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CHILDHOOD DEPRESSION : ISSUES IN DEFINITION DIAGNOSIS AND ASSESSMENT AND THE ROLE OF THE TEACHER IN EARLY IDENTIFICATION

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by

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ABSTRACT

Until recently a little understood clinical phenomenon the very existence of which was questioned, depression is now considered a significant affective disorder in children (and adolescents). Given the grave consequences attendant upon childhood depression and the fact that early identification may be an important variable in prognosis, issues relating to its definition and identification are stressed in this dissertation.

In an attempt to clarify controversies surrounding the definition of childhood depression (e.g. whether it is similar to adult depression or not) conceptual models of adult depression are put forward and their implications for childhood depression discussed.

The question of how childhood depression can best be identified and other issues surrounding its assessment and diagnosis are examined. A brief review of measures used in assessment is also included as is a discussion of the use of the DSM-111(-R) with children.

The role of the teacher in the early identification of childhood depression is explored and a more extensive role than is traditional, suggested.

Limitations of the study and suggestions for future research are presented.

CHAPTER 1

1.1 OVERVIEW : CONTROVERSIES IN CHILDHOOD DEPRESSION

1.1.1 Introduction

The existence of depressive illness in childhood has been a controversial issue. The early controversy seems in part to have been a function of theoretical speculation in the absence of clinical data (Rutter, 1986 : 344).

Although by the 1960s there was a considerable body of literature on depression in childhood, no American child psychiatry textbook mentioned the existence of pre-adolescent depression until Rutter and Hersov's in 1977 (Hersov, 1977). The only exceptions were several studies of the depressive phenomena noted in infancy following a significant loss (e.g. Annell 1972, Bowlby 1973).

Over the years, several competing viewpoints on the manifestation of childhood depression have emerged:

1. Depression in children is rare (Graham, 1974) or non-existent (Rie, 1966).
2. Depression in children is masked, and is manifested as behaviour problems such as hyperactivity, aggressiveness, school failure (Glaser, 1968; Cytryn and McKnew, 1974) or as non-specific somatic complaints (Toolan, 1962; Renshaw, 1974).
3. Depression as a clinical syndrome, in a form analogous to that which appears in adults, does exist in children (Rutter, 1986; Puig-Antich, 1987).

The evolution of these viewpoints is briefly traced below.

1.1.2 The denial of the existence of childhood depression

The existence of depression in childhood was questioned on theoretical grounds by those who believed that children lacked the requisite cognitive, affective or intrapsychic mechanisms to experience depression.

Until fairly recently the prevailing view was the psychoanalytic one (e.g. Rochlin, 1961, 1965; Anthony, 1975) that the child's superego was not strong enough for the self-reproach and pathological guilt which was central to depression. Others (e.g. Wolfenstein, 1966) suggested (in Poznanski, 1982 : 4) that children could not sustain a dysphoric mood and would vigorously find ways of escaping from depression. From a cognitive point of view, children's limited understanding of time concepts (cf. Piaget's formal operations) was seen as preventing them from experiencing that hopelessness and despair for the future, which was part of the clinical picture of adult depression. Some clinicians have also implied that children have not matured to a neurological developmental level where they can be depressed.

In addition, the myth of childhood as a happy, carefree state (despite famous writers who described it differently), and the discomfort* which adults had with accepting the existence of depression in childhood served to reinforce this bias in thinking.

In 1966 Rie stated that "the familiar-manifestations of adult non-psychotic depression are virtually non-existent in childhood" (p.653).

1.1.3 The concept of "masked depression" or "depressive equivalents"

In an attempt to resolve the question of whether children possess the ability to experience depressive affects and cognitions, the concept of "masked depression" (Glaser, 1967) or "depressive equivalents" (Toolan, 1962) was put forward. This position held that childhood depressive disorders differ from adult syndromes because most children do not express depression directly (except possibly for short periods of time). Instead it must be

*A parallel could be drawn here with earlier attitudes towards child abuse.

inferred from behaviour and symptoms masking the underlying depressive feelings.

The concept of masked depression in children evolved from the bereavement literature where children were described as expressing less affective grief than adults (cf. Wolfenstein's (1966) concept of children's "short sadness span"). However, what was recognized was that, in response to a significant loss children could demonstrate a wide variety of behavioural disturbances (such as temper tantrums, disobedience, truancy, running away from home, etc.) Because the affective component was not understood, the idea that children show "depressive equivalents" rather than demonstrating open depressive affect, was the first conceptualisation of depression in children (Toolan, 1962).

Many problems were implicated a so-called "depressive equivalents". Conduct disorders (hyperactivity, delinquency, aggressiveness, irritability), psychological reactions, somatic complaints (especially headaches, stomach aches and enuresis) and school problems (school phobia, poor school performance) were the most frequently cited (Carlson and Cantwell, 1980).

Glaser (1967) stressed that depression in children is masked by symptoms not readily indentifiable with this condition. Thus underlying depression was postulated to account for the manifest behaviour even in the face of an absence of dysphoric mood, anhedonia and other characteristics of depression as we know it in adults (cf. adult diagnosis where dysphoric mood is the essential feature.) Toolan (1962) noted that the depressive themes could be uncovered in fantasies and dreams and through responses to projective tests.

As late as 1974, Cytryn and McKnew wrote that "masked depressive reaction" was the most common form of depression in children, and that depressive mood and behaviour were rare. They also stated that the underlying depression was inferred mostly from periodic displays of a purely depressive

picture and depressive themes on projective tests. However, they also noted that in serious cases, the child's thinking is affected by feelings of hopelessness and despair.

Poznanski (1982 : 5) points out that, retrospectively, many of the case histories of children thought to have "masked depression" or "depressive equivalents", gave, in fact, good descriptions of a depressed child. The difficulty, she observes, appears to have been in recognizing the affective state.

There are a number of problems with accepting the idea of depressive equivalents as a definitive view of depression in childhood:

(a) the behaviours cited as masking depression by the various authors are so diverse that they cover the whole gamut of psychopathology in childhood
(b) how these various behaviours are linked to underlying unexpressed affect is not made clear
(c) it is assumed that depressive affect is only rarely observable in children

Because of these obvious pitfalls, and the loose way in which the term "masked depression" has been used, interest in this concept has greatly diminished.

1.1.4 The Recognition of depressive affect in children

An exception to the general trend in the 1960s was the work of Sandler and Joffe (1965) who examined the psychoanalytic records of 100 children and set forth 9 features which they felt were commonly associated with depressive affect. Although primarily concerned with theoretical formulations, their paper made an important contribution because the authors stated very clearly that depressive affect <u>is</u> seen in children.

By 1970, the viewpoint that childhood depression exists and that it may be expressed as depressive symptoms rather than restricted to masked depression was gaining

recognition. In 1970 Poznanski and Zrull (1970) published a clinical study of 14 children who showed recognizably overt depression. Malmquist (1971) proposed a classification of childhood depression that took into account the stages of development and how they affect the manifestation of depression. Also, in 1971, the Fourth Congress of the Union of European Pedopsychiatrists convened in Sweden and took as its theme, "Depressive States in Childhood and Adolescence". Cytryn and McKnew (1972, 1974) published two articles on childhood depression: one on classification and the second on possible biochemical correlates. Again, in 1972, the Committee on Child Psychiatry of the Group for the Advancement of Psychiatry (GAP) published a report in which they included "for the first time a category of childhood depression under 'psychoneurotic disorders' in a proposal for a diagnostic nomenclature suitable for children and adolescents" (Poznanski, 1983 : 6). In 1975 the National Institute of Mental Health (NIMH) held a conference on depression in childhood that addressed many of the issues and obstacles in studying childhood depression. (Proceedings reviewed by Schulterbrandt and Raskin, 1977.) In 1977 Rutter and Hersov in "Child Psychiatry" and Kolb in "Modern Clinical Psychiatry" recognized the existence of childhood depression.

Still, cautionary voices were raised, and some investigators (e.g. Lefkowitz and Burton, 1978) warned that the depressive symptoms observed in children may reflect transitory developmental phenomena rather than a distinct clinical syndrome.

1.1.5 Depressive affect versus depressive syndrome in children

By the late 1970s, there was fairly widespread acceptance of the existence of depressive affect in children. Two papers, Carlson and Cantwell (1980) in "Unmasking Masked Depression in Children and Adolescents" and Cytryn, McKnew and Bunney, 1980, acknowledged that overt depression was seen in children and that while "masking

behaviours" (acting out) may accompany depression in children, they are to be seen as co-existing with the depressive disorder, not as part of the syndrome. Carlson and Cantwell (1980 : 449) further clarified the difference between the behaviour problems of children who are simply depressed and those who have diagnoses of both depressive and behaviour disorders: (See Chapter 4 for a discussion of this point).

With the question of the existence of depressive affect in children resolved, debate came to centre around the issue of whether a primary depressive syndrome occurs in children that is analogous to a Major Depressive Disorder in adults (see section on Biological Correlates of Depression). The investigation of diagnostic criteria in childhood depression became a salient research focus.

In the early and mid 1970s, before diagnostic criteria for use with children were agreed upon, each author seemed to list idiosyncratic groups of (clinically-observed) symptoms in describing childhood depression. In Kovacs and Beck's 1977 review of the various sets of symptomatology put forth by nine authors, the number of symptoms listed by individuals varied from five to seventeen. This lack of unanimity about symptom patterns and lack of agreement about diagnostic criteria seemed to foster a tendency for clinicians to go from completely ignoring depression in children to suddenly labelling all dysphoric mood as representing a depressive syndrome.

Weinberg (1973) was the first researcher to design diagnostic criteria specifically for children prior to diagnosing a group of children as depressed or non-depressed. He also treated the depressed group with tricyclic medication. When this article was published, the editors took the unusual step of prefacing it with a note saying that they did not necessarily agree with Weinberg's article. The need to print a statement of this nature, suggests the emotions and conflict that his article may have engendered.

Poznanski (1979) put forward criteria for children derived from the data analysis of moderately and severely depressed children.

Despite the existence of criteria such as Weinberg and Poznanski's* most recent researchers (e.g. Puig-Antich, 1987) have used the two sets of adult criteria i.e. Research Diagnostic Criteria (RDC)(1972) and Diagnostic and Statistical Manual of Mental Disorders (DSM 111, 1980; DSM-111-R, 1987) in the unmodified form for their research in childhood depression.

The major objection to the use of DSM 111 criteria or RDC criteria has been that they were used unmodified from adults in the diagnosis of children, thereby treating children like "little adults". However, as several writers point out (e.g. Kashani et al, 1981, Rutter et al, 1986) the problem which is more central to the diagnosis of depression in children is not diagnostic criteria, but rather the difficulty of delineating a core clinical picture. A central problem is determining the significance of the symptoms since developmental stage of the child colours both their expression and their interpretation.

The classification of depression in adult psychiatry has sparked considerable controversy. The split into bipolar versus unipolar illness has appeared to be a solid division in adult affective disorder** but this is of little help in child psychiatry where manic-depressive illness is still considered rare. Other classifications of the vast array of depressions in adults have been controversial e.g. splits such as primary vs secondary, reactive versus non-reactive (endogenous). Some writers argue against such splits on the grounds that depression is a unidimensional condition and such divisions are therefore arbitrary.

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*Weinberg and Poznanski's criteria and those of the RDC and DSM-111 are presented in Appendix A.
**Now "mood disorder" (DSM-111-R, 1987)

Very little work has been done in subclassifying affective disorders in childhood along the lines of traditional classification systems e.g. DSM-111. However, recent research (using adult diagnostic criteria, indicates that psychotic and endogenous forms of major depressive disorder do occur and are not a rarity (Rutter, 1986 : 345). In a recent study (Chambers, Puig-Antich et al, 1982), 40% of prepubertal children with diagnosed major depressive disorders showed depressive hallucinations and 50% fitted Research Diagnostic Criteria (RDC) for endogenous subtype. Nonetheless, while the issue of adult subclassification remains controversial and while all the data on childhood depression is not yet in, it seems premature to draw conclusions about the subject as it relates to childhood depression.

- In addition various attempts have been made at developing empirically-derived classification systems for types of childhood depression (e.g. Malmquist, 1971; Cytryn and McKnew, 1972). However these are based on diverse organisational schemes e.g. developmental stage, etiology, severity or phenomenology and none have gained universal acceptance.

Controversy about the etiology of childhood depression is perhaps most clearly seen in discussions about treatment (the few that exist). As Poznanski drily remarks (1982 : 8): "Theories about etiology directly influece treatment approaches regardless of the lack of any information about either etiology or treatment." Thus psychoanalytically orientated therapists may recommend outpatient psychotherapy exclusively, for children with genetically transmitted mood disorders, such as bipolar illness, while biologically inclined therapists are inclined to think solely in terms of the use of medication. Some therapists feel drug therapy in children for any purpose is practically tantamount to child abuse while others want to use the latest drug treatment the moment a problem with a child seems refractory.

This dissertation is not intended as a format for the therapy versus drug treatment debate. Suffice to note that at present, mechanisms of drug action in depressed children are imprecisely understood and any special modifications of therapy, including cognitive approaches have yet to be fully described for depressed children. The treatment of depressed children has therefore barely started to be explored.

1.1.6 Similarity between depression in childhood and depression in adulthood

Thus, during the last decade there has come a general recognition that children do experience a range of affects and that overt depressive disorders can and do occur in childhood. Furthermore, children and adolescents can show major depressive disorders that fully meet the diagnostic criteria used with adults (e.g. DSM-111*, RDC.). The use of unmodified adult diagnostic criteria, while initially controversial, has come to be generally accepted and has been a fertile approach for generating substantial amounts of data in a relatively short period of time.

This data indicates that the basic phenomenology of major depression, dysthymia and manic disorder are quite similar from six years to senescence (Carlson and Cantwell, 1980; Poznanski, 1982; Kovacs et al, 1984). Moreover, psychotic and endogenous forms of major depressive disorder do occur in children and are not a rarity. Taken together with the evidence from biological and genetic studies (see Chapter 3) these findings point to the similarity or possible identity of the nature of major depression in all age groups (over 6 years of age) and generally support the position taken by the DSM-111 (and DSM-111-R) (American Psychiatric Association, 1980, 1987). We have thus moved a full circle from the position where the very existence of childhood depression was denied.

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*DSM-111-R was published in 1987 but DSM-111 is cited here because almost all of the literature on children to date has used this classification system

However, certain issues remain unresolved. For example there is not enough data to differentiate between similarity or identity regarding different ages of onset. It is conceivable, for example, that "onset in childhood rather than in adult life of depressive illness may have serious implications for etiology, pathogenesis, course and treatment" (Rutter, 1986 : 347). Also, we do not know at present whether affective disorders at all ages consitute a single "disease" or whether, as in diabetes, we may have to distinguish a juvenile and an adult form. These are questions that may be illuminated by further research into biological markers and genetic studies.

Several writers (e.g. Poznanski, 1982 : 9; Kashani, 1981 : 151) point out that research on depression in childhood is intrinsically more complex because of a child's developmental changes and clearly the research in childhood depression that remains to be done needs to be developmentally orientated. By focussing on the ways in which affective disorders are different at various stages of life, as a reflection of biological, cognitive and affective developmental transitions, we should go a long way towards resolving remaining controversies.

1.2 Motivation for this study

Although several theoretical and empirical advances have been made in the domain of childhood depression and a general consensus has emerged that childhood depression is similar to that found in adults, its nosology remains controversial and it is evident that many issues in the definition, diagnosis and assessment of this disorder in children await resolution.

Given prevalence estimates which indicate that at any one time as many as 14% of normal elementary school children (grades 4 to 6) manifest "clinically relevant"* levels of depression (Reynolds, 1986) and that the figures range from

*i.e. scored above the recommended cut-off score of 19 on the Children's Depression Inventory (Kovacs, 1980/81, 1983)

20 to 60 per cent for specific clinical populations (Reynold's 1986 review), it is apparent that childhood depression is far more widespread than was initially contemplated.

Moreover it appears that childhood depression, especially if untreated, predisposes to subsequent episodes of Major Depressive Disorder (Kovacs, Feinberg, Crouse-Novak, 1984) and that early onset depressive disorder may constitute the most serious form of the illness. For example, Kovacs' (1985) follow up study of pre-pubertal and adolescent onset affective illness shows a rate of over 20% of subsequent bipolarity. In studies of bipolar affective disorder in adults (Carlson, Davenport and Jameson, 1977 in Reynolds 1985), 20-30% manifested the onset of the disorder during childhood or adolescence. Also of concern is the consistent relationship which has been demonstrated between depression and suicide (e.g. Cohen-Sandler, Berman & King, 1982 in Reynolds, 1984).

