

Rules for Making Psychiatric Diagnoses in Children on the Basis of Multiple Sources of Information: Preliminary Strategies

Wendy Reich^{1,2} and Felton Earls¹

Inherent in the structured diagnostic interviewing of children is the problem of how to resolve differences between the child's own report and that of the parent about the child. A related problem concerns the use of outside source of information about the child, such as information from the teacher. In this study, the authors review the decision-making process used in the assignment of summary psychiatric diagnoses based on the child and parent reports, as well as a number of other sources of information about the child. Provisional rules for making summary diagnoses of children are presented.

INTRODUCTION

In this paper we report on our initial efforts to develop a replicable strategy to make psychiatric diagnoses when reports on symptoms are obtained independently from parents and children. This problem has naturally arisen in the course of using structured diagnostic interview schedules, such as the Diagnostic Interview for Children and Adolescents (DICA; Herjanic & Reich 1982; Reich, Herjanic, Welner, & Gandhi, 1982), in which the usual procedure is to interview parents and children separately and

Manuscript received in final form May 13, 1987.

This research was supported by NIAAA Center Grant Number AA-03539, and The John D. and Catherine T. MacArthur Foundation, Network III on Risk and Protective Factors in the Major Mental Disorders.

¹Division of Child Psychiatry, Washington University, St. Louis, Missouri 63110.

²Address all correspondence to Dr. Wendy Reich, Washington University School of Medicine, Division of Child Psychiatry, 4940 Audubon Avenue, St. Louis, Missouri 63110.

"blindly." The problem results from the fact that the level of parent-child agreement ranges from low to moderate, with discrepancies not only in the type of symptoms reported as present (i.e., parent reporting oppositional behavior when the child reports depression) but also whether a symptom is present or absent (Herjanic & Reich, 1982; Reich et al., 1982).

For example, in their 1982 study, Reich and Herjanic compared parent-child agreement on diagnoses for 307 mother-child pairs using the kappa statistic. Kappas ranged from .36 to .58 on the following diagnoses: antisocial personality, conduct disorder, enuresis, mixed behavior-neurotic disorder, and possible depression.

For a later study (Welner, Reich, Herjanic, Jung, & Amado, 1987) the DICA was substantially revised. The revisions were based on data from the first study, which showed higher parent-child agreement on questions that were phrased in a concrete, unambiguous way. In addition to changing the wording of the questions, we included carefully constructed probes that could be used if the interviewer felt that the child or the parent was not understanding the original question. That revision resulted in the version of the DICA that is currently in use. A training program for the interviewers was also developed since it was suspected that lack of systematic interviewer training might have contributed to some of the lower kappas in the first study. A mother-child comparison was conducted on 84 mother-child pairs ranging in age from 6 to 17. Forty-seven of the children were 12 and under. As was hypothesized, parent-child agreement in the second study rose considerably. The kappas ranged from .49 for enuresis to .80 for conduct disorder.

It is important to note, however, that high parent-child agreement is not really the goal. For example, in the 1982 study some of the kappas were very low because either the parent or the child reported significantly more frequently than the other. Behavior disorder was reported significantly more frequently by the parents, while neurotic disorder was reported significantly more frequently by the children. Other studies using the DICA have shown that children report significantly more subjective symptoms than their parents report for them (Earls, Smith, Reich, & Jung, in press).

These findings underscore the fact that there are limits to the degree that parents and children can be expected to agree, because they have fundamentally different perspectives. Teachers have their own perspective as well. The goal, then, is not to achieve perfect parent-child agreement but to learn how to evaluate these different sources of information.

For this reason we present a set of provisional rules for making summary diagnoses. We will discuss the contributions of various sources of information about the child and the strengths and weaknesses of this type of interviewing. Our intention is that these preliminary results will stimulate

research activity to evaluate the diagnostic importance of different sources of data in child psychology and psychiatry, because this is a relatively neglected area.

METHOD

Data were obtained from a study of parents and children who had been exposed to severe flooding in rural Missouri. Thirty-two mother-child pairs (64 interviews) were examined for the purpose of making summary diagnoses. The DICA was used to select children with psychiatric disorders (Earls et al., in press). All children were of normal intelligence and were considered to have satisfactorily cooperated during the interview. The children were between 6 and 17 years old at the time of the interview and were equally divided between boys and girls. Of the 32 children, 13 were between 6 and 13 years of age while 19 children were 13 and older.

