The Use of the Research Diagnostic Criteria (RDC) for Depression in Adolescent Psychiatric Inpatients

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Lack of common diagnostic terminology and questions about the reliability of diagnosis in adolescents have inhibited investigation of depression in this age group. The Research Diagnostic Criteria (RDC), which are now widely used in research in adult psychiatry, were applied to a group of adolescent psychiatric inpatients. Nine of 33 or 27% fulfilled criteria for Major Depressive Disorder. The Hamilton Rating Scale for Depression and the Carroll Self-Rating Scale for Depression, also used in studies of adults, were used. Acceptable reliability with the Hamilton was demonstrated while questions were raised concerning the use of the self-rating scale alone in this group. Further reliability and validity studies for the diagnosis and interview methods are needed.


There is considerable ambiguity surrounding the diagnosis of depression in adolescents. The reported incidence in inpatient populations, for example, ranges from 3 to 33% (Gibson, 1978; Hudgens, 1974; Weiner, 1970). This uncertainty has inhibited the study of effective treatment modalities.

There are several sources of this ambiguity. First, it is often said that the unhappy moods of healthy adolescents cannot be distinguished from significant affective pathology. This can be considered an instance of the broader question of our ability to distinguish psychopathology from normal "adolescent turmoil" (Freud, 1958). The work of Masterson, Offer, Rutter and others has established that this discrimination can be made (Masterson, 1967; Offer and Offer, 1974; Rutter et al., 1976) and the hypothesis that it is possible with affective disturbances in particular can be considered. Secondly, adults' tendency to focus primarily on children's and adolescents' behavior rather than mood can result either in minimizing depression or in exaggerating its role through indiscriminate assumptions that all troublesome behavior reflects "masked" depression. This is complicated further by the common clinical experience of observing depressive affect in some children and adolescents only when behavioral, alloplastic defenses have receded. Third, clinicians focus, with good reason, on the frequent presence of disturbances in the family and in other relationships, and we are cautious about considering a disturbance in affect to be the "primary" illness. We usually see a disturbed individual within a disturbed system, and we are reluctant to ascribe causality to a single factor or individual. Fourth, underdiagnosis may also result from affective disorder with psychotic features being diagnosed as "acute schizophrenia" or "psychotic reaction" (Carlson and Strober, 1978, Engstrom et al., 1978). And, finally there may be real shifts in affective phenomena with age, from more association with behavior disturbances in younger patients toward more classical melancholia in older adolescents (Glasser, 1967; Malmquist, 1971; Toolan, 1971). Recent work with children, however, has claimed that the full syndrome of depression can be observed as early as in latency (Puig-Antich et al., 1978).

This report describes the application to an adolescent inpatient population of criteria for the syndrome of depression which have been established to be useful with adults, The Research Diagnostic Criteria (RDC) (Spitzer et al., 1977). The RDC are in wide use in studies with adults, and have been designed with the intention of defining phenomenologically homogeneous groups, risking false negatives in order to exclude false positives. Persons with depressive features may be classified in several ways: Major Depressive Disorder (MDD), Chronic Intermittent Minor Depressive Disorder (CIMDD), Episodic Minor Depressive Disorder, Labile Personality, or Schizoaffective Disorder. The diagnosis of Major Depressive Disorder requires prominent and persistent dysphoric mood, and five of eight specific symptoms (e.g., weight loss, loss of energy, difficulty concentrating, suicidal thoughts or behavior). Symptoms must last at least two weeks, they must require treatment or impair functioning, and symptoms of schizophrenia must not be present. Patients with this diagnosis are then subdivided accord-

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ing to ten characteristics, described below. Diagnoses of schizophrenia, other psychoses, character disorders, and substance abuse are also detailed in the RDC.

**Method**

Inpatients in the Adolescent Psychiatric Program of the University of Michigan Medical Center were assessed. The unit is one to which severely disturbed adolescents are referred, generally after prior evaluation, attempts at outpatient treatment, or acute hospitalization elsewhere. Patients were interviewed at 8 a.m. for 45 to 60 min, following a semistructured format. The interview was conducted by one of the investigators with one or more co-investigators observing. After establishing rapport, the interviewer focused on the adolescent's present mood state, asked specific questions in order to complete the Hamilton Rating Scale for Depression (HRS), (Hamilton, 1967). The adolescent was asked about mood disturbances, psychotic symptoms, drug use, relationships with peers of both sexes, with family and with other adults, academic function, use of leisure time, and responses to losses or traumas. The Carroll Self-Rating Scale for Depression (CSRS) (Carroll et al., 1973) was completed immediately following the interview. The interviewer and observers independently completed the HRS and a five part Global Rating Scale for Depression (GRS). Observations by hospital staff and therapists were reviewed verbally and through the clinical chart. An RDC diagnosis was then made by consensus of two or more investigators using all available information.

**Clinical Findings**

Thirty-three patients were studied; 84.4% were planned admissions while 15.6% were admitted acutely. Lengths of stay in our sample ranged from 20 to 442 days, with a mean of 202 days. The mean age was 14.8 years. There were 19 girls and 14 boys.