In the face of such a serious picture, several investigators have stressed the importance of early identification of depressive indicators in children (e.g. Reynolds 1985, Puig-Antich 1987, etc.) Noteworthy is McKnew et al's (1983) finding that early detection appears to be an important variable in prognosis.

Furthermore, certain clinical pictures, whose onsets are fairly specific to children, seem to co-exist frequently with the syndrome of depression. School distress is an example of one such frequent picture. The interaction between symptoms of poor school adjustment (e.g. school failure, behavioural problems, poor peer relationships) and symptoms of depression (poor concentration, low self-esteem, feelings of hopelessness, helplessness, etc) suggests that teachers may be uniquely placed to fulfil a screening function in cases of childhood depression. However, since they have typically received no guidelines, the role, if any, that they may play in its early identification, needs to be defined.

The grave consequences which can result from childhood depressive disorder; the importance of early identification for prognosis; the evidence that clinical depressive pictures in children are not transitory; and the fact that depressive disorder appears to be widespread in childhood, indicate that there is an urgent need to clarify issues surrounding its identification and to begin thinking in terms of prevention.

1.3 Aims of this study

This dissertation will seek to:

i) Present an overview of the field of childhood depression

ii) Examine models for conceptualising depression in children

iii) Outline and debate issues in the definition, diagnosis and assessment of childhood depression

iv) Evaluate the role of teachers, if any, in its early identification.

1.4 Scope of this study

The focus will be on 4 broad areas: historical backgrounds; models for conceptualising depression in children; issues in definition diagnosis and assessment of depression in children; the role of the teacher in the early identification of depressed children.

These issues will be discussed as they pertain to depression in prepubertal children (i.e. children aged six to twelve). The rationale for looking exclusively at prepubertal children is that the majority of studies in childhood depression have focussed on them and therefore, most is known about this age group. In addition, the existence and nosology of depression in prepubertal children has been a controversial issue.

While depression in adolescence has been more readily acknowledged, it is sometimes seen as an expectable part of the turmoil associated with this stage and this possibility constitutes a confounding variable which needs to be taken into account in any discussion of adolescent subjects. Before 6 years little work has been done and very little is known. The limited language use (Piaget and others) of these younger children has been considered an obstacle to their assessment.

In this dissertation, the word "depression" will be used as follows: Increasingly, in the literature on children, the term has been used to refer to the major affective disorders (now called "mood disorders" : DSM-111-R, 1987). Therefore, from now on, and unless otherwise stated, in this dissertation, the term will refer almost exclusively to the 2 major affective disorders most often diagnosed in children, namely Major Depressive Disorder and Dysthymia. On occasion, the terms Affective Disorder/Illness; Depressive Disorder/Illness will be used in the same sense (see Chapter 4 for a fuller discussion of terminology).

1.5 Plan of development

As a point of departure, the recent history of the concept of childhood depression, is reviewed with emphasis on some of the controversy and conflicts which have resulted from attempts to study it. The author's aim is to give an overview of the field and to highlight some of the issues and changes in thinking which have taken place.

As a second step towards clarification, theoretical concepts of depression will be reviewed for the purpose of reaching an understanding of what has been meant by depression. The question to be answered is whether what has been called depression in children conforms to the conceptualisations which have been put forth in adult depression. In addition the different ways in which

etiology is conceptualised, have different implications for treatment.

Thirdly, some of the issues surrounding definition, diagnosis and assessment of childhood depression will be discussed in an attempt to clarify problems surrounding its nosology and identification.

Fourthly, the role of the teacher in the early identification of depression will be considered for the reasons mentioned above.

Lastly, limitations of this study and possible future directions, will be outlined.

CHAPTER 2

2.0 CONCEPTUAL MODELS OF DEPRESSION AND THEIR APPLICATION TO CHILDHOOD DEPRESSION

2.1 Introduction

The imbalance between what is known about adult and childhood depression is substantial. This, together with the fact that many prominent researchers (e.g. Carlson and Cantwell, 1983; Puig-Antich, 1984) now consider that childhood depression may be equivalent to adult depression in many ways, has suggested that a sensible strategy is to "work backwards" from adult depression, extending the models, concepts and theories that have been useful there, to the study of childhood affective disorders (e.g. Kovacs & Beck, 1977; Seligman and Peters, 1986, etc.)

Prominent among conceptual models of adult depression are the psychoanalytic, learned helplessness, cognitive distortion, and psycho-biological approaches. I will briefly review these and attempt to indicate their applicability and usefulness with reference to childhood depression. The aim is not to suggest that any one adult theory may be most applicable to childhood depression, but rather that, since childhood depression probably has a multifactorial etiology, it is important to examine it using various frameworks.

2.2 Psychoanalytic concepts of depression

There are diverse schools of psychoanalytic thought on depression, each with a unique emphasis. Three main conceptual themes emerge: the classical Abraham-Freud position which emphasizes introjected anger following the loss of an ambivalently-loved object; more recent ego-analytic approaches (Bibring and others) which focus on loss of self-esteem associated with the inability of the ego to achieve narcissistically-significant goals; and object relations theory (Klein) which stresses depressive vulnerability in relation to feelings of ambivalence associated with lack of an internalised 'good' object.

I will consider first the original classic psychoanalytic position (delineated in its most mature form by Sandor Rado (1928) because this formulation has probably been the most widely quoted psychological conceptualisation of depression and has been the bed-rock upon which others have built. The ego-analytic and object relations approaches will also be touched upon because they have proved (object relations theory in particular) to be powerful tools at the clinical level.

2.2.1 Classical Psychoanalytic position

Central to an understanding of the classical psychoanalytic view of depression is the distinction between grief and mourning following the loss of a loved person (through death or dissolution of a relationship) and depression (melancholia). While mourning is considered a natural phenomenon, in depression the picture is complicated because feelings of anger and hostility co-exist with feelings of love towards the object. This ambivalence (Abraham, 1911) colours the mourner's reaction to the loss of the love object and normal grief cannot be worked through. It thus persists and takes the form of "pathological mourning" (depression).

Abraham (1911) considered ambivalence in relationships to derive from disappointments in the maternal relationship at the pregenital stage, before the resolution of oedipal conflicts. Abraham's discovery (1916) that oral eroticism is enormously increased in depressed patients prompted him to propose that these early narcissistic disappointments led to feelings of ambivalence and fixation at the oral-biting stage of psycho-sexual development. Abraham termed this first disappointment in object love the "primal parathymia" and theorized that its repetition in some form later in life (e.g. death of an ambivalently-loved object) might precipitate depression.

Freud (1917) while agreeing with Abraham's basic tenets, noted that in addition to actual object loss, the loss may be imagined or unconsciously perceived. He further proposed that the preconditions for melancholia were not only object loss and ambivalence, but also regression of libido into the ego. Like mourning, depression involved "painful dejection", withdrawal of interest from the world, reduction in activity and loss of ability to love. In contrast to mourning, it also involved loss of self-esteem, self-accusation and self-punishment.

Freud explained the symptoms of melancholia in terms of identification (introjection). Upon object loss, libido is withdrawn into the ego. The withdrawn libido is then used by the ego in an attempt to undo the loss, by introjecting the object. Rage and hostility towards this ambivalently-loved object are then turned on the self (to punish the abandoning love object) thus leading to loss of self esteem and "depressive self-reproaches" (guilt). "The melancholic thus regresses from narcissistic object choice to narcissism and turns his sadism and hate on himself." (Raskin, 1977 : 18).

Rado (1928) further extended the classical position by elaborating on the role of the superego in depression and emphasising the "precarious self-esteem of the depressive and his craving for external narcissistic supplies." (Mendelson, 1982 : 164). This intense need for narcissistic gratification and dependency on the love and approval of others for self-esteem, is such that even trivial offenses and disappointments lead to an immediate fall in self-esteem. If such an individual loses an object "he hates the object for having left him, tries to compel the object by violent, magical means to make up for this loss" (Fenichel, 1982 ed. : 396). This coercive rage leads to guilt feelings and the superego implements 'self-punishment' to which the ego submits in the hope of obtaining forgiveness (or regaining the object). "The outward manifestations of the ego's attempt to gain forgiveness through contrition and atonement make up the clinical manifestations of depression"

(Arieti & Bemporad, 1980 : 26). Hostility-guilt-atonement (thought by Rado to echo an earlier progression of hunger-rage-drinking at the mother's breast), was seen as the key dynamic in depression.

The Abraham-Freud-Rado formulation of depression thus emphasised oral fixation, narcissism, ambivalence, anger/aggression turned inwards and object loss real, fantasized or symbolic. Depression is considered to be the result of loss of an ambivalently-loved object with consequent guilt, loss of self esteem and anger turned against the self.

2.2.2 Object Relations Theory of Depression

Klein, like Abraham, Freud and Rado, associated depression with orality, ambivalence and regression to an earlier psycho-sexual stage. She deviated from the classical position in postulating a "depressive position" as a part of normal development.

Klein (1936) theorised that at about four or five months of age, the infant who had previously split objects into good and bad part-objects (e.g. Mother seen as "good" breast (nourishing) or "persecutory" breast (withdrawing, frustrating) comes to perceive more and more of the whole person of the mother and of the external world. At the same time, the child's libidinal fixation to the breast, develops into feelings towards her as a person. Thus feelings of both a destructive and loving nature are experienced towards one and the same object. This gives rise to "deep and disturbing conflicts" in the child's mind (Ibid, p.306) because the child comes to realise that the loved object is also the hated one and that real and imaginary external and internal figures are bound up with each other. The ego identifies with the internalised whole good object(s) and is exposed to the fear of "loss of the loved object" because at the same time it becomes aware of its own "incapacity to protect and preserve the object against the internalised persecuting objects and the id." (Ibid, p.285).

The baby experiences this loss of the object over and over again when mother's breast is taken away from it and this reaches its climax during weaning. During this stage "the infant experiences some of the feelings of guilt and remorse, some of the pain which results from the conflict between love and uncontrollable hatred, some of the anxieties of the impending death of the loved internalised and externalised objects - that is to say, to a milder and lesser degree, the sufferings and feelings which we find fully developed in the adult melancholic" (Ibid, p.307).

In Klein's framework then, ambivalence with splitting is a fundamental part of developing relations to objects, with the struggle between love and hate leading to depressive fears lest hating impulses should prove the stronger and the object be destroyed. When love for the real and internalised objects and trust in them (and in the subject's own capacity to love) become established, ambivalence and splitting, in normal development, diminish.

Thus, the "first and fundamental loss of a real loved object, which is experienced through the loss of the breast before and during weaning, will only result in later life in a depressive state if, at this early period of development, the infant has failed to establish its loved object within its ego" (Ibid, p.308)

2.2.3 Ego-analytic Theory of Depression

By the early 1950s questions were being raised about the universal validity of the classical psycho-analytic formulations e.g. were findings derived mainly from a small sample of manic-depressive patients also applicable to other depressive syndromes? (Mendelson, 1982 : 165). Bibring (and Edith Jacobson) proceeded to modify the theory of depression to take into consideration these questions.

While agreeing that depressive illness was essentially an affective state characterised by loss of self-esteem,

Bibring (unlike Rado and Fenichel, 1948) did not see all depression as "attempts at reparation, as despairing efforts to extract the needed "supplies" from external objects or the superego" (Mendelson, 1982 : 166). Rather he saw the depressive's inability to cope with loss of self-esteem as central and proposed (1953) that the basis of depression was "the ego's shocking awareness of its helplessness to realise its aspirations". Depression was "the emotional expression of the state of helplessness and powerlessness of the ego" irrespective of what may have caused the breakdown of the mechanism which established the self-esteem (1953 : 163).. Reparative attempts, when they were present, were a reaction to the loss of self-esteem.

In addition, he did not relate depression exclusively to fixation at the oral stage, because he considered it possible for frustration of "narcissistically significant" aspirations at <u>any</u> of the psycho-sexual stages to bring about a fixation to a state of helplessness and powerlessness. For example he spoke of the wish to be strong, superior, great, secure etc. which he linked to the phallic phase of psychosexual development.

Furthermore he stated (in Mendelson, 1982 : 166) that "depression is not determined by a conflict between the ego on the one hand and the id or superego or the environment on the other, but stems primarily from a tension within the ego itself, from an <u>inner</u>-systemic "conflict". Therefore, not all depressions were characterised by guilt (i.e. by inter-systemic tensions cf. Freud, Rado.)

Bibring thus broadened the understanding of depression by going beyond the theoretical fixation on external narcissistic supplies on the one hand and hate and guilt on the other but perhaps, most importantly he extended the concept of self-esteem in a clinically useful way (Mendelson, 1982 : 167). In addition, his delineation of idiosyncratic areas of vulnerability offers the possibility of predicting future depressions in specific individuals.

2.2.4 Implications for the study of childhood depression

The very question of whether depression can, in fact, exist in childhood has been a controversial issue in psychoanalysis. Some orthodox writers e.g. Rie (1966) and Anthony (1975), insist that children lack an adequate superego (or even a strongly differentiated enough ego) which is necessary for the development of depression.

In addition Schulterbrandt and Raskin (1977 : 18) point out that in the early writings some components of depression tended to be interpreted as regressive phenomena. Hence, it appears that certain stages of psychosexual and ego development must be completed before a child can show full clinical depression.

Thus, while psychoanalytic theory accounts for the fact that the ground may be laid in childhood for future depression, it does not address the issue of depression in childhood per se. For example, although Abraham, Freud and Rado do talk about certain childhood experiences as necessary for the later development of depression, (e.g. unmet narcissistic needs in the maternal relationship), they do not imply that these experiences can be equated with depression in themselves at the childhood stage at which they occur (cf. Spitz-anaclitic depression).

It seems that Bibring's ego-analytic explanation of depression with its focus on self-esteem could have a greater relevance for children in that it suggests specific vulnerabilities relating to the different stages of psychosexual development. For example Bibring refers to the wish to be good, the wish not to be resentful, hostile, defiant etc. which he associates with the anal stage of development (see earlier discussion for example relating to the phallic stage of development). By understanding the psychological importance of particular, fairly well-defined needs at a specific stage of development, we are in a

position to either facilitate their achievement, or where they are frustrated, be alert to the possibility of a future depression in an individual (e.g. in adolescence where earlier developmental crises may be re-enacted.)

Klein's description of a period of "depressive vulnerability" within the process of normal development suggests that she considers infants and children who have not established a "good" internal object to be vulnerable to depression in the same sense that adults are. Her conceptualisation provides a powerful vehicle for the clinical understanding and treatment of depression in children. It also has far-reaching implications for the prevention of depression in children (cf. parent education) and through a child's history may provide a means of predicting a depression and/or understanding its aetiology.

However, Ms Klein has been strongly criticised for, among other things, ignoring the environment (Kernberg, 1960), and focussing exclusively on the "innate unfolding of instinctual processes" (Arieti & Bemporad, 1980). Nonetheless, her visualising of depression as stemming not from particular early disappointments or traumatic experiences (cf. Freud & Abraham) but rather from the very quality of the mother-infant relationship has highlighted the importance of the early months of life, in the genesis of depressive symptomatology.

In spite of the substantial impact of psychoanalytic theory of the understanding of psychopathology it has the serious limitation that its tenets are notoriously difficult to submit to empirical investigation (e.g. how can you empirically define, quantify and verify the notion of an "internalised object"?)

It must be noted however, that some psychoanalytic writers (e.g. Lewis 1986) have suggested approaches which circumvent this difficulty. Lewis (1986 : 326) points up the link between "superego style" (cf. attributional style and field dependence) and depression. She hypothesizes

(1986 : 325) that the affective-cognitive state of shame is prominent in clinical depression. Furthermore, she notes (1986 : 326) Witkin, Lewis and Weil's 1986 finding that there is a significant relationship between field-dependence and shame in a sample of depressed patients. A number of possible research strategies (which may also be relevant to childhood depression) emerge from these considerations.

2.3 Learned helplessness model of depression

Learned helplessness was first described systematically by animal learning researchers e.g. Seligman and Maier (1967), Overmeier and Seligman, 1967 (cited in Seligman and Peterson, 1986). They observed that dogs exposed to inescapable trauma, in the form of unavoidable shocks, became passive and helpless. The helplessness persisted such that on subsequent occasions, even when given the opportunity to do so, they made no attempt either to control the situation or to escape. Furthermore, even when attempts were made to teach them a response that would terminate shocks they continued to exhibit these same motivational, cognitive and emotional deficits. Specifically, they failed to make as many escape attempts as animals who had not been shocked before; failed to learn the response to terminate shock even after several successful escape responses had been made; and showed little emotionality while being shocked, simply sitting and enduring it without whimpering.