The DICA is a fully structured diagnostic interview that is keyed to criteria described in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980). There are parallel versions for the child and the parent (DICA and DICA-P), which ask the same questions in the same sequence, using the same wording whenever possible. Although designed primarily for use by trained lay interviewers with little or no clinical experience, it has also been used by clinicians. Not only are interviewers "blind" to information from the "other" interview, depending on whether or not they are interviewing the parent or the child, but they are also kept blind to other sources of information about the child. In this particular study, the other sources were school reports, which included grades and the results of IQ and achievement tests, the teacher's version of the Child Behavior Checklist (Achenbach, & Edelbrock, 1981), and information from a set of structured interviews designed to tap psychosocial functioning. This second set of interviews is called the Home Environment Interview for Children (HEIC and HEIC-P; Reich & Earls, 1984). As with the DICA, separate parallel versions exist for parents and children. Areas covered by the interview include family and peer relationships as well as school adjustment.

Trained interviewers administered the interviews in the children's homes. Following each session, the interviews were edited to ensure that symptoms had been correctly coded and that diagnostic algorithms keyed to DSM-III criteria, which were built into the structure of the interview schedule, were adhered to. Once the editing of the interviews had been completed, the two authors set up a review process of each mother-child pair to resolve diagnostic discrepancies. At the beginning of this effort we

established two working rules: (1) The child's age would be taken into account in judging the credibility of their reports (older children greater than younger children), and (2) information from the teacher's report, the HEIC, and the HEIC-P would be used for evidence of the child's impairment in school and social adjustment. In principle, we proceeded throughout the review of this material with the rule that a summary diagnosis could be assigned only when there was (1) a DSM-III diagnosis from either the DICA or the DICA-P, and (2) evidence of impairment from the other sources of information about the child.

Summary diagnoses based on all the available data were made by the authors. As we made these diagnoses, a set of provisional rules were established to see if they could be consistently applied to the available data. This was done by constructing a "diagnostic path" for each possible diagnosis (see Figures 1 and 2). These particular paths were chosen because

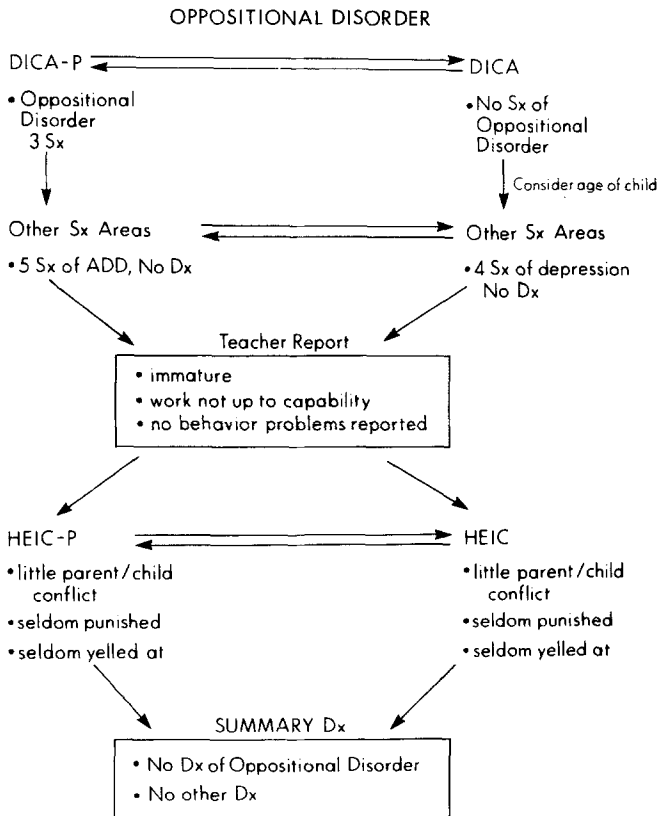


Fig. 1. Diagnostic path leading to a summary diagnosis in a 14-year-old boy.