Nine of the 33 subjects (27.3%) met the research Diagnostic Criteria for Major Depressive Disorder (MDD), 6 met criteria for Chronic and Intermittent Minor Depressive Disorder (CIMDD), and none met criteria for Episodic Minor Depressive Disorder. Four (12.1%) met criteria for Schizoaffective Disorder, two manic type and two depressed type. One met criteria for Bipolar Depression with Hypomania (Biopolar 2) and was suspected for having had a manic episode, which if confirmed would have led to a diagnosis of Manic Disorder. The diagnosis of Manic Disorder was also entertained in the two with Schizoaffective Disorder-Manic Type. The remaining eighteen patients received diagnoses of Schizophrenia, Antisocial Personality, General Anxiety Disorder, Labile Personality, or Phobic Disorder.

**RDC Subclassifications**

**Primary vs. Secondary.** To be classified as Secondary, the period of depression must be preceded by one of twelve specified disorders. Four of the nine adolescents with MDD could be classified as Secondary because of meeting requirements for Briquet's Disorder, Phobic Disorder, serious physical illness, or Labile Personality.

**Recurrent Unipolar.** None of the adolescents had clearly had a prior distinct episode of depression. In at least four, however, there was reason to suspect chronic depression, possibly extending from childhood, which had worsened prior to admission, but these were clearly not recurrent episodid depressions.

**Psychotic.** None of those classified as having MDD had any of the three criteria of delusions, hallucinations, or "depressive stupor." These symptoms were assessed with regard to whether any hallucinations or delusions were temporarily concurrent or consistent in content with an episode of affective disorder, as defined by the RDC. It should be noted that two patients were diagnosed as Schizoaffective-Depressed Type. Both were judged to be "Mainly Schizophrenic" rather than "Mainly Affective," as defined by the RDC.

**Incapacitating.** Seven of the nine met the criterion of "Unable to function at work or school . . . for at least one week," although in four of those associated behavior disturbances (e.g., running away, truancy) interfered with function more directly than did dysphoric mood. None met the alternative criterion of "unable to feed or clothe himself or maintain minimal hygiene without assistance."

**Endogenous.** In addition to other symptoms, this designation requires at least one of the following: distinct quality (a feeling different from that following the death of a loved one), lack of reactivity to the environment, and worse mood in the morning. Our procedures did not specifically assess these areas, so we were not able to classify most of our patients. Our data did, however, support classifying one as "definite" and two as "probable" endogenous MDD.

**Agitated.** None of the patients showed Agitated MDD. This diagnosis was entertained in one patient who showed Borderline Features (RDC) and who met other criteria for Borderline Character Disorder (Gunderson, 1975), but who did not meet criteria for MDD.

**Retarded.** The RDC focuses exclusively on retardation in speech, which we did not specifically assess or measure. If gross motor activity as well as slowed, monotonous speech are considered, six showed abnormal psychomotor retardation.
Situational. Seven of the nine patients with MDD were considered to have experienced situations in their families judged analogous to the RDC’s example of “increasing business difficulties” without which symptoms very probably might not have developed, while in three the contribution of “external” situations seemed less prominent. None had experienced a specific traumatic event, such as object loss, within 1 year prior to admission.

Simple. This designation is applied to those who have shown no signs of disturbance in the preceding year other than affective symptoms, as opposed to those whose disorder began with symptoms other than classically depressive ones, such as phobias, panic attacks, or excessive somatic concerns. Two patients met these criteria.


Inter-rater Reliability on Rating Scales

Diagnoses were established by consensus, as described above, so inter-rater reliability regarding the diagnoses themselves was not tested. Inter-rater reliability on the depression rating scales was assessed. The semistructured interview did not yield multiple quantified ratings, as does a structured interview such as The Schedule for Affective Disorders and Schizophrenia (SADS), so reliability was not assessed regarding the content of the interview itself.

It should be emphasized that while the rating scales were helpful in establishing consistency among raters, they did not dictate the diagnosis. They were only part of the data base described above. Discrepancies between depression ratings and diagnoses of depression were expected because the rating scales pertained to the affective state at the time of the interview, which may have been weeks after the affective episode. Furthermore, because they are intended to assess severity of depression rather than to establish the diagnoses, some severely disturbed patients with other disorders also had high scores.

The raters agreed on the five-point Global Rating Scale of Depressed Mood (GRS) exactly or within one point in 27 or 28 interviews, or in 96.4%. In 18 of 28 or 64% there was exact agreement. The one significant disagreement occurred with an agitated, intensely dysphoric, tearful, anxious male who met criteria for Borderline Character Disorder (Gunderson and Singer, 1975). The more experienced rater considered him not depressed. The intra-class correlation coefficient on GRS between interviewer and observer was 0.82.

