loss (either death or separation) were more likely to attempt suicide. Of the psychiatric patients in the current study there was no difference in the incidence of suicide attempt of those who had suffered childhood loss and those who had not.

While comparative figures for incidence of suicide attempts are hard to find Morgan, Pocock & Pottle (1975) found an incidence of 0.49% in the general population of Bristol and Kraus (1975) found that in New South Wales 1.03% of the general population had attempted suicide, which is considerably lower than the incidence of 10% reported in the present study.

However, the studies of Morgan et al (1975) and Kraus (1975) were based on subjects who had received medical or psychiatric help following a suicide attempt. In the present study neither of the two normal subjects who had attempted suicide had received psychiatric help following the attempt. Although 43% of the inpatient sample had attempted

suicide at some time only a very few had been admitted to hospital for treatment following a suicide attempt (see Appendix D). From this it would seem that the incidence of suicide attempts may be much higher than generally believed. Studies such as those of Morgan et al (1975) and Kraus (1975) are based on statistics gained from those who receive medical or psychiatric help after the attempt, but there may be many instances of attempts which are not reported and for which no professional help is received. This may well explain the discrepancy between the figures from Morgan et al (1975) and Kraus (1975) and the present study in which 10% of a randomly selected normal population had attempted suicide. It may of course, be well argued that a random sample of 20 subjects is too small to draw from which to draw a definite conclusion at this stage, but the present finding is an important one requiring further study.

While suicide has often been considered as being primarily related to depression the reported incidence of suicidal thoughts in the present study was similar in schizophrenics and reactive depressives, and the incidence of suicide attempts similar in schizophrenics and endogenous depressives. Although reactive depressives contemplated suicide as often as endogenous depressives and schizophrenics, they were less likely to act upon their thoughts. This could be accounted for by the more transitory nature of their illness. The high percentage of those who report that they made a suicide attempt after considering it (70% of those who had thought of suicide later making an attempt) indicates that a person who has considered suicide is very much at risk of making an attempt.

The suicide of two of the endogenous depressive subjects since the study was completed (see Appendix D) seems to confirm that previous suicidal thoughts usually lead to an attempt. Both the subjects

concerned exhibited the factors which are significantly related to endogenous depression--a belief that one's father did not love one and/or separation from both parents.

Summary

Results indicate that it is not actual physical deprivation in terms of separation from either one parent that constitutes the difference between endogenous and reactive depressives, but when both parents are separated from the child (although not necessarily at the same time) that endogenous depression is more likely to occur.

Apart from this the differences seem to lie in how the subjects perceived their relationships with their parents. There was no difference in perception of mother, but endogenous depressives felt significantly as children that their fathers did not love them, feel still that their parents did not love them and see themselves as not being so close to their fathers when compared to reactive depressives.

In addition the study tends to suggest that reactive depressives have less parentally deprived upbringings than other psychiatrically ill groups and, surprisingly, than normals.

Suggestions For Further Research

Because the numbers were not large enough to enable some variables, particularly parental bereavement, to be thoroughly examined, a study involving a larger sample would be appropriate, although this may not be feasible because as discussed earlier, psychiatric admissions to New Zealand hospitals may not be in sufficient numbers to supply a sufficiently large sample within a reasonable period of time. Alternatively, further research into the hypothesis that reactive depressives have less parentally deprived upbringings than other groups, including normals, seems to be indicated, with a possible hypothesis that they

do not develop coping skills to deal with later stressful situations, because of a more protected upbringing.

The suggestion that some people who have experienced early parental deprivation avoid situations in life where there is a risk of disappointment which may lead to depression, may also be an area for investigation (see Appendix B).

Appendix A

Childhood Deprivation Questionnaire

Name:

- | | |
|--|-------------------|
| 1 Sex: | 2 Marital Status: |
| 3 Birthdate | 4 Age: |
| 5 Position in the family: | |
| 6 Adopted as a child: | 7 Age: |
| 8 Lived with natural mother from birth: | |
| 9 Lived with natural father from birth: | |
| 10 Lived with other relations from birth: | |
| 11 Spent some time in an institution before age 17, e.g. orphanage,
social welfare home, borstal: | |
| 12 Type of institution: | |
| 13 In institution between what ages: | |
| 14 Raised by foster parents: | 15: Age: |
| 16 Natural father still alive: | |
| 17 Natural mother still alive: | |
| 18 Natural father died before subject was 17: | 19: Age: |
| 20 Natural mother died before subject was 17: | 21: Age: |
| 22 Natural father lived apart from subject
before age 17: | 23: Age: |
| 24 Natural mother lived apart from subject
before age 17: | 25: Age: |
| 26 Separated from natural mother for more
than 6 months before age 17: | 27: Age: |

- 28 Separated from natural father for more
than 6 months before age 17: 29 Age:
- 30 As a child subject felt that he/she was not wanted:
- 31 As a child subject felt that his/her mother did not love him/her:
- 32 As a child subject felt that his/her father did not love him/her:
- 33 Subject feels now that he/she was not wanted as a child:
- 34 Subject feels now that his/her mother did not love him/her:
- 35 Subject feels now that his/her father did not love him/her:
- 36 As a child how close was subject to mother:
1 2 3 4 5 6 7
- 37 As a child how close was subject to father:
1 2 3 4 5 6 7
- 38 As a child how close was subject to adoptive mother:
1 2 3 4 5 6 7
- 39 As a child how close was subject to adoptive father:
1 2 3 4 5 6 7
- 40 Suicidal thoughts:
- 41 Attempted suicide:
- 42 Diagnosis:
- 43 Comments:
- 44 Social Class:
1 2 3 4 5 6
- 45 Religion:
- 46 Education:

Appendix B

A Normal Sample?