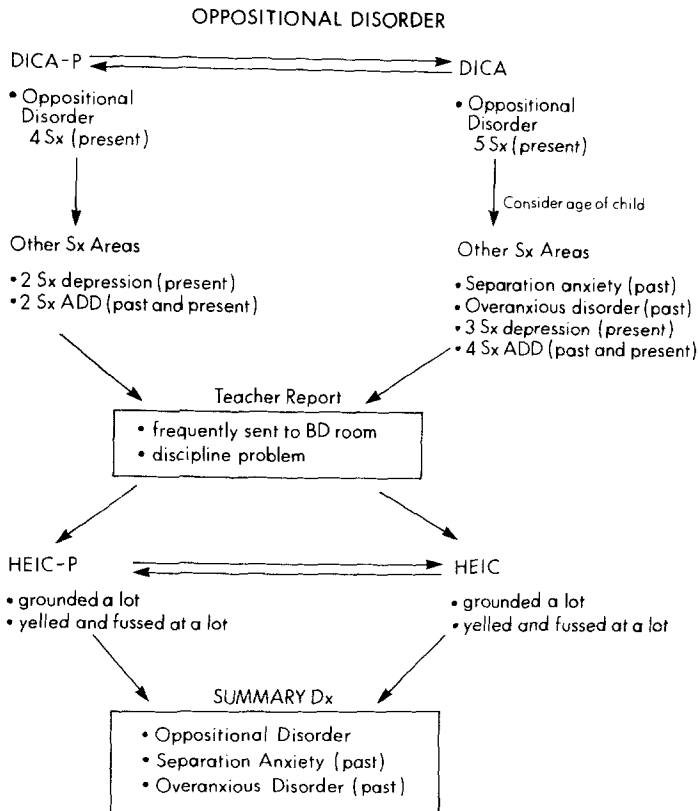


Fig. 2. Diagnostic path leading to a summary diagnosis in a 16-year-old girl.

they demonstrate how the rules work both in assigning and in not assigning a particular diagnosis to a child.

Path excursion begins with a diagnosis reached on either the DICA or the DICA-P. Three steps are then followed. First, a comparison is made between the two interviews, and similarity of information on symptoms and diagnoses is assessed. Consideration is given to symptoms in closely related, as well as the same, diagnostic categories. At this point both interviews are evaluated in their entirety. Because of the evidence on test-retest studies showing a higher level of reliability among older children than among younger children (Edelbrock, Costello, Dulcan, Conover, & Kala, 1986), the age of the child was always taken into consideration in making summary diagnoses.

The second step is to examine school and teacher reports for data supporting either the parent or child interview. The third step reviews informa-

Table I. Total Number of Summary Diagnoses Made from Parent and Child Interviews

Diagnosis	Total possible Dx parent only reporting	Total possible Dx child only reporting	Total possible Dx both diagnoses	Total possible diagnoses	Summary diagnosis
ADD	6	3	6	15	7
Oppositional disorder	7	2	7	16	7
Conduct disorder	2	4	2	8	8
Alcohol/substance abuse	0	4	0	4	4
Depression	2	2	0	4	4
Adjustment disorder	0	1	3	4	4
Separation anxiety disorder	0	9	2	11	11
Overanxious disorder	0	9	2	11	8

tion about the child's home, school, and social environments from both the HEIC and the HEIC-P. Again, the search is for supporting evidence. This third step results in a final decision about the child's diagnosis.

RESULTS

Rules were devised for the following DSM-III categories: attention deficit disorder, oppositional disorder, conduct disorder, alcohol and drug abuse, major depression, separation disorder, and overanxious disorder. The rules and recommendations from these data are discussed by diagnostic category in the Appendix.

Attention Deficit Disorder

There were 15 instances in which either parent or child reported enough symptoms to warrant a diagnosis of ADD. A total of seven summary diagnoses were made (see Table I). The DICA requires a minimum of six symptoms plus onset below 7 years of age for a diagnosis. In reviewing the diagnostic paths, it was noted that in all but one of the summary diagnoses of ADD, a minimum of eight symptoms were scored positive in both parent and child interviews. In most of the summary diagnoses, parents and some children reported nine or more symptoms. In all these cases a few behavior problems related to oppositional or conduct disorder categories were also found.

A summary diagnosis of ADD was never made without examining the HEIC and the HEIC-P for information such as family and peer relation-

ships and school performance. It was felt that high academic achievement and relatively few relationship problems would be incompatible with a diagnosis of ADD. If a teacher report was available, it was also consulted. When both parent and child interviews recorded symptom counts of eight or more, poor academic records and relationship difficulties were inevitably found.