On the Hamilton Rating Scale for Depression (HRS), which has a maximum sum score of 52 points, raters agreed within five points in 25 or 30 interviews, or in 83%. The intra-class correlation coefficient on HRS scores between interviewer and observer was 0.73. If nondepressed patients are excluded, consistent with the HRS’s purpose of assessing severity of depression rather than making the diagnosis, the correlation coefficient is 0.80. The Carroll Self-Rating Scale for Depression correlated weakly with the HRS (0.58), reflecting both higher and lower subjective rating of depression, in comparison to the clinicians’ HRS scores.

Discussion

A large portion (9 of 33 or 27.3%) of this inpatient adolescent population showed an observable syndrome of depression, very similar or identical to that seen in adults. The validity of their observations cannot be known until studies are done to assess the association of this syndrome with prognosis, response to psychosocial and biological treatment, family history, or biological markers.

It may well be that those with MDD, or some subgroup of those, will be shown to be similar or identical in these respects to adults with the same disturbance of affect. It must be noted that this approach examines only the affective dimension, and that those who were alike in this dimension were very different in other respects such as character style, object relations, or psychodynamic conflicts. Those in the MDD group are more different than alike, and the significance of the common features must still be demonstrated.

Some of the discriminations which are useful in adults were difficult to make with adolescents. The distinction between primary and secondary depression remains uncertain, for while only four met the RDC for “secondary,” all appeared to show some life-long pathogenic role. These chronic and situational distinctions were difficult, for even in the three with MDD who were judged nonsituational, there were potent subtle disturbances in the family’s interaction which may have had a pathogenic role. These chronic and situational problems may be a sampling artifact, for our unit tends to admit patients with disturbed families and long-standing difficulties. Our depressed adolescents appear similar, however, to those of Hudgens (1974), who also observed in an inpatient group a large number of disturbed parents and families, frequent disturbances
in premorbid personalities, and more often a gradual worsening of symptoms rather than an acute onset.

The endogenous subgrouping was not clearly assessed in this work for our procedures did not carefully assess such components as "distinct quality" to the dysphoric mood or the mood's responsiveness to environmental changes. These factors are assessed in the schedule for Affective Disorders and Schizophrenia (SADS), which we have used with a subsequent group.

The differences in "Predominant Mood" should be noted. While observable depression was present in all nine, it was predominant in only one. The three who were "apathetic" were similar but less clearly dysphoric and more listless and lifeless. The three with a "hostile" predominant mood might be considered by some to show "masked depression." They were often defiant and angry, but depression was evident in our interviews and was noted by ward staff at certain times. Such patients with predominantly hostile affect and who present with behavior disturbances may have a somewhat poorer prognosis than others because of difficulties complying with treatment or in sustaining social supports and work.

No patient was considered to have psychotic MDD but four Schizoaffective patients and one Bipolar patient was seen. It was clearly possible to distinguish between those psychotic adolescents with an affective component and those without. This would support Carlson's observation in bipolar patients misdiagnosed in adolescence as schizophrenic that an affective component to the psychosis can be discerned (Carlson, 1978).

While the HRS's reliability appears acceptable, it should be noted that reliance on this scale alone produces both false negatives and false positives. This is largely because, as used by us, it reflects affect during and shortly before the interview whereas the RDC classification was done based on all available information. We cannot yet say whether in the adolescent population there is more discrepancy than in adults between affect in a given interview and overall assessment of affect. Again, consistent with the intended use of the instrument, it appears that with adolescents as well as with adults, the HRS is useful as an index of severity of depression and of change in severity, but it is not sufficient for diagnosis.

There were some specific issues that arose with the HRS. The definitions of "Depressed Mood" focused on "weeping" with less specific mention of other behavioral evidence in posture and facial expression. We rarely saw any overt weeping. Guilt was difficult to evaluate in the adolescents. Consistent with the adolescents' frequent externalization of such issues, we saw patients who gave little verbal evidence of self-reproach but whose behavior suggested guilt, e.g. eliciting punishment or destroying one's favorite possessions. Because of the inference involved, such patients were not rated as showing guilt. While insomnia is assessed, hypersomnia is not, and this may be associated with depression in adolescents. Suicidal feelings were often denied and, in the absence of suicidal behavior, such patients were not rated as being suicidal. Projective techniques or fantasy might reveal such themes. Sexual interest was also very difficult to assess. While one could ask about changes in one's interest in the opposite sex, it was difficult to separate a loss in libido from social withdrawal and anhedonia.

Because of the false negatives with those who denied their depression and the nondepressed false positives, we suggest that use of the CSRS be restricted to assessment of severity of depression in previously diagnosed patients. While the scales are different, this experience raises some question about the validity of a study of depression in adolescents using a self-rating scale alone (Albert and Beck, 1975).

In conclusion, this experience suggests that methods of assessment and classification which have been useful with adults can be reasonably reliably applied to adolescents without modification, though multiple approaches—clinician's rating, self-rating, nursing and school observations are needed to make a diagnosis. With the establishment of reliability in the implementation of this system of sorting our patients, we can now go on to examine its validity in terms of etiology, treatment, and prognosis.

References


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