The phrase "learned helplessness" was coined by Seligman and his fellow workers to describe and explain these deficits (Maier, Seligman and Solomon (1969), cited in Seligman and Peterson, 1986 : 226). They proposed that because they were shocked regardless of what they did or did not do, the dogs learned that responses and shock termination were unrelated. This learning of "response-outcome independence" was manifested as an expectation of helplessness that was generalised to the subsequent situation, where, though an escape from the aversive stimulus (shock) was readily available, the dogs made no attempt to avoid it. Thus, learned helplessness describes

"a behavioural state characterised by non-emission of adaptive behaviours because one recognises no relationship between one's responses and relief from aversive events." (Akiskal and McKinney, 1975 : 292). Seligman speculated that, like dogs, humans also become passive in situations where they cannot (or believe they cannot) mitigate or control future traumatic events. The fact that learned helplessness is generalised beyond the specific situation in which the individual was originally trained, suggests that it is not only a stimulus-specific, behavioural state, but may well represent an acquired personality trait, the expectation that one's efforts are generally futile.

Seligman suggests in Akiskal and McKinney, 1975 : 292) that the depression-prone individual has a life-long history characterised by relative failure in exercising control over the reinforcers in his environment. He is thus blocked from mastering adaptive techniques to cope with painful situations and learns helplessness instead. Depression supervenes whenever the individual perceives himself to be unable to change negative situations and he is "paralyzed by helplessness, passivity and inability to assert himself." (cf Freud's assumption that this lack of aggression, seen in many depressives, is because it has been retroflexed from the frustrating love object).

In addition the reformulated model of learned helplessness (Abrahamson, Seligman, Teasedale, 1978) postulates that depressives, tend to attribute failure to internal (it's my fault), stable (I'll always be that way), and global* (I'm incompetent) causes, whereas non-depressives are more likely to attribute failure to more external, unstable and specific causes. If such negative attributions are habitual we speak of an "attributional style" that predisposes to depression (cf. Lewis' 1986 work reviewed in section on psychoanalysis).

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*Research with adults (Klugman et al, 1979) further suggests that depressives may attribute good events to external, unstable and specific causes.

Seligman's model has much to recommend it in that it is an empirical hypothesis that lends itself to direct experimental confirmation. However, it seems that Seligman has taken the results of a depressive episode to be its cause. Arieti and Bemporad (1980 : 48) further note that while during a depressive episode the individual may "bemoan his fate, take no initiative on his behalf, appear totally helpless", this may merely reflect the depressive's "characteristic tendency to have others supply meaning and gratification for him" rather than being the result of learned helplessness which assumes no perceived connection between response and reinforcement (1980 : 48).

2.3.1 Implications for the study of childhood depression

Seligman and Peterson (1986 : 227) point out that the important constructs in the original helplessness theory (and its attributional reformulation), viz. contingency learning, expectations, and attributions, can be meaningfully used to explain the behaviour of children as well as adults (e.g. Dureck and Licht's 1980 study of schoolchildren who become "helpless" in the face of failure). They conclude that the theory is general enough to apply to both children and adults and also "uncluttered" enough to allow room for developmental considerations. While they acknowledge that children are different from adults, particularly in the way they think about themselves, they insist that the helplessness theory can apply to individuals at most stages of development (1976 : 224). "Though stage of cognitive development should influence some of the constructs and processes of the helplessness model, it should not preclude them" (1986 : 224). For instance, with reference to the attributional reformulation of helplessness theory (Abrahamson, Seligman and Teasdale, 1978) they say:

> "Children probably use attributions in a more 'egocentric' fashion than do adults, and may offer 'internal' attributions more readily and on the basis of different evidence than do adults. However, regardless of how

> internal attributions arise, the helplessness model proposes that they affect helplessness and depression similarly. Thus the model allows for both differences and similarities across the life span." (1986 : 224)

This orientation has generated research on childhood depression, notably the seminal work of Seligman et al which is cited below.

2.4 Cognitive distortion model of depression

Beck (1967, 1974) formulated a theory of depression that suggested that an altered style of cognition, characterised by negative expectations, was the basis of depressive mood states. Beck's thesis is that "the affective response is determined by the way an individual structures his experience" (Beck, 1967). It is thus an individual's cognitions that determine how he feels and acts.

In depressed individuals cognition is characterised by pervasively negative attitudes towards themselves, the world and the future - what Beck termed the "cognitive triad" of depression.

The key elements of a depressed person's thoughts are:

(1) A concept of themselves as in some way unworthy or to blame for their own or other people's plight (self-reproach, guilt).
(2) A belief that there is nothing they can do to change the situation (helplessness in the face of a life situation felt to be oppressive).
(3) A view that things will not get better in the future (hopelessness)

Associated with this negative triad, and maintaining it, are illogical ways of thinking that permit the depressed person to systematically distort reality such that his negative view of himself and the world is confirmed (Beck,

1967). Beck et al (1979) described seven of these cognitive errors, summarized by Leitenberg, Yost and Carrol-Wilson (1986). These include: Overgeneralization (believing that if a negative outcome occurred in one case, it will occur in any case that is even slightly similar); assuming excessive responsibility or personal causality (seeing oneself as responsible for all bad things, failures and so on; making self-references (believing oneself, especially one's bad performances, to be the centre of everyone's attention); catastrophizing (always thinking of the worst on the premise that it's most likely to happen to one).

The content of depressive cognitions is thus predominantly negative in tone and self-referential in direction; themes of loss and frustration dominate and the individual is preoccupied with self-derogatory and self-blaming thoughts. Linked to the latter is the tendency of depressed individuals to make causal explanations for success and failure which confirm their poor opinion of themselves and their sense of hopelessness (cf. attributional style).

Cognitive distortions are thought to develop gradually and are probably originally rooted in unfavourable life experiences. These eventually create a tendency to overreact to events in a way that exaggerates the negative aspects of life.

The originality of Beck's model lies in his considering disturbances in thinking to be the primary cause of depression (rather than a secondary elaboration) and bringing to attention the role that negative thinking may play in determining depressive mood.

However, Beck's theory is weak in not determining why a loss or disappointment precipitates depression in some people but not in others. Although he accurately describes the cognitive distortions seen during depression, he does not offer a satisfactory explanation of why illogical cognitions leading to a negative view of the self, world and

future, should arise independently of emotional factors. Thus, Arieti and Bemporad (1980 : 46) contend that Beck actually describes the results but not the causes of depression.

The similarities between Beck's theory and learned helplessness as described by Seligman are striking. In particular both identify hopelessness as the central feature of depression. In addition there is the focus on the attributional style of depressed individuals.

2.4.1 Implications for the study of childhood depression

Even though it has certain weaknesses, Beck's theory holds promise for helping to illuminate the psychology of childhood depression. It is basically practical and useful because the cognitive conceptualisation of depression can be relatively easily operationalised and lends itself to empirical verification. This theoretical point of view has been successfully used as a point of departure in empirical studies of adult depression (e.g. Braff and Beck, 1974) and a similar approach can be adopted with children. For example, as Schulterbrandt and Raskin point out (1977 : 23) negative expectations or view of self may be operationally defined in terms of a subject's verbally-stated expectations of success or failure in an experimental task. Since outcomes on a task can be experimentally manipulated, it is easy to pre arrange success or failure experiences. The cognitive theory predicts that depressed patients will exaggerate and overgeneralise. Thus, a failure experience would tend to produce more pervasive negative expectations with respect to subsequent task performance.

Schulterbrandt and Raskin (1977 : 23) note that another potentially important aspect of this theory is that it may be integrated with theories of cognitive development, such as Piaget's. This theory taken together with the cognitive theory of depression could constitute an integrated approach towards an understanding of the psychology of childhood

depression as well as outlining some of its unique properties.

Application of this theory per se to research in childhood depression has just begun (cf. earlier work using the Childrens Depression Inventory (CDI)* to measure childhood depression). An example of recent research is Liebenberg, Yost and Carrol-Wilson's 1986 study which examines Beck et al's (1979) set of cognitive errors (summarised above) in children in a manner similar to that which has been used to investigate these errors in adults.

2.5 Conclusions concerning psychological concepts of depression

In this chapter various conceptualisations have been suggested for depression. From the psychoanalytic point of view, depression has been associated with introjected anger following the loss of an ambivalently-loved object; more recent ego-analytical approaches have focussed on the loss of self-esteem associated with the inability of the ego to achieve narcissistically significant goals; object relations theory has stressed depressive vulnerability in relation to feelings of ambivalence before a 'good' internalised object has been established. The cognitive frame of reference has associated depression with feelings of hopelessness due to negative views of the self, world and future. Learned helplessness has equated depression with the expectation that desired outcomes are of low probability and their occurrence independent of responding.

Although the majority of theories reviewed here have not been directed specifically towards depression in children and some would appear to have little applicability to children they have been used as a starting point, because there is as yet no comprehensive theory of childhood depression. In addition, the application of some of these

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*CDI = Children's Depression Inventory developed by Maria Kovacs (1980/81) from Beck's Depression Inventory (for use with adults).

"adult" theories (e.g. Seligman's learned helplessness theory) to research in childhood depression provides a way of investigating whether children with depressive symptoms share the same characteristics as adults with depressive symptoms. And indeed, although such research is in its infancy it indicates that they do.

However, attempting to link adult theory directly to childhood depression is not a straightforward matter because of the biological and psychological differences between children and adults and because of the "orderly systematic progression which can be observed in the development of children" (Rutter, 1986 : 72). As Rutter (ibid) has noted, it is necessary to take into account how this orderly development may be expected to alter, affect or limit the extension of adult theories of depression to children. It seems likely therefore that the relationship between adult theory and childhood depression will only be fully understood when what is known about adult depression has been integrated into developmental theory.

The research application of adult models to childhood depression appears to be a valuable source of data in the interim.

CHAPTER 3

3.0 PSYCHOBIOLOGICAL FACTORS IN DEPRESSION

3.1 Introduction

As previously noted, the presence of depressive disorders in children as a valid clinical entity has been increasingly recognized in recent years. This recognition has been fostered by the study of several biological factors (e.g. McKnew & Cytryn, 1979; Puig Antich et al, 1984) and by offspring and family studies (e.g. Cytryn, McKnew & Bartko, 1982; Weissman et al, 1984).

In adults it has been demonstrated that affective disorders are accompanied by a variety of biological abnormalities or markers* (both biochemical and endocrine) which are likely to "reflect neuronal, chemical or physiological mechanisms involved in the neuroregulation of normal and pathological mood and affect" (Post and Ballenger, 1984, in Rutter et al, 1986 : 341). Together with the data that suggests an important role for heredity in the adult affective disorders (e.g. Nurnberger & Gershon, 1984) these constitute a powerful argument for a psychobiological approach to affect development.

However, biological changes in childhood depression have been studied by only a few researchers. Recent investigations in children, of psychobiological parameters which have been shown to be characteristically altered in adult major depression (e.g. McKnew et al, 1979; Puig-Antich et al, 1984) have indicated that some of the changes found in adult depressive disorders are also present in childhood depression. Taken as a whole, these findings (together with data from family studies), are thought to

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*"Biological markers are characteristics that have been shown to be specifically associated to the disorder in question, during an episode, during the symptom-free episodes or both. They are likely to reflect mechanisms involved in the pathogenesis of the disease in question. Biological markers are different from chromosomal markers which are associated with the genetic transmission of particular disorders on the basis of chromosomal geography alone." (Puig Antich, 1986, in Rutter et al, 1986 : 342).

indicate that childhood depression may well represent an early onset form of adult depression, sharing common underlying biological factors, as well as genetic predisposition.

In considering these psychobiological factors, we must be aware of the underlying rationale for such an approach. As Rutter has noted (1986 : 341), this viewpoint implies that "every environmental influence is mediated by the brain, including the most subtle psychological interactions that noxious effects can come as much from lack or warping of environmental influences as from the brain's inability to properly encode and interpret them." (Rutter, 1986 : 341). In general, then it presupposes that all psychological output and inner processes of the organism are direct expressions of brain function.

3.2 A biochemical model of depression

While the picture is still far from clear, evidence from biochemical studies strongly suggests depression is related to a disorder of some kind in the synaptic transmitter system in the brain.

Historically, biological studies in adult depression stem from the discovery that certain pharmacological compounds had an effect on the mood of patients for whom they were prescribed. In particular, drugs such as monoamine oxidase inhibitors (MAOIs); tricyclic antidepressants (TCAs); and lithium salts demonstrated major mood-altering properties and led to extensive neurochemical investigation of the range of disorders from depressive illness to mania. On the basis of these investigations, Schildkraut and Kety (1967) developed a biogenic amine theory of affective disorders which "postulated a disturbance in central monoamine neurotransmitter regulations as the basis for major disorders of mood" (Lowe and Cohen, 1983 : 234). The catecholamine hypothesis thus proposed that norepinephrine pathways were involved in mood, with

depression caused by a deficiency in norepinephrine and mania being the result of an overabundance.

However, hypotheses emerging from recent data suggest that revision and reinterpretation of the original theory is indicated. For example Kashani (1981 : 148) points out that it is generally accepted that there is a disorder of catecholamine (norepinephrine) metabolism or disposition in some but not all depressed patients and that this group may be identified biochemically and pharmacologically. In addition it has also been recognized that another group of depressed patients exists in whom noradrenergic systems remain unaltered, although serotonin metabolism may be affected. Thus it appears that there are several biochemically different forms of depression, including one with low catecholamines (e.g. norepinephrine), one with low indoleamines (e.g. seratonin) and perhaps others as well.

A different view is taken by proponents of the so-called "permissive" theory of depression (and mania) e.g. Davis, 1976). They hold that in any affective disease i.e. either mania or depression, a low level of brain serotonin is always maintained. This low level, in association with a low level of brain norepinephrine, causes the depressive form of the illness; conversely, the association with a high level of brain norepinephrine causes the manic form. Thus, according to this "permissive" theory depression is associated with low levels of serotonin as well as low levels of norepinephrine.

It appears then that findings support the hypothesis that an abnormality in monoamine neurotransmitter systems in the brain is related, in some patients, to clinical depression. The relationship between the groups exhibiting abnormalities in norepinephrine and serotonin metabolism awaits further elucidation.

3.2.1 Application to childhood depression

Studies of catecholamines (dopamine, norepinephrine) and indoleamines (Serotonin) in adults, have been carried out in two major ways: (1) by direct (CNS) measurement of the compounds and their metabolites in the cerebro-spinal fluid which requires lumbar puncture and analysis of cerebro-spinal fluid; (2) by analysis of catecholamine metabolites in the peripheral circulation and in the urine, where then are excreted. This latter method is obviously preferable to the former because of the discomfort associated with lumbar punctures and also the difficulty of repeated measurement.*

A major issue in biological studies of children has been one of ethics. While adults can give direct and informed consent for invasive procedures children are not in a position to do so. For this reason the lumbar puncture technique for measuring indoleamines (serotonin) has not been attempted with children and most neurochemical studies of depressed children (e.g. Cytryn & McKnew, 1974; McKnew & Cytryn, 1979) have involved determination of urinary metabolites of catecholamine (e.g. MHPG).

Overall, the findings from Cytryn et al's (1974, 1979) studies suggest that chronically depressed children excrete significantly less MHPG in 24 hours than do normal controls. These results parallel the findings in adults. However, some of the results have been inconsistent, possibly as a result of group compositions being based on different diagnostic criteria. Thus while these findings may provide support for the hypothesized relationship between depression and an abnormality in the monoamine neurotransmitter systems of the brain, conclusions are tentative. Further investigation is necessary before definitive statements can

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*In the study of dopamine and serotonin systems in the brain a peripheral compound reflecting central activity has not yet been identified. Lumbar puncture is thus necessary for the measurement of their metabolites (homovanillic acid (HVA) for the dopamine system and 5-hydroxyindoleacetic acid (5-HIAA) for the serotonin system.

be made about noradrenergic functioning in depressed children.

On perusal of the research literature on childhood (and to a lesser extent, adult) depression, it appears that there is a dearth of biochemical studies per se. This probably results from the fact that there is a substantial overlap between the biochemical and neuroendocrine areas of research and considerable data, bearing on neurotransmitter regulation, can be obtained indirectly from the neuroendocrine studies (see below).