There were no cases in which parents reported a very large number of symptoms and the children reported few or no symptoms at all. A common pattern showed the parent reporting six or seven symptoms and the child reporting three or four. Typically in these cases, evidence of significant impairment in family or peer relationships or in academic performance was found. The one exception to this was the case of a 6-year-old girl whose mother reported six symptoms (just enough for a DICA diagnosis). The child reported only five symptoms. A diagnosis of ADD was finally assigned largely on the basis of the teacher's report, which cited a high number of hyperactive symptoms as well as academic underachievement. Both the HEIC and the HEIC-P noted relationship difficulties with parent and peers.

To summarize the findings with respect to ADD, in six of the seven cases that were judged to be clinically positive (the seventh case was the one just described), both parents and children reported more than enough symptoms to meet DSM-III criteria. Although the children did not report as many symptoms as their parents, the minimum number of symptoms reported by a child was eight. Older children reported more symptoms than younger ones, and younger children did best with concrete questions and with probes. It is clear from these data that children report enough symptoms for their reports to be seriously considered in making a final diagnosis. Perhaps more important, the diagnostic paths for ADD also show the need for severity and impairment criteria, in light of teacher reports and other information about the child's social functioning. This kind of information is most important when parents and/or children are reporting just at threshold level.

Oppositional Disorder

By DSM-III criteria, oppositional disorder would not be diagnosed in the presence of conduct disorder, but for the purposes of this analysis the two disorders have been kept separately. Out of the 16 possible cases of oppositional disorder (either parent or child or both reported a sufficient number of symptoms to meet criteria), positive summary diagnoses were made in 7 cases. Five of those children were also diagnosed as having conduct disorder. In all 7 cases in which a summary diagnosis of oppositional disorder was made, the diagnosis was reported by both parents and

children. Analysis of the diagnostic paths show several possible reasons for this.

In the cases in which both parents and children agreed about the presence of oppositional disorder in the child, they both reported four or more symptoms. The available teacher reports cited many symptoms of the stubborn, negativistic behavior that characterizes children with this disorder. Data from the HEIC and the HEIC-P confirmed parent-child conflict and discipline problems for all seven children. In the nine cases in which a positive summary diagnosis was not made, there was no instance in which parents and children agreed upon its presence. In some cases, parents reported many symptoms and the children reported none, or not more than one symptom. The teacher and HEIC/HEIC-P data also did not produce evidence in support of a diagnosis in these cases.

Several possible explanations exist for why parents report oppositional symptoms in the absence of endorsement of such problems by their children. First, it may be that what they perceive as irritability and sullenness in the child are really symptoms of another disorder. Second, if parents are themselves disturbed or under a great deal of stress they may become irritated by what are fairly mild behavior problems. Finally, part of the problem with the reporting of oppositional disorder may lie in the nature of the diagnosis. The DSM-III criteria for oppositional disorder suffer from a lack of clarity as to what is meant by the individual symptoms. For example, it seems relatively easy for almost any willful adolescent to meet DSM-III criteria. Perhaps the revised criteria for oppositional disorder in DSM-III-R will solve this problem.

Conduct Disorder (Aggressive and Nonaggressive)

Examination of the diagnostic paths of the possible diagnoses of conduct disorder showed that a diagnosis could be made when either the parent or the child reported enough symptoms to meet DSM-III criteria. The reason we were confident about making these diagnoses given the report of only one member of the parent-child pair was that the evidence of the child's impairment, other reported behaviors consistent with conduct disorder, and information from teacher reports clearly justified such a decision. In cases where children reported sufficient symptoms for a diagnosis and parents did not, we believed that the parents were unaware of the extent of their children's delinquent behavior. In cases where parents reported conduct disorder and their children did not, it was assumed that the children were not telling the truth. It did not seem reasonable to assume that many parents would be reporting that their children had been suspended from school, or had been in trouble with the police, if these events had not

occurred. The concrete and serious nature of conduct disorder symptoms makes them believable enough to be accepted as true, even if only one person, the parent or the child, acknowledges that they are present. In all cases in which a summary diagnosis of conduct disorder was made, evidence from the teacher's report and the HEIC/HEIC-P supported the decision.

Alcohol and Other Substance Abuse

There were two cases of alcohol abuse and two cases of drug abuse in this sample. In all four cases the diagnoses were made from the child's report only. The child's report alone was accepted as sufficient evidence for a diagnosis for the same reasons used in selecting criteria for conduct disorder—namely, that severe and concrete symptoms would not be likely to be mistaken for something else by the parent. In these cases the HEICs and HEIC-Ps reported tumultuous home lives, alcohol and drug abuse among some parents and siblings, multiple divorces, and a few instances in which parents or siblings had been in trouble with the law.