The normal sample was selected in the manner described under the section on subjects. Although there was a 25% refusal rate on initial telephone contact, no subject refused at a later stage. At the conclusion of the interview the aims of the research were explained. All normal subjects showed a great deal of interest and a willingness to discuss the hypothesis.

Several interesting features emerged. Out of a random sample of twenty people, one subject was found to be the niece of a paranoid schizophrenic patient in Lake Alice's maximum security villa. Another subject was the sister of the schizophrenic subject who had refused to take part in the research.

Two normal subjects were adopted—one of these into a family which broke up subsequently with the divorce of the adoptive parents. This was the same incidence of adoption as the endogenous depressives and higher than either the reactive depressives or the schizophrenics.

Many of the other subjects had histories of involvement with mentally ill relations. One had a mother who had suffered from post-natal depression for 3 months following the subject's birth. The mother had previously lost a child in infancy. The father of another subject had apparently suffered from arteriosclerotic psychosis prior to his death. He believed that his family were poisoning him and would not eat. The first husband of another normal subject committed suicide while a patient in a mental hospital.

One normal subject claimed to suffer from anxiety, another said she suffered from depression and began to cry during the interview.

This was on the same day that the subject excluded from the research because she had had psychiatric treatment, was interviewed. This subject also cried during the interview and said that her depression which was of longstanding was a result of rejection by her mother, compounded by her father's frequent long absences.

Another normal subject had suffered from reactive depression, sufficient to cause her to attempt suicide, but she had not been treated for the depression.

The wife of another subject explained that her mother had rejected her and left home when she was 3. Another subject said that her father had abandoned her when she was 3 also. Both of these people said that because of the initial rejection by a parent their expectations from life were low. Without a high level of expectation they were seldom disappointed and thus did not get depressed. There was a suggestion that they deliberately avoid situations in life where there is a risk of disappointment.

All subjects in the normal sample showed interest in the research and several asked the researcher to stay and discuss various aspects of mental illness with them after the basic interview was completed. By contrast neither the reactive depressives nor schizophrenics showed any interest in the research after the interview was completed. Several endogenous depressives did show interest in the hypothesis and said that they believed that there was some relationship between their unhappy upbringing and their subsequent depression.

Appendix C

Additional findings:

Table 27

Mean Age At Placement In Institution

Endogenous Depressives	=	13
Reactive Depressives	=	11
Schizophrenics	=	11
Normals	=	12

Table 28

Age Distribution At Placement In Institution

Age	E	R	S	N	T
0- 9	1	1	2	0	4
10-14	5	2	3	1	11
15-17	2	1	2	0	5
Total	8	4	7	1	20

Numbers were too small to calculate significance on this variable.

There was no difference among the groups in numbers of half-siblings and/or adopted siblings.

Three endogenous depressives, no reactive depressives, one schizophrenic, and two normals were raised by foster parents.

Two endogenous depressives and two normals were adopted.

The fathers of one endogenous depressive, one reactive depressive, one schizophrenic, and one normal subject had died before the subject was 17.

The mothers of three endogenous depressives, one reactive depressive, one schizophrenic and two normal subjects had died before the subject was 17.

Numbers on each of these variables were too small to calculate significance.

When subjects are controlled for age by omitting extremes to achieve similar means and omitting those subjects who do not know whether their father is still alive, the incidence of fathers who are still alive is shown in Table 29.

Table 29

Natural Father Still Alive

	E	R	S	N	T
Father still alive	4	8	8	8	28
Father not still alive	11	7	7	8	33
Total	15	15	15	16	61

$$\chi^2 = 3.17, \text{ df } 3 \text{ n.s.}$$

When subjects are controlled for age, and omitting those who do not know whether their mother is still alive, the incidence of mothers who are still alive is shown in Table 30.

Table 30
 Natural Mother Still Alive

	E	R	S	N	T
Mother still alive	5	10	7	6	28
Mother not still alive	10	6	9	10	35
Total	15	16	16	16	63

$$\chi^2 = 3.13, \text{ df } 3 \text{ n.s.}$$

Appendix D

Since completion of the study two of the endogenous depressive sample have committed suicide.

Of these one was not separated from either parent as a child, nor did she believe as child that her father did not love her, although she commented that he was "very growly". She reported at the time of the interview that she now believed that her father had not loved her when she was a child and said that she did not think he loved anybody. This subject had had suicidal thoughts but had not made an attempt because she did not know how to do it.

The other subject had been separated from both parents from 13-17 (boarding school) but had never felt that his father did not love him. He had had suicidal thoughts and had made a previous suicide attempt. This subject's mother was also a subject in the endogenous depressive sample.

As far as is known no other subjects in the study have committed suicide.

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