3.3 Neuroendocrine correlates of depression

The last fifteen years or so have seen an upsurge of investigations into the neuroendocrine functioning of depressed adults.

Sachar points out (1982 : 191) that the rationale for this research was based, in part, on the observation that the clinical syndrome of endogenous depression was typically associated with several symptoms which also suggested hypothalamic dysfunction - disturbances in mood, sex drive, sleep, appetite and autonomic activity. Hence, if depression was indeed associated with hypothalamic dysfunction, the possibility arose that neuroendocrine functioning would also be disturbed.

In addition, he notes (1982 : 191) that the same neurotransmitters implicated in the chemical pathology of depressive illness (e.g. noradrenaline, serotonin and acetylcholine) also regulate the secretion of the hypothalamic neuroendocrine cells which control pituitary function. Deficiencies in the functional activity of these neurotransmitters would be expected to be reflected in the hormonal responses they modulate. Conversely, the neuroendocrine approach to research in depression provides a functional system for generating evidence bearing on the hypothesized neurotransmitter abnormalities in these conditions.

Recent research has led to the recognition of impaired neuroendocrine functioning in several endocrine systems in depressed adults. These include (i) the hypothalamic-pituitary-adrenal system; (ii) the growth hormone system; (iii) the leutinising hormone system*; and (iv) the thyroid-stimulating hormone. A comprehensive review of these findings is beyond the scope of this dissertation, but the central issues are touched on below:

(i) The Hypothalamic-Pituitary-Adrenal System

Abnormality of neuroendocrine functioning is indicated by increased plasma cortisol levels, increased cerebro-spinal cortisol and increased 24-hour urinary-free cortisol. In addition depressed adults exhibit non-suppression of plasma cortisol in response to dexamethasone (the dexamethasone suppression test).

(ii) The Growth Hormone System

Evidence for impairment in the growth-hormone (GH) system in depressed adults has come primarily from stimulation tests (e.g. insulin-induced hypoglycaemia) of GH secretion. It has been shown that depressed patients tend to have blunted or absent GH responses to insulin-induced hypoglycaemia (e.g. Carroll 1978). Secretion of GH during sleep has also been studied and adult major depressives have been found to <u>hyper</u>secrete GH during sleep (e.g. Puig-Antich, 1987 : 514).

(iii) The leutinising hormone system

These findings will not be discussed here because they pertain to a specific subgroup of post-menopausal depressed women.

(iv) The Thyroid-Stimulating Hormone

Although levels of thyroid hormone itself appear to be normal in depressed patients, a subgroup of adult endogenous depressives exhibits abnormally low levels of thyroid stimulating hormone (TSH) which is produced

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*These findings will not be discussed here because they pertain to a specific subgroup of post-menopausal depressed women who have been found to have significantly reduced LH levels compared with age-matched non-depressed post-menopausal women (Lowe and Cohen, p.232)

by the pituitary in response to hypothalamic thyrotropin-releasing hormone (TRH).

Studies of neuroendocrine mechanisms in adult depressive disorders "have thus led to the recognition of several subgroups of patients exhibiting defects in neuroendocrine responsiveness both in baseline levels and in dynamic stimulation testing." (Lowe and Cohen, 1983: 234)

Electroencephalogram Sleep

Electroencephalogram (EEG) sleep correlates have also been studied in adult depressives. The evidence from these studies for polysomnographic markers occurring during the episode of major depressive disorder in adults is very strong. It has been repeatedly confirmed that adult primary major depressives present decreased first REM period latency (Vogel, Vogel & McAbee, 1980*); decreased slow wave sleep time (Coble, Kupfer et al, 1980*); increased REM density (Vogel, Vogel & McAbee, 1980*); decreased sleep efficiency (Gillin, Duncan et al, 1979); and abnormal temporal distribution of REM throughout the night.

3.3.1 Application to childhood depression

Neuroendocrine techniques have been used with depressed children in an attempt to (1) replicate studies which have been carried out in the adult depressed population, (2) define the central nervous system endocrine functioning in such children. Puig-Antich et al (1979, 1984, 1987), probably the most prominent researchers in neuroendocrine studies of childhood depression, have concentrated on growth hormone and cortisol studies in prepubertal children with major depression (endogenous type). Their findings, together with those relating to encephalogram (EEG) sleep, are reviewed below.

*Cited in Puig Antich, 1987 : 510.

Growth hormone secretion

Puig-Antich et al (1984) found that endogenously depressed prepubertal children hyposecrete GH in response to insulin-induced hypoglycaemia as measured by an insulin tolerance test (ITT), when compared to non-endogenous depressive children and non-depressed psychiatric controls. They also found (1986) that the same subgroup of prepubertal children hypersecrete GH during sleep. Both of these findings are similar to those in adults but are more pronounced in prepubertal children.

Growth hormone research with children has also been attempted with children suffering from psychoendocrine growth disturbance (psychosocial dwarfism) as this was seen to be an homogenous group of children exhibiting depressive symptomatology (e.g. depressed mood, social withdrawal, developmental delay) and possible disturbances in neuroendocrine and neurochemical functioning. Results indicated impaired growth hormone response to hypoglycaemia and a defect in adrenocorticotrophic function (Genel, Cohen et al, 1976, Puig-Antich, 1982, Cohen et al, 1983, 1984.)

These neuroendocrine findings are consistent with areas of dysfunction in adult depressed patients. However, it is important to note that the sleep and growth disorders as well as the GH hyporesponse exhibited by children with psychosocial dwarfism, quickly reverse when they are placed outside the home, be it in a hospital or residential centre (Puig-Antich, 1982 : 293). In contrast, preliminary data indicate that the endogenous group continue to hyposecrete GH in response to hypoglycaemia months after clinical recovery while in a non-depressed state.

Cortisol Secretion

(i) 24 hour plasma levels

In his (1987) review of the cortisol secretion research with prepubertal children, Puig-Antich reports that his group has found cortisol hypersecretion only occasionally when the circadian cortisol patterns of

prepubertal children during a major depressive episode were compared with their own patterns after recovery. Nor did they find any differences in 24-hour cortisol secretion (AUC) when children with major depression were compared with non-depressed psychiatric and normal control children

Although at variance with the findings among adult endogenous depressives, the findings in children are quite consistent with the influence of age on cortisol hypersecretion in adult endogenous major depressives. Namely, the older the patient the more likely he or she is to hypersecrete cortisol (Pfohl et al, 1985a, 1985b, cited in Puig-Antich, 1987 : 517.) Thus age effects are thought to be responsible for the substantially low rate of spontaneous cortisol hypersecretors in prepubertal endogenous depressives compared to older adults with the same diagnosis.

(ii) Dexamethasone suppression test in prepubertal depression

Attempts to demonstrate the dexamethasone suppression test in depressed children have provided contradictory results to date and will therefore not be detailed here.

Encephalogram (EEG) sleep

None of the classical EEG sleep correlates have been found in children during the depressive episode. Puig-Antich (1987 : 510) argues that these negative findings rather than indicating fundamental differences between childhood and adult depression are simply secondary to maturational differences between adults and children On the other hand, rapid eye movement (REM) latency was significantly shortened and measures of sleep continuity had significantly improved in the fully-recovered drug-free state. This presence of shortened REM latency in the recovered state raises the possibility of it being a trait marker for prepubertal major depression (Puig-Antich, 1987 : 510).

3.3.2 Conclusion

There is a substantial body of research into the biological correlates of depression in adults (e.g. Sachar, 1982; Zis & Goodwin, 1982) and equivalent data is accumulating for children (e.g. Cytryn & McKnew, 1979; Kovacs, 1984; Puig-Antich, 1982, 1984, 1987). While the findings from biochemical and neuroendocrine investigations of childhood depression are not concurrent in every respect with those of adult research, they provide irrefutable evidence of a strong trend for episodes of childhood depression to be accompanied by many (if not most) of the biological changes found in adult depression. Differences, where they do exist (e.g. sleep EEG, cortisol secretion findings) are thought to be the result of age effects, rather than indicating intrinsic differences between adult and childhood depression. Also, on the other hand, certain findings, similar in the two groups, are more exaggerated in the prepubertal group (e.g. GH hypersecretion in sleep). Taken as a whole, biological studies of childhood depression so far, tend to validate both the existence of prepubertal major depression and its similarity to adult major depression. Moreover, where there are differences, these may throw light on some of the questions regarding different ages of onset. (See also genetic findings in the following section).

Unfortunately, as Rutter points out (1986 : 342), so far the biological correlates of depression (in both children and adults) have only moderate sensitivity and specificity. Moreover, most represent markers of state rather than trait (i.e. they are abnormal during the depressive episode but return to normal after recovery.) What is also not clear is whether these biological abnormalities precipitate episodes or merely accompany them.

Nonetheless, future research in the psychobiology of major depressive disorders in children (and adolescents) by furthering the understanding of which psychobiological markers are intrinsic to depressive disorders, holds out

promise for the development of refined diagnostic and treatment guidelines for these disorders in children.

3.4 Genetic Factors in Depression

3.4.1 Introduction

The idea of genetic differences in the emotional vulnerabilities of individuals has been accepted with reluctance among mental health professionals. One reason for resisting this idea may be the fear thet it will induce "therapeutic nihilism and promote stigmatisation of the victims of illness" (Gershon, 1980 : 25). However, our focus should be, as Gershon (1976, 1980, 1982) has suggested, on the valuable and useful implications of current genetic knowledge for the "characterization, treatment and prevention of these disorders."

Genetic methods of investigation in clinical psychiatry include family studies, adoption studies, twin studies, high risk longitudinal studies and linkage and market studies. Suffice to note that the value of family studies is that they can provide prevalence rates for different psychiatric disorders in close family members of probands (patients) with a specified type of psychiatric disorder (e.g. depression). The greatest strength of adoption and twin studies is that they make it possible to distinguish between environmental and genetic factors.

In the following sections I will briefly review the evidence (arising from these studies) that genetic factors are of crucial importance in determining vulnerability to major affective disorder in both adults and children.

3.4.2 Summary of findings of genetic studies of depression in adults

Family history studies and direct family studies of adults with major depressive disorders have provided much information. First it is clear that depressive disorder is familial; i.e. there is a greatly increased risk of depression and related disorders (e.g. mania, alcoholism,

suicide) in close relatives of those with the disorder (both bipolar and unipolar) compared with population prevalence (Nurnberger and Gershon, 1982). There are more likely to be two generations with affective disorder, where individuals have bipolar illness (Cantwell, 1983 : 252). Also, in general, bipolar probands have both bipolar and unipolar relatives whereas unipolar probands generally show a high rate of unipolar but not bipolar illness in first degree relatives (Weissman et al, 1984).

Further evidence favouring genetic transmission comes from twin studies. The consistent finding (reviewed by Gershon, 1982 : 25) that approximately 65% of monozygotic (MZ)* twins will be concordant for major depressive disorder, versus 14% concordance in dizygotic (DZ)+ twins, implies that genetic vulnerability is playing a major role. In addition DZ : MZ ratios for concordance in twins have been found to be higher for bipolar illness than for unipolar depression (Bertelsen, 1977, 1979, reported in Nurnberger and Gershon, 1982 : 126) which suggests that bipolar illness has a higher "genetic loading" than unipolar illness.

There are only two fully reported adoption studies of affective illness in the literature (Mendlewicz and Rainer, 1977; Cadoret, 1978). These studies have demonstrated an increased prevalence rate for depression in adoptees whose biologic parents had a major affective disorder. In addition Mendlewicz and Rainer found that the rate of affective disorders in the biological parents of bipolar adoptees was significantly in excess of that found in the adoptive parents of the same bipolar probands.

In the light of the above, the evidence is therefore strong that in primary affective disorders in adults there are genetic factors playing a role. While no exact model of genetic transmission has been determined, some linkage studies of bipolar affective disorder have suggested an X-

*Monozygotic = identical
+Dizygotic = fraternal

linked mode of transmission. Polygenic models and autosomal dominant models (Baron et al, 1981) have also been postulated as mechanisms of inheritance.

3.4.3 The genetic study of childhood depression and its implications

Familial aggregation studies have been used to determine if children and adults with affective disorders cluster in the same families. There are 2 main designs: those that examine the offspring under 18 years of age of adult patients with unipolar or bipolar major affective disorders ("from the top down" studies) and those that ascertain lifetime psychiatric diagnoses of first and second-degree relatives of children (and adolescents) diagnosed as having bipolar or nonbipolar major depressive disorders ("from the bottom up" studies) (Puig-Antich, 1987 : 507).

In addition to providing strong evidence that children and adults with affective disorders do cluster in the same families (e.g. Gershon, 1980; Cytryn, McKnew et al, 1982) these studies have illuminated certain factors which appear to be related to the age of onset of an affective disorder.

For example, there appears to be an inverse relationship between age of onset of the depression and familial morbidity risks. That is to say the earlier the onset of major depression in the children studied, the greater the morbidity risk of first degree biologic relatives. Moreover, the morbidity has been shown to be highest for relatives of bipolar probands (e.g. Gershon et al, 1982, Puig-Antich et al, 1987).

Studies of child and adolescent offspring of adult probands (Weisman et al, 1984; Welner, 1984, cited in Puig-Antich, 1987 : 508) indicate that for offspring under age 18 years the morbidity risk when only one parent has suffered from a major affective disorder is approximately double that for offspring with neither parent affected. The risk

quadruples for the offspring of dually affected parental matings.

Taken as a whole then, the family study data* indicates that child onset, adolescent onset and adult onset affective disorders tend to cluster in the same families, and familial aggregation for affective illness is greatest when the disorder begins in the first half of the lifespan. These findings strongly support the hypothesis that genetic inheritance plays an important role in the familial transmission of affective disease. It also appears that early onset affective disorders may represent the most genetically determined form of the illness.

Further support for this idea is provided by findings from follow-up studies of prepubertal onset and adolescent onset affective illness (e.g. Kovacs, 1985; Strober & Carlson, 1982). What is especially striking about this follow-up data is the rate of subsequent bipolarity in these children (37% after 6 years in Kovacs' study, 20% after one to four years in Strober and Carlson's study, showed a bipolar outcome.) This rate is substantially higher than in adult patients and is consistent with the hypothesis that there is an inverse correlation between age of onset of affective illness and strength of genetic loading. The implication that earlier onset, more highly genetically loaded disorders may have more serious sequelae is borne out by the relatively high rate of depressive psychosis amongst prepubertal children with major depressive disorder (present in up to one-third of these children - Puig-Antich, 1987 : 529.)

It is now also apparent that the previously commonly-held belief that depressive clinical pictures in children were transient, is false. Kovacs et al (1985) have demonstrated the chronicity of prepubertal dysthymia with and without major depression and the continuity into adolescence of prepubertal depressive disorders. The

*For a critical evaluation of methodology of family studies of affective disorders in childhood, see Rutter, 1986 : 171.

crucial study of continuity across age, which awaits completion (Kovacs et al, in progress), is the follow up of depressed prepubertal children into adulthood. However, available evidence indicates that affective disorders of early onset are in a continuum with those of later onset.

The data presented above strongly suggest a major role for genetic inheritance in affective disorders. However the family studies could be criticised for the fact that all the subjects were children who were raised by their biological parents* and it could be claimed therefore, that there was an environmental effect operating as well as a genetic one. The fact that identical twins do not have a 100% concordance rate for affective illness also suggests a role for nongenetic factors, but the studies that have investigated the role of nongenetic factors in affective disorders in chidren have thus far found primarily negative results (Puig-Antich, 1987 : 508). Thus, there is little evidence that marital status of the parent, size of the sibship, socioeconomic status, parental separation, divorce or marital functioning, and familial constellation or structure play much of a role in the causation of depressive disorders in children and adolescents (Puig-Antich, 1987 : 508).

On the other hand certain studies (e.g. Weissman et al, 1972; Anthony, 1975) have focussed on the deleterious effects of parental pathology on children (e.g. parents more negative towards their children, disorganisation, tension, lack of effectiveness, etc.) It seems apparent that the frequency of disturbances in children reared in such an environment would be difficult to explain on a genetic basis alone (Cytryn, McKnew et al, 1984 : 221). However, these findings are not clear cut and most studies of environmental factors contributing to the development of affective illness have been poorly designed (e.g. anecdotal evidence relying on memories of adult patients.)

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*To date, adoption studies have not yet been attempted with depressed children.

Thus while an apparently strong genetic contribution to the development of early affective illness can be demonstrated, it seems clear that it is still premature to come to any conclusions regarding the interplay and mechanisms of environmental and genetic factors in the familial transmission of very early onset affective illness.