Major Depression/Adjustment Disorder with Depressed Mood

With respect to major depression, parents and children agreed in two cases, and in two cases the diagnoses were made from the child's interview alone. All four children were between the ages of 12 and 15. They reported more than enough symptoms and also met the 2-week-duration criterion for this disorder.

The four children with adjustment disorder all had symptoms that were flood-related. In three cases these symptoms were reported by both the children and their parents, with children reporting more symptoms than parents.

In one of the cases with a summary diagnosis of adjustment disorder, criterion for the diagnosis was based on the report of a 6-year-old girl whose mother reported no symptoms for this diagnosis. The main reason we accepted the child's report as valid was because of the clear relationship between the symptoms and the flood. She was also able to report the duration of the symptoms, most of which lasted for the entire 6-week period between the flood and the time the family moved back into their house. (The child also reported a number of other symptoms of anxiety and worry.) The teacher report described her as anxious. The HEIC report from both child and parent indicated that the mother did not spend much time with the child, which may in part account for the mother's lack of awareness of just how upset the child was during the period just following the flood.

A number of children, particularly those between 6 and 9, reported symptoms but could not tell when they had happened or how long they lasted. Other children in that age group reported symptoms positively, but the probing clearly showed that they were below criterion and often did not last more than an afternoon. While it is likely that these children were not depressed, it is clear that younger children have considerable difficulty reporting criteria for depressive episodes. Except in cases such as that of the 6-year-old girl presented above, it would be unwise to take their interviews at face value.

Separation Anxiety and Overanxious Disorder

Eleven summary diagnoses of separation anxiety were made. In only 2 cases did the parents' reports yield a sufficient number of symptoms to make a diagnosis, and in both these cases the child's report agreed with that of the parent. In the remaining 9 cases the diagnosis was made from the children's report alone. Of the 11 cases, 6 were between the ages of 6 and 12, and 5 were between 13 and 16. All of the adolescents reported that these disorders were in the past. It was our impression that even 6- and 7-year-olds reported accurately on these questions because they were quite clear and specific. All of the children with this disorder reported a number of other emotional symptoms. The teacher reports and the HEIC and HEIC-P for the 6 children currently experiencing this disorder reported school achievement below ability and little, if any, participation in extracurricular activities. All of the teacher reports noted anxious and depressed symptoms. It was surprising to note that 9 out of the 11 parents of children with a summary diagnosis of separation anxiety reported few, if any, symptoms in this area.

Overanxious disorder presented a similar picture. Eight summary diagnoses were made. In two of these, both parent and child reported the diagnosis. The other six were based on the child's report only. In all eight cases the evidence from the child's report was so clear-cut that there was no problem in accepting it at face value. In three of the eight cases, teacher reports were available, and they all reported a large number of depressed and anxious symptoms. In three cases of children who reported the minimum number of symptoms required for a diagnosis, there was no real evidence of impairment in the HEIC or HEIC-P. This does not mean that these children did not have the worries they reported, but that the available evidence was not sufficient to warrant that a diagnosis of overanxious disorder be made with confidence.

As with depression, all the children reported far more overanxious symptoms than did their parents, particularly in connection with the flood (Earls et al., in press).

DISCUSSION

The most important finding of this study is to show that in most cases the diagnosis can actually be made from the child's reports alone—i.e., conduct disorder, alcohol and other substance abuse, depression for older children, and separation and overanxious disorder for all ages. These data show that even in cases when a diagnosis cannot be made from the child's interview, children as young as 6 still report emotional problems of which parents appear to be unaware. All of this emphasizes that the child's report is not just supportive data for verifying the adult report but that it provides invaluable information about the child's problems that would otherwise go undetected. In fact, we might say that information obtained from the child constitutes the single most important source of data in diagnostic decision making and that all other sources serve to confirm and possibly elaborate the child's report or disconfirm it.

Edelbrock et al. (1986) point out that as children grow older the level of parent-child agreement decreases, presumably because teen-age children are able to conceal more of their activities from their parents. In this population, most of the cases of conduct disorder and all of the alcohol and substance abuse cases would have gone undetected if the children had not been interviewed directly.

Some researchers recommend that the same person interview both mother and child and that the mother be interviewed first (Orvaschel, Weissman, Padian, & Lowe, 1981). Because children are able to report such diagnoses as separation anxiety and overanxious disorder as well as symptoms of depression on their own, it is possible that knowledge of the mother's report might bias the interviewer in his or her questioning of the child about subjective symptoms. It might also blur distinctions between the sources of the data that are important to keep separate, particularly for research purposes.

Interviewing children is not without its problems. In questioning children about depression, it is often difficult to decide if they truly understand some of the emotional states associated with this disorder, the time duration of symptoms, and the need for the symptoms to occur together in defining a distinct episode. One way to deal with these difficulties is to search for evidence of the criteria in the parent interview, but because

parents tend to report fewer subjective symptoms than their children the supporting evidence is often not present. It is important to improve interview techniques, particularly for preadolescents. We are currently working on this problem by developing a series of sensitive probes for young children, and by making an effort to anchor symptoms to events such as "the Christmas holidays," "most of the summer," "all the time your mom was in the hospital," etc.

While the presence of a teacher's report was useful in making all the summary diagnoses, it was particularly important for the behavioral diagnoses. This is illustrated by the example given previously, of the 6-year-old girl whose diagnosis of ADD rested largely on the teacher report, the HEIC, and the HEIC-P. There were three cases in which a child had a diagnosis of ADD or oppositional disorder based on the child interview, the parent interview, or both sources for whom a summary diagnosis was not made because of the unavailability of a teacher report. Had such a report been available, it would have provided sufficient information to enable us to make the relevant diagnoses, or forced us to decide that the behavioral disturbance was subclinical. Information from the teacher reports was also helpful in diagnosing the emotional disorders. Teachers reported symptoms of depression and anxiety, as well as such objective data as a drop in school performance or a withdrawal from friends and activities. For these reasons, we recommend the use of school reports whenever possible in the assessment of childhood diagnoses. For those children about whom teachers' reports are unavailable, questions concerning the children's behavior and performance at school, as well as their relationships with their peers, should be asked of both parents and children.

In their study on the reliability of interviewing with the Diagnostic Interview Schedule for Children (DISC and DISC-P), Edelbrock et al. (1986) show that test-retest agreement for children 6 to 9 years old was lower than for any other age group, and they suggest that the reports of the 6- to 9-year-olds may be too unreliable to be taken at face value. Their study also shows that part of the reason for the lack of reliability was a large drop in the number of symptoms reported in the retest. The authors suggest that a "learning, or practice" effect may be responsible for the drop, explaining that with the second interview the children may have discovered that answering "no" to a question speeds up the interview.

This demonstrates not so much that the children are reporting unreliably but that the interview itself is boring. Perhaps steps should be taken to try and make the interview more interesting for this age group. Eventually, it might be possible to develop a computerized interview with graphics and sound effects that might help sustain the attention of these young children.

Despite the problems involved with interviewing younger children, we found that our provisional rules, which take these problems into account, could be applied equally well to younger and older children, and just as well to boys as girls. Although further studies need to be done on larger population samples, it is clear that there are instances in which the child's report is sufficient for a diagnosis, others in which both parent and child reports are needed, and others in which impairment criteria from another source are necessary to confirm a diagnosis based on a marginal number of symptoms. In most cases information from school and teacher reports and descriptions of family and peer relationships were extremely useful in making diagnostic decisions. The development of structured interviews has been an important contribution in making the diagnostic process more standard and systematic. But the problems involved in decision strategies based on evaluating multiple sources of data about a child make this process more complex than the comparable exercise in adult psychiatry. We suggest that the next phase in the development of this methodology should be the development of computer programs that incorporate these rules.

A problem not addressed in this paper concerns the finding that structured interview methods tend to produce multiple diagnoses in children. This is discrepant from clinical experience in which a single diagnosis is typically highlighted for treatment and exclusion rules are used. When more is known about how various informational sources are best combined in diagnostic decision making, we should be in a better position to evaluate this problem.

APPENDIX

Criteria for Summary Diagnoses—DSM-III

1. Attention Deficit Disorder

A summary diagnosis for attention deficit disorder requires a minimum of 8 symptoms from the parent report, and 6 from the child, as well as an age of onset before 7 years. It also requires:

evidence from a teacher report of:

inattention

disruptive behavior

academic achievement below intellectual capacity

evidence of peer difficulties

If parent report shows at least 6 symptoms, and child's report shows 4 or 5, evidence from the other sources must be compelling in order to diagnose ADD.