3.5 Conclusion

As we have seen, there is strong, converging evidence from familial aggregation studies, follow-up studies and psychobiologic studies that very early onset affective illness is likely to be characterised by: unusually high pedigree loading for affective illness (i.e. have a greater genetic component than later onset illness); a tendency to chronicity (dysthymia); frequent bipolar outcomes in later years (as well as a relatively high rate of depressive psychosis and frequent suicidality) (Puig-Antich, 1987 : 506). Thus, in contrast to earlier pictures of childhood depression as transient, reactionary, etc., it now appears that early onset depressive illness (with its greater genetic component) may lead to the most serious forms of the illness.

As Puig-Antich (1987) has stressed, this conclusion is critical to the proper interpretation of the psychobiologic data. Consider for example that some biological changes in prepubertal children suffering from depression have been found to be <u>more</u> pronounced than they are in depressed adults.

The importance of psychobiologic studies of childhood depression lies particularly in the hope that they will isolate precursor signs of the illness. Puig-Antich (1987 : 510) suggests, for example, the possibility that biological markers might reflect genetic expression of the illness much earlier than the development of its clinical expression. The implications arising from the genetic study of childhood depression are vast (e.g. the possibility of tests of genetic vulnerability; genetic counselling; preventative

treatment etc). However, until we have a specific test of genetic vulnerability* and the mode of transmission of affective disorders is well understood, we cannot fully explore the possibilities of prevention which have been suggested.

The "developmental cost" (e.g. poor school adjustment, skewed personality development) associated with depressive and other psychiatric illness in childhood is well acknowledged. Our need for concern in the case of childhood depression is further underscored by the emerging evidence that early onset depressive illness may lead to the most serious forms of the disorder, and the evidence that these conditions are more persistent than hitherto thought.

It thus seems a matter of urgent concern, to pursue the search for a biological marker of genetic vulnerability but no less so, in the interim, to also focus on other ways of effective and early identification and intervention (while being aware of possible psychobiological (e.g. genetic) contributions to childhood depression).

*e.g. have identified a biological marker of genetic vulnerability.

CHAPTER 4

4.0 THE DEFINITION AND DIAGNOSIS OF CHILDHOOD DEPRESSION

4.1 Definitional and conceptual issues

The study of depression in both adults and children has been hampered by a lack of precision in terminology. The term "depression" has both vernacular and psychiatric meanings, and even when used in a purely psychiatric sense, it can have several different meanings.

In their 1988 paper on the diagnosis of depression Nurcombe, Seifer, Scioli, Tramontana, Grapentine & Beauchesne note five different ways in which the term is customarily used:

1. To refer to an <u>affect</u> (e.g. "When you insulted me, I felt depressed or <u>mood</u> (e.g. "He looked depressed all day".)
2. To label a <u>dynamic</u> (e.g. "The patient has unresolved depression following the loss of his mother.")
3. To identify a <u>syndrome</u> or constellation of symptoms which regularly occur together (e.g. a combination of sadness, self-depreciation, suicidal ideation, insomnia, weight loss, etc.)
4. To denominate a <u>disorder</u> which reliably categorizes a qualitatively distinct group of individuals (i.e. there is a characteristic clinical picture, a characteristic natural history, a characteristic response to treatment.)
5. To designate a <u>disease</u>, that is, a categorical disorder which has reliable pathochemical pathophysiological, pathoanatomic or genetic correlates, and a substantial biophysical etiology.

This profusion of meanings which can attach to the term "depression", together with the fact that it has routinely been used in the literature (particularly on childhood depression) in different ways, and usually without any clear

definition being given, has led to imprecision and confusion. In the case of childhood depression this lack of clarity about the terminology reflects not only the semantic ambiguity of the word "depression" but also the controversy surrounding the conceptualisation and diagnosis of childhood depression.

In adult psychiatry, the concept of depression both as a syndrome and a disorder is well-accepted and several depressive disorders (e.g. Major Depressive Disorder, Dysthymia, Manic-Depressive Disorder) have been delineated on the basis of differing clinical pictures. These disorders have been shown to differ, not only in clinical picture, but also "in natural history, response to pharmacological treatment, family history of mental illness, and biochemical and neurophysiological characteristics." (Cantwell 1983, Rutter 1986, Puig-Antich 1987).

Nonetheless, even as regards adult depression, some controversies remain. These revolve around the limits of the concept of affective disorders; (e.g. where to draw the boundaries of depression especially with respect to shizoaffective disorder, conditions with predominant anxiety and minor but chronic mood disturbances) (Rutter, 1986 : 499), and the methods of subclassifying affective disorders (Andreasen 1982, Cantwell and Carlson 1983).

While the presence of depressive <u>symptoms</u> in prepubertal children is well accepted, controversy remains around attempts to delineate a <u>syndrome</u> of depression in children. With the study of any psychiatric syndrome (in children or in adults) the starting point must be the delineation of the core clinical picture, for as Reynolds points out (1984 : 175) the descriptive criteria for diagnosis are what defines a psychopathology. And indeed, the major research issue in the study of childhood depression has been finding the appropriate diagnositc criteria for identifying the disorder in children. Central to this issue, has been the question of whether or not depression in children is the same as in adults. The

crucial question has been : what should the operational criteria be for diagnosis of depression in childhood? Should they be modified adult criteria? Or should the criteria be specifically designed for use with children?

4.2 Diagnosis of Childhood Depression

4.2.1 The search for a model

A fundamental problem in attempts to define a syndrome of childhood depression has been the existence of two competing conceptual models; the developmental model and the adult (clinical) model. At issue is whether a model of childhood depression should take account of developmental considerations and thus look for a condition or phenomenon unique to childhood with its own signs, symptoms and diagnostic criteria, or whether, on the other hand, progress will best be served by using a model which incorporates the established group of affective, cognitive, motivational and vaso-vegetative signs that have become definitive of adult depression (Philips and Friedlander, 1982 : 265).

Essentially, then, there have been two approaches. One has been to use adult criteria, essentially unmodified, in the diagnosis of children (e.g. the RDC,(Spitzer et al, 1978) and more recently, DSM-111 (1980) and now DSM-111-R (1987)) (see following discussion). This approach assumes that the essential features are the same in children and adults. There may be "age-specific" associated features that differ in infants, children and adolescents, however, these are not part of the diagnostic criteria.

An alternative approach has been to modify the criteria for childhood depression so that the <u>essential</u> features, (rather than the associated features), are different from those required for the diagnosis of adult depression (e.g. Ling et al 1971, Weinberg 1973*, Petti 1978, Poznanski 1981.)* Attempts to develop a consistent definition of a

*A Table showing the RDC and DSM-111 diagnostic criteria and Weinberg and Poznanski's criteria for Childhood Depression is presented in Appendix A.

syndrome of childhood depression from this perspective have been complicated by the necessity of considering the impact on clinical phenomenology of developmental changes in the growing child.

Despite the many sets of diagnostic criteria for children which have been suggested and used in various studies in the literature, none has achieved universal acceptance. The demonstration that a group of children can be identified (using DSM-111) who fully meet the adult diagnostic criteria for major depressive disorders (Puig-Antich, 1978; Cytryn et al, 1980) has prompted these (and other) prominent researchers in the field to recommend the universal acceptance and use of the DSM-111 (now 111-R) criteria for major affective disorders in adults to establish the same diagnosis in children. In addition, the lack of a standardised, agreed-upon set of diagnostic criteria specifically for defining childhood depression; the complexity of the developmental model and the paucity of solid data about the developmental changes in the manifestation of depression, have also contributed to the current tendency to opt for the adult model.

4.2.2 The use of DSM-111 and DSM-111-R with children*

Perhaps contributing most significantly of all to the preferred status of the adult model of depression in children has been the existence of DSM-111 (APA, 1980).

The approach of DSM-111 was that the criteria with regard to the essential features of a major depressive disorder were identical for children, adolescents and adults. Thus, it was decided there would be no separate category of childhood depression with different clinical criteria. Significantly, DSM-111 barely acknowledges the

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*While RDC and DSM-111(-R) criteria are extremely similar, and both have been used with children, I have chosen to discuss DSM-111 and 111-R because RDC is aligned primarily with research utilisation, while DSM-111 and 111-R tend to be more specific to clinical practice (and therefore more general.)

potential role of developmental variables - the only example it offers of differences in "age-specific associated features" in the prepubertal child is separation anxiety. DSM-111 also states "In a child with a depressive syndrome, there may not be complaints of any dysphoric mood, but its existence may be inferred from a persistently sad facial expression (American Psychiatric Association, 1980 : 210).

In the DSM-111-R (American Psychiatric Association 1987) the diagnostic criteria for children (and adolescents) for major Depressive Episode differ from those for adults in two of the nine symptoms that are given as indicative of depression (Table 1). Symptom 1, the depressed mood that must be present most of the day, nearly every day for at least 2 weeks in adults, may be an irritable mood in children and adolescents rather than a depressed mood. Symptom 3, significant weight gain or loss may be reflected in children as a failure to make expected weight gains. (However as Kaplan and Sadock point out (1988 : 48) the amount of weight that most children would be expected to gain over a two-week period is too insignificant to measure accurately in most cases. Thus, in clinical practice this would only be a useful diagnostic criterion in depressions of longer duration).

Under "age-specific associated features", DSM-111-R notes that in prepubertal children with a major depressive episode, somatic complaints, psychomotor agitation, and mood-congruent hallucinations (usually only a single voice talking to the child) are particularly frequent. It also notes that separation anxiety and overanxious and avoidant disorders commonly co-exist with a major depressive episode.

Table 1
Diagnostic Criteria for Major Depressive Episode and Dysthymia (DSM-III-R*)

Diagnostic criteria for major depressive episode include a loss of interest or pleasure in all or almost all usual activities and the presence of at least five of the following symptoms nearly every day for at least 2 weeks.

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

Diagnostic criteria for dysthymia include depressed mood (or can be irritable mood in children and adolescents) for most of the day or most days and the presence of at least two of the following symptoms:

1. poor appetite or overeating
2. insomnia or hypersomnia
3. low energy or fatigue
4. low self-esteem
5. poor concentration, or difficulty making decisions
6. feelings of hopelessness.

The symptoms are not as severe as in a major depressive episode, and the depressive syndrome may be relatively persistent or separated by a period of normal mood lasting up to several weeks at a time. The depressive syndrome must have a 2-year history (or 1 year for children and adolescents).

*(American Psychiatric Association, 1987 : 232)

As regards Dysthymia, DSM-111-R notes that the boundaries of dysthymia with major depression are particularly unclear in children (and adolescents). There are two significant differences in the diagnostic criteria for dysthymia for children and adolescents and those for adults. (Table 1) Children and adolescents may exhibit an irritable mood instead of or in addition to the depressed mood required for adults. and the mood disturbance in children and adolescents needs to be present for only one rather than two years. DSM-111-R also directs that "early onset be specified for children and adolescents.

The more substantial recognition by the DSM-111-R of possibly different associated features in children and adolescents of different ages who have the same essential features of a major depressive disorder seems to represent an attempt at a compromise between the adult and developmental models.

4.2.3 Some issues in the use of adult criteria with children

The use of adult criteria with children has the advantage that there is a standardised, much-tested set of adult diagnostic criteria (e.g. DSM-111-R). It therefore provides the means for selecting an homogenous group of depressed children thereby allowing investigators in the field to use a single common language and thus increasing the chances of replicating results across studies. (Rutter, 1988 : 345). In addition as Philips and Friedlander point out the adult model has the advantage of addressing phenomena that are known and with which we have some experience. Nonetheless there are several problems with this approach.

Expectably, the most vociferous criticism of the search for symptomatic isomorphism in depressed adults and children has come from developmental psychopatholgists who argue that adult-based diagnostic criteria do not take account of possible "age-related differences in the defining attributes or in the manifest expression of the syndrome" (Garber 1984,

Kovacs 1986). For example it appears that there are developmental changes in children's concepts of emotions and in their ability to express affect (cf. studies of the developmental progression of depression in children e.g. Garber 1984, Kovacs and Paulaskas 1984, Carlson and Garber 1986). Philips and Friedlander (1982 : 268) stress the risk of underdiagnosis* where there is a failure to take account of developmental variables e.g. how the child's age-related cognitive capacities determine the specific means of self-expression. And more sweepingly, they note the "failure of adult diagnostic schemes to take account of the wide range of variables encompassed by the notion of developmental phases or to set the data in the appropriate developmental context." (e.g. to consider adaptation/maladaptation in the context of successful/unsuccessful navigation of phase-specific developmental tasks.) Thus, by looking only for adult-type symptoms in children we may be missing other children, who, while not manifesting depression in the adult way, may equally well be depressed.

A further criticism of the (adult) symptom-oriented approach is that it does not consider <u>normal</u> development. It is convincingly argued that we need to understand normal affect development in order to recognize and assess deviation from expected patterns (at each age level)(Poznanski 1982, Garber 1984).

While the search for symptomatic identity between children and adults has certainly not been futile it is generally acknowledged that it is insufficient and that we need to expand our current systems to go beyond mere symptom description (e.g. Rutter 1986, Puig-Antich 1987, Nurcombe et al, 1988). For example although it is clear that adult-like depressive disorders do occur in childhood, it is also clear that there are major changes with age in the style of affective expression as well as age differences in the occurrence of depressive conditions.

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*On the other hand the primary diagnostic risk with the developmental model, as some have advanced it, is the possibility of overdiagnosis.

However, the meaning of these age differences is not clear. Also, there has been very little empirical testing of developmental hypotheses relating to depression, and it is evident that we are some distance from an adequate understanding of the developmental processes that are involved. It is likely, therefore, that until this information is at hand, the DSM-111-R will continue to be used as the best way of bridging the divide between the clinical and developmental approaches.

4.3 Differential Diagnosis

A depressed affect may be present in a variety of psychiatric illnesses other than depression. The need thus exists for a primary depressive disorder to be distinguished from psychiatric and other conditions which may have a dysphoric component. Poznanski (1982 : 315) notes the following more commonly confused conditions.

Adjustment Disorder with Depressed Mood

The crucial factor in the differential diagnosis between the adjustment reaction and a primary diagnosis of depression is the presence or absence of the symptomatology required by the diagnostic criteria for childhood depression (e.g. DSM-111-R). In addition, if removal of the stressful agent does not change the child's behaviour this points to depression. Poznanski (1982 : 316) notes that since there are multiple life stresses in all children who come to a psychiatric clinic, whether depressed or not, the severity of the psychosocial stresser itself is rarely helpful in distinguishing an adjustment disorder from depression.

Grief Reaction

Loss of a parent, sibling or other important person can precipitate a grief reaction in a child. If the reaction endures it may become a depression. The line between grief and depression is not always easy to draw even in adults. Of importance here is the fact that low self-esteem occurs in depression and is absent in grief.

Poznanski (1982 : 316) notes that despite the difference between a grief reaction and depression in children, they often date the onset of their depression back to the time when an important other died. Some of them, when asked to draw a picture of the family will include the dead member in the drawing. Poznanski notes that she has never seen this behaviour in a non-depressed child.

Separation Anxiety Disorder

Children with a Separation Anxiety Disorder may appear to be depressed when they are away from their parents, particularly the mother. It is thus important for the clinician to observe a child in question both with and without the parent and note whether the parent's presence relieves all or just part of the child's depressive affect.

Learning Disabilities

It can be difficult with some young children to determine whether the child's learning disabilities have precipitated a secondary depression or whether a primary depression has impaired learning at school. This is particularly so when the learning problems are long-standing.

A psychoeducational evaluation which assesses the individual's intellectual potential, current levels of academic skills and perceptual abilities and makes observations about attention, concentration and learning style should help clarify the appropriate diagnosis and intervention strategy.

Learning problems secondary to depression, even when long-standing, correct themselves rapidly after recovery from the depressive episode (without any specific remedial education).

Psychosis with Depressive Affect

As Poznanski (1982) points out a psychotic child with depressive affect presents a difficult diagnostic problem since psychosis with depressive features may be caused in children by one or more of several conditions: (1) a reaction to severe stress e.g. physical abuse; (2) a reaction to prescription or street drugs; (3) childhood schizophrenia; (4) an early expression of manic-depressive illness; or (5) a psychotic depression with mood-congruent auditory hallucinations and delusions. A careful history is of the utmost importance here; the distinction must then be made between psychotic features and fantasies that are developmentally appropriate. The next step is to assess whether the child's hallucinations and delusions are mood-congruent or incongruent. It is unlikely the child is suffering from a psychotic depression if these are thematically consistent with the depressed mood, occur within the depressive episode and do not include such types of hallucinations as conversing voices or a commenting voice which are more specific to schizophrenia.

Physical Illness with Dysphoric Mood

Diagnosing children who have a physical illness with dysphoric mood requires that the distinction be made between the apathy associated with physical illness and a truly depressive affect. As Poznanski (1982 : 306) notes, the apathy and fatigue of the medically ill child have a different flavour from the depressive mood of the child with primary depressive disorder. Where there has been difficulty establishing a medical diagnosis physicians may be eager for a psychiatric diagnosis. However, the diagnosis of depression should be made only on the basis of the clinical characteristics of depression, not as a diagnosis of last resort because all medical tests have proved negative. The possibility that depression may be secondary to a physical illness, sometimes an unusual one, e.g. Crohn's disease, Schitter's disease or Leukemia, must be borne in mind.

Conduct-disordered behaviour

Kaplan and Sadock (1988 : 484) note that in addition to anxiety symptoms, conduct-disordered behaviours can coexist with depression and frequently can pose problems in differentiating these cases from non-depressed emotional and conduct disorders. Cytryn and McKnew (1980 : 449) have noted the difference between the behaviour problems of children who are simply depressed and those with both depressive and behaviour disorders. In children with depression, behaviour problems were seen as less severe and postdated the onset of depressive symptoms. In children with both diagnoses and in children with behaviour disorders alone, the behaviour problems were chronic and of greater magnitude.

The difficulty making the distinction between agitated depression or mania and attention-deficit hyperactivity disorder, must also be noted. (This is discussed in Chapter 6.)

CHAPTER 5

5.0 THE ASSESSMENT OF CHILDHOOD DEPRESSION

5.1 Historical Background

In contrast to adult psychiatric assessment, child psychiatric assessment has not traditionally focussed primarily on symptoms. Rather, it has relied on two main sources of diagnostic information : (1) data on the child's developmental history, familial functioning, behaviour and school functioning provided by parents and teachers; and (2) the play "interview" with the child. Indirect sources were used because the preadolescent child was believed to be cognitively incapable of providing detailed information on psychopathological symptoms (Chambers et al, 1985 : 696). Information acquired directly from the child came mainly through observations of manifest behaviour or fantasy during play. Direct questioning was de-emphasized and systematic symptom assessment was absent.

Historically, this approach was fostered by the psychodynamic-psychoanalytic "unitary view of mental illness" in children which disregarded classification systems and emphasized degree of severity of the clinical picture (Puig-Antich, 1983). Unconscious mental conflict was seen as the root of mental disorders and the clinician was interested in assessing worries, preoccupations and psychic conflict with symptoms being regarded as ephemeral, surface manifestations which would disappear with treatment.

However, the 1960's and 70's saw the development of other more pragmatic models of child psychiatric disorder. Puig-Antich, Chambers and Tabrizi (1983 : 158) consider that the evidence supporting such models came from findings in three main research areas: behaviour therapy, epidemiology, and paediatric psychopharmacology. It is their opinion that the major shifts in both assessment methods and classification systems stem directly from the findings in these three areas:

Behaviour therapy shifted the focus from unconscious intrapsychic phenomena to careful description and indentification of strictly defined single behaviours which could be reliably assessed.

The Isle of Wight epidemiological study (Rutter et al, 1970) was one of the first child psychiatric studies to use well defined diagnostic categories and standardised structured interviews with the child himself. A major advance was made when Rutter and Graham (1968), as part of this study demonstrated the fact that ten-year-olds can be reliably interviewed and that the information obtained is not only reliable, but also valid.

Paediatric Psychopharmacology in the late 60's and 70's demonstrated the effectiveness of certain drugs in the treatment of child psychiatric disorder (e.g. stimulant drugs in the treatment of attention deficit disorder with hyperactivity (Gittelman-Klein, 1975). The need for reliable rating scales (i.e. which focus on strictly defined individual behaviour) to properly diagnose, and to measure stimulant drug effects in this disorder, led to the development of the Conner's Parent and Teacher Questionnaires (Conners, 1969), the Behaviour Checklist (Quay, 1977) and others.

These developments (and other similar ones), together with the recognition that prepubertal depression could be diagnosed using exactly the same criteria as for adult depression (Puig-Antich et al, 1978, Cantwell and Carlson, 1980, etc) resulted in a greater focus on symptoms. In addition the view that the most crucial symptoms of depression are "inner"* symptoms which may completely escape observation by others and therefore can only be accurately reported by the child served to highlight the diagnostic importance of the interview with the child (Carlson and Cantwell 1982; Poznanski 1982; Puig-Antich et al 1983,

*i.e. are manifested mostly intrapsychically and reflect subjective phenomena (emotions, feelings, ideas) (Puig-Antich, 1983 : 162).

1985; Kovacs 1983, 1986). Thus most clinical researchers interested in childhood depression now contend that school-aged children "can and should be interviewed directly about their symptoms and concerns; that such data are indispensable to the diagnostic process and that free play is a distraction rather than an aid in this regard."* (Kovacs, 1986 : 140). Advocates of this approach also emphasize the importance of the dialogue with the child (i.e. talking with as opposed to playing with the child) and the "propriety of targeted questions about symptoms and complaints" (Ibid). However because children may not always be able to correctly label their affective states the observation of non-verbal behaviour is also stressed (e.g. Kovacs 1983; Poznanski 1982; Puig-Antich et al, 1983).

5.2 Assessment Approaches to Childhood Depression

Reynolds (1984, 1985) has pointed out that the assessment of depression can be roughly delineated into two approaches. The first approach focuses on the clinical syndromes or symptom-clusters which comprise the diagnostic classifications of depression such as DSM-111-R's major depressive disorder and dysthymic disorder. Assessment in this context is specific to the diagnosis of depression as a clinical entity according to accepted criteria.

As Cantwell has noted (1987 : 146) the child diagnostic process (in general) can be conceptualised as geared towards answering a number of questions which include:

1. Does the child who is being presented for evaluation have any type of psychiatric disorder? Does the child have a significant problem in development - a problem that is manifested as an abnormality in behaviour, emotions, relationships. or cognition; and one that is of sufficient severity and/or duration to cause distress, disability, or disadvantage?

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*Play techniques are acknowledged as a suitable vehicle for assessing fantasy and symbolic meaning but not symptoms.

2. Does the clinical picture of the child's disorder fit a known and recognized clinical syndrome?

3. Since all psychiatric disorders in childhood are probably of multifactorial etiology, what are the intrapsychic, familial, social and biological roots of the disorders in the individual child, and what are the relative strengths of each of these roots?

4. What forces maintain the problem?

5. What forces facilitate the child's normal development?

6. What are the individual child's strengths and competencies?

7. Untreated, what will be the likely outcome of this child's disorder?

8. Is intervention necessary in this case?

9. What types of intervention are more likely to be effective?

(After Cohen, 1976)

Traditionally, in this model the assessment of the child begins with an interview with the parent/parents followed by an interview with the child, about the child's problem. A common mode of procedure is for the interview to be unstructured initially. Once the mode of onset of the child's problem, duration and all presenting problems are clear, the interviewer proceeds to an (informally) structured assessment of salient symptoms. Therefore, in this approach, a clinical syndrome, such as depression, is defined essentially on the basis of the interview with the parents and the interview with the child.

A second assessment approach views depression from a depth or severity perspective, without attention to the symptom-clusters necessary for formal diagnosis. Assessment of depression in this context is typically expressed by a score continuum which may be translated into levels ranging from non-depressed to severely depressed. Most measures developed for use with children and adolescents follow this second assessment approach and provide a quantification and

global description of the depressive state (e.g. The Children's Depression Inventory (Kovacs, 1980/81) in which 0 = no depression, 1-2 = minimal depression and so on up to 7-8 = severe depression.)

These 'objective' measures used to assess depression in children (and adolescents) include : self-report inventories, parent rating scales, interview schedules and peer ratings. Many of these measures are relatively new and subsequently their reliability and validity have not yet been extensively tested. It should also be noted that some researchers continue to use projective techniques such as the Rorschach to measure depression in children (e.g. Cytryn and McKnew, 1972) but this is viewed sceptically in some quarters because it is contended that there is no demonstration of their reliability and validity in diagnostic procedures (Gittelman, 1980; Puig-Antich, 1983). One methodology which has not been systematically investigated, but which may show promise, is the development of direct observational measures which focus on specific diagnostic symptoms of depression.

5.3 Measures of Childhood Depression

5.3.1 Structured Interview Measures*

Over the past several years various structured (semi-structured) interviews have been developed for use by clinicians with parents to obtain details of child symptomatology. These include the Diagnostic Interview Schedule for Children - parent form (ISC; Kovacs, 1978); the Children's Version of the Schedule for Affective Disorders and Schizophrenia (Endicott and Spitzer, 1978) referred to as the Kiddie DS or K-SADS (Puig-Antich and Chambers, 1978); the Bellevue Index of Depression (BID; Petti, 1978).

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*For a detailed description of the various interviews and scales in this and the following section see Cantwell (1983), Hoier & Kerr (1988); Kovacs (1980/81) and Strober and Werry (1986). For a discussion of reliability, sensitivity and validity see Kovacs (1980/81); Hoier & Kerr (1988) and Strober & Werry (1986).

The aforementioned diagnostic interviews also have versions which can be used with the child subject him/herself. In addition, Hodges et al (1981, in Cantwell, 1983 : 149) have developed the Child Assessment Schedule (CAS) as a diagnostic interview for children.

Studies of the relative merits of structured and unstructured interviews in child assessment have shown that rigidly structured interviews in which all questions are predetermined, might miss important information. However unstructured assessments may also miss information because of failure to enquire about possibly present symptoms, thus leading to false negatives (Puig-Antich et al, 1983). The increasing use of semi-structured interviews, which combine interviews with parent and child with behaviour rating scales suggests a way of combining the advantages and avoiding the disadvantages of both extremes.

5.3.2 Rating Scales

Rating scales to assess depression in childhood can take the form of:

1. Self-report scales
2. Scales completed by significant others.

Self-rating scales are the most commonly used, most notably the Children's Depression Inventory (CDI) (Kovacs, 1980/81) and the Children's Depression Scale (CDS) (developed by Reynolds (1980) to measure depressive symptoms in children 8 to 13 years of age who are in a normal school setting.)

Parent rating scales have quite a long history (e.g. Conners Parent Rating Scale (1975); Achenbach's Child Behaviour Checklist (CBCL, 1978) and the Personality Inventory for Children (PIC); De Horn, Lachar and Godowski, 1979) however these measure general psychopathology and only have some items pertaining to depression. In addition, the CDS (see above) has a version to be completed by parents and the CDI can also be modified for use with parents.

Rutter, Achenbach and Conners also have general psychopathology rating scales to be completed by teachers, as well as parents. However, there is a notable paucity of specific teachers rating scales for assessment of depressive symptomatology in children. A promising one is Petti's (1979) Teacher Affect Rating Scale (TARS).

Clinician Rating Scales can be completed by the clinician in the course of a semi-structured clinical interview. Most prominent among them are the Children's Depression Rating Scale (CDRS) developed by Poznanski et al (1979) from the original Hamilton Scale; the Children's Affect Rating Scale (CARS) (Cytryn & McKnew, 1972) and Petti's (1977) Bellevue Index of Depression (BID) developed from Weinberg's diagnostic criteria. The BID is unique in that it is completed by the clinician by pooling information obtained from the child, parents, and other adults who can provide details concerning the child's general emotional and behavioural functioning.

A novel approach to the quantification of depression in children was adopted by Lefkowitz and Tesiny (1981) who developed the Peer Nomination Inventory of Depression (PNID).

Like the interviews, some of these rating scales are designed to assess general psychopathology as well as depression, while others look specifically at the extent and severity of depressive symptomatology. Kovacs notes (1980/81 : 306) that, in general, these instruments reflect the assumption that "increased severity of the condition is associated with greater symptom intensity and higher symptom frequency". Thus they yield a standardised quantification of the severity of depression and are generally "more economical and reliable and less likely to be influenced by observer bias than evaluations based on unstructured interviews". Rating scales also provide a common medium of communication for workers in the field. Moreover, since ratings can be obtained by self-report, clinican evaluation

or from significant others, they thus facilitate a multifaceted evaluation of the child.

5.3.3 Some issues in the use of rating scales with children

Rating scales are subject to all the usual criticisms of questionnaire-type measures (e.g. demand characteristics, "degradation" of data through quantification, "faking" etc.).

In addition, the use of rating scales with children has been questioned by authors who doubt that children are adept at reporting symptoms and in particular their duration. Moreover, it has also been recognized (Cantwell 1983) that language and cognitive skills at different age levels will probably influence the child's interpretation of the items and may thus play a greater role in variance than they do with adults.

However, as has been noted elsewhere, the diagnosis of depressive disorder in childhood is heavily dependent on subjective phenomena rather than on observable behaviour. Thus as some writers (e.g. Cantwell, 1983 and Puig-Antich et al, 1983, 1985) point out, it is not clear whether the presence or absence of depressed mood and accompanying symptoms needed to make a diagnosis of major depressive disorder, can be picked up by rating scales developed for use by parents and teachers. As regards teachers, the question of how well they will do in rating symptoms which are more subjective (e.g. mood, feelings) compared with how they do in picking up more overt behaviours (e.g. excessive restlessness in the case of attention deficit disorder with hyperactivity) is an unanswered question.

Other issues in the use of rating scales include the fact that certain symptoms tend to be reported more by parents while others tend to be reported more by children, and related to this the low correspondence between child and parent ratings of depression. Moreover, when there are many sources of information (e.g. parents, child, teacher, peers)

it is not clear how the different sources should be weighted, especially if there is a discrepancy on certain items. The potential for a relatively high rate of false positives when only one self-report measure of depression is used for diagnosis, must also be noted.

It is also apparent that comparable scores on a particular scale cannot be taken to mean that the quality or significance of the experience on which those scores is based is comparable (Philips et al, 1982; cf. research). Furthermore the content of many child behaviour rating scales may be called into question. For example many scales contain items that do not pertain directly to the behaviour of the child (e.g. "comes from a broken home") or reflect consequences of behaviour (e.g. "is kept after school"). In addition Kovacs (1981) has noted "the variable range of symptomatic coverage" of various scales (which she considers to reflect the lack of consensus in the field about the phenomenology of childhood depression).

A further consideration is the influence of informant characteristics on behavioural ratings. Informants differ in many ways known to influence the behavioural ratings they provide. Moreover, it appears expectations can influence ratings of children's behaviour. (For a discussion of these points as they relate to teachers see Chapter 6).

The significant (but unanswered) question of what role the data obtained from rating scales plays in the making of a diagnosis of depression, needs to be clarified. Diagnosis, as Kazdin (1981) stresses, is the result of a comprehensive clinical evaluation, it is not the summation of numbers on a rating scale.

There are thus a number of problems and unresolved issues pertaining to the use of child behaviour rating scales. Nevertheless as Edelbrock (1983) and Reynolds (1985) point out, these scales can provide an efficient and cost-effective way of obtaining objective and reliable information regarding child behaviour. The use of multiple

sources of information as well as multiple measures (particularly if self-report is used) will reduce the rate of false positives and false negatives in diagnosis.

5.4 Conclusion

The assessment of childhood depression has varied both in terms of the type of clinical information obtained and in terms of the measures used to obtain information (Saylor et al, 1984). Researchers (and clinicians) have used assessment data from children (both patients and their peers), parents, teachers, independent raters and test examiners. This information has been obtained from diverse assessment approaches including interviews (structured, semi-structured, unstructured), ratings, checklists, direct observations; and psychological tests. The role played by these various assessment tools in the making of a diagnosis, is not always clear. We need to be aware for example as Gittelman (1980) has pointed out that only in rare cases does psychological testing (or physical or neurological examination for that matter) contribute towards making a specific diagnosis in children. However they play an important part in providing other information relevant to the diagnostic formulation (and hence treatment). We also need to be mindful of the fact that behaviour rating scales are severity measures and not diagnostic tools (Kovacs, 1980/81). A significant (but unanswered) question is how the data obtained from rating scale procedures is used in making a diagnosis of depression.

As Kerr and Hoier have noted (1987 : 195), the use of divergent instrumentation reflects the continuing debate regarding what types of measures and sources of diagnostic information should be included in a childhood depression assessment protocol.

CHAPTER 6

6.0 The Role of the Teacher in the Early Identification of Childhood Depression

6.1 Introduction

In viewing depression in children (and adolescents) it is important to recognize that this disorder impacts not only on the child, but also on his/her ability to interact and deal effectively with others and the demands of his/her environment (e.g. school). This being so, it would seem imperative to obtain information about the child's functioning in different environments, from people present in those environments (e.g. the teacher in the case of the school.)

In line with this, advocates of the multimethod approach have called for increased attention to the sources of information and to what different sources of information can contribute to the study of depression in children (e.g. Bagnato, 1986; Hoier & Kerr, 1988). Thus, in addition to the usual family and child data clinical studies have recently reported the inclusion of data obtained from outside observers, particularly teachers (Kazdin, Esveldt-Dawson and Loar, 1983; Puig-Antich et al, 1985) but also peers and outsiders.

Moreover, many investigators (e.g. Bagnato 1986, Kerr and Hoier 1987, 1988, Mattison, Cantwell and Baker 1982) now stress that a blend of data from clinical interviews (parent, teacher, child), behaviour observation ratings and child self-report is essential for a comprehensive diagnostic process.

Hoier and Kerr (1988 : 21) note that non-familial sources of information about depressed children (especially teachers but also peers, outside observers) may offer information crucial to the diagnostic and treatment process in several different ways, including:

(1) confirming or raising questions about the accuracy of information provided by a child and his or her family.

(2) identifying depressive symptoms that may be inaccessible to the parent and not reported by the child, e.g. quality of social interactions with peers and daily academic performance

(3) increasing the likelihood that changes in behaviour and onset of depressive symptoms will be detected as a result of multimethod, multisource assessments

(4) providing more information concerning the cognitive, affective and behavioural effects of psychopharmacological, psychotherapeutic and special education treatments.

Although parents and children can be assumed to provide information which is necessary and important for assessing the clinical status of referred children, they may not be sensitive to all aspects of a child's functioning, nor may they be accurate. In some cases, a differential diagnosis may be obtained only after additional sources of information are explored and the data thus obtained, included in the diagnostic process.

6.2 School Distress and Childhood Depression

Given the large percentage of waking hours that children spend in school and the powerful impact that school events have on their lives, it seems logical that a phenomenon such as childhood depression would influence and be influenced by the child's school functioning. And indeed, the interaction between school distress and childhood depression has been shown to be substantial (Weinberg et al, 1979; Tisher, 1983; Weinberg and Rehmet, 1983).

Whether we speculate that a child placed in a classroom situation with demands which exceed his abilities, subsequently develops low self-esteem, depression, helplessness and hopelessness, or that a depressed child has

his performance hampered by poor concentration and feelings of hopelessness, school failure and depression are often associated. A further group of children with school problems who are often found to be suffering from depression are those manifesting "school phobia", "separation anxiety" and/or school refusal (Tisher, 1983). Another disorder which appears to be associated with childhood depression is conduct disorder (Carlson & Cantwell, 1980; Puig-Antich, 1982). Furthermore, it has been suggested that attention deficit disorder and depression, though they can occur independently, may quite often be associated (Brumback & Weinberg, 1977; Weinberg & Rehmet, 1983).

Despite the methodological issues surrounding the accessing of teacher information and its use in the identification of depressed children, we cannot ignore the fact that teachers are centrally placed to observe signs of both school distress and a possibly co-existent (or independent) depression. They are therefore in a unique position to contribute to the early identification of childhood depression. The utility of the information possessed by teachers and the significance of the roles they play in children's lives appear to have been underestimated in this regard.

6.3 Teachers as Clinical Informants

Information from teachers about emotionally disturbed children has been shown to be helpful for (1) early identification and referral (Bower, 1981), (2) providing a profile of psychiatric disorders (Edelbrock and Achenbach, 1984) and (3) for monitoring treatment (Puig-Antich, 1985).

However most of these studies have focussed on hyperactivity (Conners, 1973) or conduct disorders (Mendelson et al in press.) Relatively few studies have asked teachers for feedback on depressed children and for the most part, these studies have not looked specifically at the contribution of teacher information but have simply included it to validate other measures. Also, as Hoier & Kerr note, (1988 : 22), "in general teacher information has

been limited to behaviour ratings, report cards and checklists, overlooking the richer observational data which they could provide in an interview.

* The obvious low priority given to teachers' observational data and the general underutilisation of behavioural assessment approaches (e.g. observation of subjects in the classroom) may reflect the assumption that direct observation is not a useful approach to assessing the "internalising disorders" such as depression (Puig-Antich, 1985). However, the demonstrated utility of direct observation for monitoring treatment effects in depressed children (Kaplan & Sadock, 1988, Puig-Antich, 1985) and predicting post-hospital adjustment in depressed adults (Williams et al in Kerr et al, 1987 : 196) refutes this assumption. Recently, observation measures have appeared more frequently in the literature (Kashani et al, 1982, Kazdin, Esveldt-Dawson & Loar, 1983) and this indicates an attempt to explore the utility of this relatively objective assessment approach. Such studies may also help to establish the utility (or otherwise) of teacher's observational data.

For the most part then, in the study of childhood depression, information from teachers has been obtained using rating scales and checklists (the few that are available). An impediment to obtaining sound information from teachers has been the virtual absence of psychometrically-tested measures designed specifically for them. The absence of a structured or even semi-structured teacher interview, to tap the more qualitative data possessed by teachers is a further impediment (Hoier & Kerr (1987) are in the process of developing one.)

The many methodological problems related to the design and interpretation of available teacher measures is discussed by Hoier & Kerr (1988) who note (among other things) that:

- Many of the measures were never intended for teachers and that moreover modifying the original measures may have altered the psychometric characteristics of the original measures rendering the reported reliability and validity data inaccurate. Moreover, some teacher measures have been constructed simply to confirm/disconfirm other information.
- Many instruments use a priori measures with unknown psychmetric properties (e.g. teacher ratings of popularity, somatic complaints, work/study habits).
- There is inattention to the differential effect of child age and sex on teacher ratings. (How teacher's own age, sex and background affects their ratings needs a closer look also - see below.)
- We do not know whether the various (teacher) measures tapped behaviours which are socially valid in classroom settings. Also, teachers are sometimes asked to rate behaviours they don't understand or that they have little opportunity to witness.
- Many current teacher rating scales include few, if any items describing behaviours usually associated with affective disorders.

In addition, when considering teachers as clinical informants, we need to be aware of how teacher characteristics may affect this role. As Edelbrock notes (1983 : 297) teachers differ in their sensitivity and tolerance to children's behavioural problems. They also differ in terms of their own personality, ability to deal with behavioural differences on the part of children and in their expectations regarding child behaviour. All of these factors influence the ways in which teachers perceive and rate child characteristics.

The issue of how expectations can influence ratings of children's behaviour also needs to be considered. It appears, for instance, that simply labelling a child as "disturbed" or "learning disabled" will inflate teacher ratings of problem behaviour (Foster & Salvia, 1977).

It seems likely that these methdological problems may account, at least in part, for the mixed results that have emerged from studies exploring teachers' ability to differentiate between depressed and non-depressed children. For example, although it appears that teachers tend to agree with peers when they rate certain children as depressed, teachers and parents do not report the same problem behaviours. It also seems that teachers do not necessarily see depressed students the way students view themselves. It is evident that these disparities must be explained if we are ever to have a true diagnostic picture of childhood depression.

It is also evident that before we can capitalise on the advantages of a multimethod, multisource approach to the assessment of childhood depression, we need to understand what it is exactly that different sources of information (e.g. teachers) can contribute to the study of childhood depression and how this information fits together with other available information to inform the diagnosis.

6.4 Unique Perspective of Teacher Informants

Not only are teachers centrally placed to observe manifestations of depression, but they possess a unique knowledge of developmental norms because of their experience with large numbers of same-age children over an extended period of time. Furthermore they come into daily contact with many children of different ages. They, more than parents are thus able to base their observations on a large and diverse set of norms.

Teachers may also be more objective in their reports, since they have less emotional involvement in the children than do parents, who may possess an intrinsic reluctance to acknowledge or accurately report the presence of depressive symptomatology. Parents' involvement in family dynamics and their own affective states may contribute to either an over-description or denial of such symptoms in their children.

In addition, there is some information that can only really be reliably obtained from teachers i.e. information about school-related behaviours (e.g. academic performance or fluctuations in performance; concentration; motivation; peer relationships).

6.5 The Role of Teacher Information in Differential Diagnosis of Prepubertal Major Depression

In order to arrive at a diagnosis of Major Depressive Disorder, the following symptoms in the depressive syndrome need to be assessed (DSM-111-R : 1987):

- Depressive Mood
- Excessive Guilt
- Anhedonia : Lack of Interest/Pleasure
- Suicidal Ideation and Behaviour
- Changes in Sleep Patterns
- Changes in Appetite and/or Weight
- Difficulty Concentrating and/or Slowed down Thoughts
- Fatigue, Excessive Tiredness and Lack of Energy
- Psychomotor Agitation and Retardation.

The major clinical feature is a chronically sad mood (which may be expressed as irritability).

While the symptoms noted above are the most commonly used as criteria for a clinical diagnosis of a depressive syndrome in a child certain other depressive symptoms are so frequent in depressed children as to deserve mention:

- social withdrawal; inability to have fun in play; irritability; excessive weeping or the feeling of wanting to cry (Poznanski, 1982).
- low self-esteem; somatic complaints (e.g. stomachaches, headaches); aggressive behaviour; "sulkiness" (Cytryn, McKnew & Bunney, 1980).

The school performance of depressed children is invariably affected by a combination of difficulty in concentrating, slowed down thinking, lack of interest and motivation, fatigue, sleepiness, depressive ruminations and

preoccupations. Teachers are well placed to comment on several of these symptoms and their input may be essential to the correct assessment of certain of them. It is evident, therefore, that the information possessed by teachers is potentially important in the differential diagnosis of Major Depression in children. Some of the ways in which teacher information can contribute to differential diagnosis are presented below.

Difficulty Concentrating (and/or Slowed Down Thoughts)

It is often stated that concentration difficulties in particular are hard to assess without direct input from the teacher (e.g. Puig-Antich 1983, 1985). Because of the demands of the school situation and because comparison with a subject's peers is easily carried out, the teacher is obviously well placed to assess impaired concentration.

Parents are not reliable reporters of impaired concentration for a number of reasons: the tasks of living at home do not require intense concentration; many children do homework alone, out of parents' sight; children are exposed to varying degrees of distraction at home, making uniform standards for comparison difficult. In addition, secondhand reports of teachers' comments or opinion by parents (or the child) are not a good substitute for direct teacher information because they may be distorted to fit the information bearer's own needs. The parent can report gross indices of poor concentration e.g. changes in school performance as reflected by a drop in marks or the report card. However, low scholastic marks do not necessarily indicate concentration difficulties. Information from the teacher can be used to clarify the situation. For example, the child may have completely lost interest in schoolwork and other school activities (which would be rated as "lack of interest"). A child may also do poorly in school because of interpersonal difficulties with peers or teachers. Neither of the above examples would be specifically rated as concentration difficulties.

The teacher can also provide more specific information about the quality of concentration difficulties. Poznanski (1982 : 303) underscores the importance of this when she notes that typically the difficulty in concentrating experienced by the depressed child is because his or her attention is turned inwards (e.g. ruminations of self-blame, worthlessness) whereas the hyperactive child is distracted by external stimuli.

The younger the child, the more critical the information from the teacher becomes. Younger children, in particular, are unreliable informants on concentration impairment since it usually causes them no distress or feeling state by itself, and they become aware of it primarily by feedback from teachers, if at all.

Psychomotor Agitation or Retardation

Excessive restlessness would be particularly noticeable in the classroom situation where children are required to sit still for extended periods of time. Following from this, the important role teachers routinely play in the reliable assessment of Attention Deficit Disorder with hyperactivity (ADD-h) and the monitoring of treatment effects, is well accepted.

A related situation where information from the teacher is crucial to differential diagnosis, is in making the distinction between agitated depression or mania and Attention Deficit Disorder with hyperactivity. Since both conditions are associated with persistent and excessive restlessness this is a particularly difficult distinction to make. In order to confirm a diagnosis of "hyperactivity", careful monitoring of the child during drug treatment is essential to note any changes in behaviour.

On the other hand, if depression is diagnosed and the child treated with antidepressants the distinction may only become apparent after treatment is discontinued. If the child then has no difficulty concentrating and is not hyperactive, in the drug free state, it is highly unlikely

that an attention-deficit hyperactivity disorder was present (Kaplan and Sadock, 1988). It is apparent that without the teacher to monitor changes in behaviour, drawing the correct conclusion will be problematic.

Apparent retardation of speech and language is common among depressed children who tend to answer questions in one or two words and a monotone voice. However, oppositional children can also give short answers in a clinical situation, or more basically, the child may simply be fatigued. It may therefore be important to check the child's level of language development, in which case the teacher would be the best source of information.

In general, psychomotor changes are easily observable and therefore parents and teachers (sometimes more so, see above) are the best sources of information.

Social Withdrawal - Poor Peer Relationships

As well as the diagnosis criteria cited above (DSM-111-R) several writers (e.g. Poznanski 1982, Weinberg 1973) note that social withdrawal is frequently seen in depressed children. This symptom is usually secondary to poor peer relationships.

In particular depressives seem less able than non-depressed children to maintain a special or "best" friendship and have a significantly lower overall ability to make and maintain positive peer relationships (Puig-Antich et al, 1985 : 702). Nonetheless, as Poznanski (1982 :302) points out poor peer relationships can be characteristic of many other emotional problems besides depression. Unlike children with other disorders, however, the child with an acute depression has usually developed the capacity for interpersonal relationships and has been able to socialize prior to the onset of the depression (Poznanski, 1982 : 302).

In another variant of the disturbed social behaviour of depressed children, the child may actually set him/herself

up to be rejected by other children. For example a child who used to be responsive to the feelings of other children may begin insisting on imposing his/her own rules to such an extent that he or she loses friends..

It is obvious that the teacher is in an excellent position to observe and report on the above. Because she sees the child nearly every day, with the same peers, in the same context, difficulties and/or changes in peer relationships will be more easily detected than, for example, by the mother. In addition the teacher possesses data re <u>past</u> functioning which will facilitate the distinction between a child who has never had the ability for positive peer relationships and one whose behaviour has changed and affected his peer relationships.

6.6 Conclusion

Given that self-referral is rare amongst children and the fact that parents often tend to minimise/deny depression in their children and thus delay seeking help, the role of the teacher in its early identification and as the key to initial referral, becomes salient. Moreover, given that depression may be manifested, in part, as school distress, teachers are more likely than others to be sensitive to certain of the symptoms of depression.

For these and other reasons (noted above) I have argued, in this dissertation, that teachers are optimally placed to play a role in the early identification of childhood depression and that as well as a peripheral role i.e. providing back-up information when a clinician suspects a child may be depressed, they can fulfil a more central screening function (i.e. they can be aware of the symptoms and, where indicated, make a referral for help for the child). In addition, although seldom acknowledged, it is apparent from the foregoing that teachers are often in a position to provide information, critical to differential diagnosis, which is inaccessible to both parents and

clinicians. Nonetheless, teacher information has typically been given a low priority.

Hoier and Kerr (1988 : 21) suggest that an obstacle to the full use of teacher informants may be the separation among disciplines which causes them to focus on certain assessment measures and the problems they choose to address with those measures. For example, with few exceptions, those trained in psychiatric settings rarely study, or take a serious methodological interest in, direct observational studies in school settings. Rather, they focus on interview data gathered in clinical settings (and sometimes rating scale data.)

This point is underlined by Kazdin et al (1985) when they state that the use of "a narrow range of assessment measures and the failure to adopt holistic diagnostic approaches that would incorporate the expertise of many disciplines has limited severely our information about childhood depression."*

The difficulty posed by the dearth of reliable assessment measures which focus on teacher information has already been mentioned.

The central question which now needs to be addressed is how, given the rich data base of socially and educationally valid information possessed by teachers and their unique position vis à vis children, this can best be utilised in the endeavour of early identification of childhood depression. Obviously, a prime concern must be to untangle the methodological issues involved in designing and interpreting teacher measures, and indeed this is an active research area at present (Reynolds 1984, Hoier & Kerr 1988). If better teacher measures (e.g. a structured or semi-structured interview) become available which allow comparison with recognised measures of childhood depression

*I would also submit that this failure may have contributed to an underrecognition of depression in children especially where they do not fully meet the adult diagnostic criteria.

(but which still capture the rich observational and descriptive data possessed by teachers), and if the value of teacher information can be demonstrated (e.g. through further research), then the greater use of teacher informants will be encouraged. Obviously too, if teachers themselves are to detect signs of depression in children they must be educated as to its behavioural manifestations.

In the meantime teacher information will continue to be underutilised and teachers, lacking guidelines, will remain in doubt about when to refer and may respond inappropriately to depressed children in the classroom.

CHAPTER 7

7.0 CONCLUSIONS OF THIS STUDY, LIMITATIONS AND FUTURE DIRECTIONS

7.1 Conclusions of this Study

What has emerged from a review of the literature is that (in the last decade) there has been a growing acceptance that depressive disorders can and do occur in childhood. The currently held perspective, in many quarters, is that depression in children is, for the most part nosologically and phenomenologically similar to depression in adults with minor modifications for developmental differences. This position is buttressed by the American Psychiatric Association in their DSM-III-R (1987).

However, there are still unexplained differences between depressed adults and children. Some of these have been highlighted by attempts to examine, in children, characteristics which have been shown to be associated with adult depression, using the same or similar methods (e.g. biological studies.) Others revolve around the fact that in attempts to explain childhood depression from a clinical perspective, developmental considerations have virtually been ignored (e.g. the evidence that there are striking changes with age in both frequency and form of childhood depression.)

The fact that childhood depression has been explored mainly <u>indirectly</u> using the adult model (e.g. adult diagnostic criteria) poses philosophical problems, and leaves room for the feeling that one is witnessing some scientific sleight of hand. It seems apparent that we will have to approach the study of childhood depression much more directly, with all the complexity that such an approach implies (e.g. taking into account developmental factors), if we are to define it more meaningfully.

A trend seems to have emerged, to base diagnosis of childhood depression on the information from many sources,

however the disparities which are routinely present in such data need to be explained (as does the question of how this information contributes to the making of a diagnosis.) These unresolved issues have probably contributed as much to the controversy surrounding childhood depression as has the disagreement about diagnostic criteria.

Despite the lack of clarity on certain issues, there is a consensus in the literature that childhood depression (as it has been defined in this dissertation) is much more widespread, and has much graver consequences than hitherto believed. Given the seriousness of the situation and the fact that early identification may affect prognosis, the need for early and effective identification of childhood depression is regarded by the author (and others) as being of paramount importance. In this regard, the teacher's role appears to be a largely unexplored but potentially extremely important one. However unless the issues of poor design of present teacher measures, the low regard in which teacher information is generally held and impediments to providing guidelines for teachers within the present school pschological services are addressed, the potential value of teacher information in the early identification of childhood depression cannot be realised.

7.2 Limitations of this Study

The limitations of this study echo in part the limitations of the field as a whole. It has been observed (Kerr 1987), that childhood depression has been examined in a way rather like that of the blind man examining the elephant. We should beware of making their mistake which was to infer a whole object consistent with the little patch that came under their hands. While many advances, both theoretical and empirical have been made in the field of childhood depression these have not yet been fitted together to produce a comprehensive theory of childhood depression. Thus, what has been presented here is part of an as yet imperfectly understood picture.

Moreover, since this dissertation has focussed on only prepubertal children the comments made herein cannot necessarily be generalised to children of all ages. This is particularly so with children under six because very little is known about depression in this age group.

Furthermore, by discussing childhood depression within a psychiatric framework, support has been implied for the positivist, medical model of mental health. The positivist model "assumes that observations can be made (and data thus collected) objectively - that measures can be defined operationally, and applied in a precise, replicable fashion; and that theories can be constructed on the same causal, deterministic basis as in the natural sciences" (Ingleby, 1981 : 28). We need to be aware of criticisms of this model. For example, Ingelby (1981 : 43), notes that "norms of mental 'health' and 'illness' are essentially matters of (subjective) cultural judgement, although positivism misrepresents them as matters of empirical fact".

Notwithstanding the above, the bulk of the literature on childhood depression is located within a psychiatric paradigm. Since one of the aims of this dissertation was to shed light on present thinking about childhood depression, of necessity, it is the findings from this literature which have been discussed. In addition it seems likely that precisely because of its focus on symptoms and tendency to operationalise behaviour this framework may be most readily accessible to teachers and will thus provide a vehicle for interdisciplinary communication.

Since the discussion on diagnosis and assessment focussed on practical, methodological issues to the neglect of more philosophical ones, it seems important to sound a word of warning. As Scheff has noted (in Ingleby 1981 : 55) the states supposedly characteristic of mental illness are actually very widespread in the normal population; if a person is not <u>labelled</u> sick, these states may be overlooked, but if he is, they provide further "proof" that the diagnosis is correct.

Following from the above, it must be noted that the issue of the child's agency and the related one of what constitutes a 'reasonable' (as opposed to a pathological) response to a social situation, has not been addressed. The question of 'invulnerability' has also not been considered.

It is often implied in the literature (and possibly to an extent in this dissertation) that all problems will be solved by the development of reliable and comprehensive measurement instruments. It is apparent, however that none of these philosophical issues (about the nature of man, what constitutes pathology etc) will simply go away. In addition it is important to be aware of the fact that many data-gathering techniques (e.g. structured interviews) are fashioned in such a way as to presuppose the very issues that are at stake.

While the importance of the multi-method, multi-perspectival approach to childhood depression has been endorsed in this dissertation, it has not been sufficiently stressed that in order to arrive at a valid explanation from multi-source investigations, it is necessary to explore the interactions between various dimensions. Nor have these interactions (e.g. the influence of individual teacher characteristics on behaviour ratings) been fully examined in the above discussion. The effects of child characteristics (e.g. age and sex) on teacher ratings and the subject of teacher-pupil relationships are also deserving of a closer look.

The general dearth of studies in South Africa in the field of childhood depression has necessitated concentrating on studies of the middle class population in the United States, a population not unlike the same group in South Africa but from whom it would be unwise to suggest any but the most general analogies.

7.3 FUTURE DIRECTIONS

7.3.1 Primary Prevention and Early Identification

Not only does the study of childhood depression hold out promise of increasing our understanding of adult depression, but more importantly, it brings with it the possibility that we can come to recognise the precursor signs of depression and thereby be in a position to prevent the disorder. In the meantime, since early identification appears to be an important variable affecting prognosis, and since childhood depression can be life-threatening, it is vital that efforts be concentrated on the early and effective identification (and intervention) of childhood depression.

Several areas of biological research in childhood (and adult) depression (e.g. the search for a biological marker and a test of genetic vulnerability; drug treatment of children) promise to contribute fundamentally to this endeavour. However, since these are the domain of the child psychiatrist, they will not be discussed further here. In addition to such attempts, the work of primary prevention needs to take place in the school and at home.

Some researchers (e.g. Albee 1982, Reynolds 1985, 1986) note the fact that depression is an affective disorder which can be screened for through epidemiological studies, which supports the case for early identification and intervention. Reynolds (1985 : 170) suggests that the brevity (10-15 minutes), low cost and group administration format of depression measures such as the Child Depression Scale and the Children's Depression Inventory makes it practical to screen entire schools. Students identified as depressed from this procedure should be reassessed with another self-report measure. If both reports are positive for depression, a clinical interview is advised. Furthermore, some researchers (e.g. Butler & Miezitis 1980, Reynolds 1986) have recommended school-based programmes, administered by teachers, to promote the prevention of depression in children (and adolescents). Whether such programmes reduce the incidence of depression remains to be verified.

7.3.2 Development of Treatment Approaches

Since the ideal of primary prevention is unlikely to be perfectly attained, a prime research focus needs to be the treatment of childhood depression. Thus far, research has focussed on the assessment of childhood depression and its remediation via pharmacotherapeutic means. Our knowledge of the psychological treatment of childhood depression has lagged far behind. Evidently, a high priority in future research is the refinement of psychotherapies (e.g. behavioural, cognitive, self-control and social skills) and the demonstration of their efficacy with depressed children. Cognitive behaviour modification techniques have already been viewed as efficacious for use with children (and adolescents) and have been applied to a range of academic and clinical problems (e.g. Reynolds & Stark, 1983, Kendall & Braswell, 1982). Research is required to judge the efficacy of family therapies for treating depressed children and adolescents.

It must be noted, however that psychotherapy is not always a more desirable intervention approach than pharmacotherapy. For example it is not considered to be very effective in cases of severe depression (Kaplan & Sadock, 1988 : 484) where it may be necessary to first adopt a drug treatment and only later consider therapy. Especially where the child or adolescent is suicidal it may be inappropriate to consider a six week or longer treatment approach when medication may more rapidly reduce life-threatening symptomatology.

7.3.3 Towards a Theory of Childhood Depression

Further research should also focus on whether specific theories of depression which were developed from adult models of psychopathology can be adopted for use with children (and adolescents). There is also a need to formulate and investigate models of depression specific to childhood (e.g. from a developmental perspective). Whether

predicated upon adult formulations or not, such models are basic to, and requirements of, any systematic treatment programme. Lewinsohn, Sullivan and Grossup (1980) underscore the importance of this when they note (in Reynolds, 1985 : 169) that "any treatment approach for depression requires three components, foremost of which is a theory, followed by a strategy and some tactics.

7.3.4 Importance of Naturalistic Studies

Latterly, many attempts to study childhood depression have focussed on demonstrating its similarity to adult depression. A correlational approach has been stressed in this research (with the attendant problem that causality cannot be inferred). It seems essential, in order to broaden our understanding of etiology (and hence increase the effectiveness of treatment) that we also undertake interactional and observational studies which answer questions about the functioning of depressed children in their natural environment. Thus, in addition to "working backwards" from what known about adult depression we need to focus on features of a child's life which are more specific to childhood and likely to be currently exerting an influence on the child (e.g. the family, the school).

For example, as Kaslow & Namboldt (1985 : 422) point out, although depressed children frequently come from families that have a high incidence of depression there is virtually no research examining the specific interactional patterns that characterise families with depressed children in comparison to families with normal and disturbed non-depressed children. Given that children spend such a large part of their lives in school and that teachers can have a profound effect on children's lives it would also seem important to examine the interactions between depressed children and their teachers. The peer relationships of depressed children are worthy of a further scrutiny as well. To date there have also been few studies of personality and related affective characteristics of depressed children.

The importance of understanding the relationships of depressed children is underlined by Cole & Kaslow (1986 in Kaslow & Wamboldt, 1985 : 422) who suggest that when children are unable to regulate their own negative affect, they need significant people in their lives to help them regulate these feelings and that if their social systems (family, teachers, peers) are able to perform this function,

7.3.5 A More Developmentally-Orientated Approach

Another important direction for further research is the examination of the effect of different stages of development on the expression (both affective and physiological) of childhood depression. Research has begun to emerge from the new field of developmental psychopathology (e.g. Garber, 1983). Of note is the proposal of a line of development for affect (mentioned in Barsch, 1988). Also noteworthy is an interesting discussion by Cole and Kaslow (1986) (in Kaslow and Wamboldt, 1985) who examine a number of models of depression in relationship to child development and provide a cognitive-developmental perspective on childhood depression. These and other developmentally-related explorations are only just beginning to be undertaken. Findings from these suggest the importance of a developmental approach in future research. As part of this endeavour, cross-sectional studies within a developmental framework are recommended.

7.3.6 Importance of Longitudinal Studies

We need more data from longitudinal studies to ascertain the long-term adjustment of depressed children and, impinging on this, the efficacy of various treatments. Questions about continuity of depression across age groups will only really be answered when a group of pre-pubertal depressive children has been followed up into adulthood.

7.3.7 School-Based Assessment, Intervention and Research

While the study of childhood depression has traditionally been the domain of the child psychiatrist, it is apparent from the foregoing that psychologists working with/within schools (e.g. Educational Psychologists but also school (circuit) psychologists) need to take a more active interest in childhood depression from both a clinical and research perspective. As providers of psychological services to children they can and should play an important role in the assessment, diagnosis and treatment of depressed children.* Their awareness of this disorder is also important from the standpoint of knowing when to refer depressed children for psychiatric treatment (which may include pharmacologic interventions.) Furthermore, as individuals responsible for the mental health of children, they should take an active role in the promotion of primary prevention activities.

Reynolds (1986) and Butler and Miezitis (1980) for example have proposed school-based programmes administered by teachers (with psychologists as consultants) for prevention and/or treatment of depressed children. While we await final verification of the effectiveness of these programmes, Fleming and Thornton (1980); McLean and Hakstian (1979) and Lewinsohn and Munoz (1979) (in Reynolds 1985 : 168) have demonstrated the feasibility of depressed adolescents being treated effectively by psychologists within the school setting.

There is a particular need to learn more about depression in childhood and its relationship to such variables as academic achievement, conduct and behavioural disorders and school phobias. These areas should be of special interest to Educational Psychologists because their manifestation impinges upon students' school functioning.

As Reynolds (1985 : 171) has suggested, schools may in fact provide an optimum milieu for the systematic study and

*The caveats to this suggestion are discussed in the following section.

treatment of depression in children (and adolescents). If we are to capitalise on the possibilities which have been presented, we need to have well-trained psychologists in constant contact with the schools, who have a knowledge of both educational and psychological aspects of children's lives (e.g. Educational Psychologists.)

7.3.8 Teacher Education

It has been argued in this dissertation that teachers are optimally placed to play a fundamental role in early identification of childhood depression. What emerged from the discussion was the importance of the teacher as the initial key to referral and the related need for teachers to be educated as to what behavioural signs may alert them to the possibility of a child's being depressed. Once they have identified such children, a referral can be made for further assessment.

Following from the above, the question immediately arises of who will undertake such teacher education. The present structure of psychological services in primary schools* in the Cape Province is woefully inadequate to meet this need. Disturbingly, there are essentially no psychological services at all for black primary schools. The only psychologically-trained personnel assigned to white primary schools are circuit psychologists (so-called "school psychologists") who often have only sporadic contact with each school. A more substantial stumbling block to the meaningful involvement of such psychologists is the fact that the focus of their own training has usually been the assessment of cognitive functioning while very little (if any) attention has been paid to the evaluation of affective and emotional disorders. Circuit psychologists are thus usually ill-equipped to meet the need either for teacher education or for effective assessment and diagnosis of children with affective disorders. This current situation

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*The present discussion refers to the government-funded school psychological services for white primary school children in the Cape.

underscores the importance of the teacher as the initial key to appropriate diagnosis.

Since the first step in helping depressed children (and adolescents) is being aware of the disorder and alert for its clinical manifestations it is evident that teacher education is of paramount importance. A further role (see above) is suggested here for the educational psychologist (whether through in-service training of teachers or consultation). However, unless substantial reorganisation takes place either to make available the expertise of educational psychologists or to broaden the training of circuit psychologists it seems likely that primary prevention activities (e.g. teacher education, school-based screening) will not be promoted and many depressed children will go untreated.

Table 1 Diagnostic Criteria for Childhood Depression

RDC (Spitzer et al, 1977)	DSM-111 (APA 1980)	POZNANSKI (Poznanski et al, 1981b)	WEINBERG (Weinberg et al, 1973)
Dysphoria and/or	Dysphoric mood and/or	Depressed mood, behavior, or appearance	Dysphoric mood (melancholy) and Self-deprecatory ideation
Pervasive loss of pleasure	Loss of interest in almost all usual activities and pleasure		
AND	AND	AND	AND
four (probable) or five (definite) of the following:	four or more of the following:	four (probable) or five (definite) of the following:	two of the following:
- Poor appetite or weight loss or increased appetite or weight gain	- Poor appetite or weight loss increased appetite or weight gain		- Unusual change in appetite and/or weight
		- Social withdrawal	- Diminished socialization
- Sleep difficulty or sleeps too much	- Insomnia or hypersomnia	- Difficulty with sleep	- Sleep disturbance
- Loss of energy, fatigability, or tiredness	- Loss of energy, fatigue	- Complaints of fatigue	- Loss of usual energy
- Psychomotor agitation or retardation	- Psychomotor agitation or retardation	- Hypoactivity	
- Loss of interest in pleasure	- Loss of pleasure in usual activities	- Anhedonia	
- Self reproach or excessive guilt	- Feelings of worthlessness or guilt	- Lowered self-esteem or pathological guilt	
- Decreased ability to think or concentrate	- Decreased ability to think	- Difficulty with schoolwork	
			- Change in school performance
			- Change in attitude toward school
- Recurrent thoughts of death or suicide	- Recurrent thoughts of death or suicide	- Morbid ideation, suicidal ideation	
			- Somatic complaints
			- Aggressive behavior (agitation)
DURATION	DURATION	DURATION	DURATION
1 week probable 2 weeks definite	2 weeks or more	1 month	1 month

Source : Poznanski (1982)

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