Definite ADD: 8 symptoms: adult
 6 symptoms: child
 teacher report: inattentive
 disruptive behavior
 working below capacity
 peer difficulties

Possible: 6 symptoms: adult
 3-5 symptoms: child
 teacher report: at least 2 out of 3 behaviors listed;
 at least minor peer difficulties

2. Oppositional Disorder

The requirements for a summary diagnosis of oppositional disorder include:

- a minimum of 2 symptoms for both the parent and the child report
- a duration of 6 months or longer
- a teacher report showing a pattern of negativistic and defiant behavior, such as not turning in homework, or talking back to the teacher or principal.

Oppositional disorder may be diagnosed from either parent or child interview, in the face of compelling evidence from the other sources.

3. Conduct Disorder

A diagnosis of conduct disorder can be made in the following instances:

- 2 or more symptoms from either parent *or* child report
- at least one other source reporting *delinquent* behavior on the part of the child

4. Alcohol or Substance Abuse

Pattern of pathological use as described in DSM-III from either parent or child report.

5. Major Depression (Adjustment Disorder)

For children of 13 and older, major depression and adjustment disorder with depressed mood can be diagnosed from the child's interview alone if:

- the child meets the diagnostic criteria specified by DSM-III, that is: dysphoric mood or "loss of interest or pleasure" in all or almost all usual activities or pastimes
- at least 4 of 8 symptoms listed in DSM-III present with duration of at least 2 weeks
- evidence of impairment, such as grades dropping, staying away from friends, markedly increased anger, and irritability with family and friends.

A diagnosis of major depression or adjustment disorder would normally not be made from the parent's report alone, unless the child reported just under threshold, or the additional evidence was extremely compelling.

Further work must be done in order to establish rules for children 12 and under.

6. Separation Anxiety and Overanxious Disorder

A diagnosis of separation anxiety can be made from the child interview alone, because the questions for that particular section are so clear and concrete that it would be difficult for even a very young child to misunderstand them. However, the parent report, if available, should contain some evidence of depressive or anxious symptoms. Despite the concreteness of the question, however, severity probes, asking how often this happens and does the child miss school or social events because of this problem, should be asked.

It is reasonable to assume that separation anxiety could also be diagnosed from the parent report alone because of the concreteness and clarity of the questions. If the child's report contains few or no symptoms, it could be assumed that the child is underreporting because of embarrassment or some other reason. Our data, however, contained no such cases.

The requirements for separation anxiety as derived from our data are: the DSM-III requirements for the disorder based on the child's report some symptoms of depression or anxiety in the parent report severity to be established either from other sources or if questions are written into the interview

REFERENCES

- Achenbach, T., & Edelbrock, C. (1981). Behavior problems and competencies reported by parents of normal and disturbed children aged 4 through 16. *Monographs of the Society for Research in Child Development*, (Serial No. 188).
- American Psychiatric Association. (1980) *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, D.C.: Author.
- Earls, F., Smith, E., Reich, W., & Jung, K. (in press). *Psychopathological consequences of a disaster in children: Findings from a pilot study incorporating a structured diagnostic interview*.
- Edelbrock, C., Costello, A., Dulcan, M. K., Conover, N. C., & Kala, R. (1986). Parent-child agreement on child psychiatric symptoms assessed via structured interview. *Journal of Child Psychology and Psychiatry*, 27, 181-190.
- Herjanic, B., & Reich, W. (1982). Development of a structured psychiatric interview for children: Agreement between child and parent on individual symptoms. *Journal of Abnormal Child Psychology*, 10, 307-324.
- Orvaschel, H., Weissman, M., Padian, N., & Lowe, T. L. (1981). Assessing psychopathology in children of psychiatrically disturbed parents. *Journal of the American Academy of Child Psychiatry*, 20, 112-122.

- Reich, W., & Earls, F. (1984). *Home Environment Interview for Children* (parent and child versions). St. Louis, Missouri: Washington University.
- Reich, W., Herjanic, B., Welner, Z., & Gandhi, P. R. (1982). Development of a structured psychiatric interview for children: Agreement on diagnosis comparing child and parent interviews. *Journal of Abnormal Child Psychology*, *10*, 325-336.
- Welner, Z., Reich, W., Herjanic, B., Jung, K. G., & Amado, H. (1987). *Reliability, validity and parent-child agreement studies of the Diagnostic Interview for Children and Adolescents (DICA)*. *Journal of the American Academy of Child and Adolescent Psychiatry*, *26*, 649-653.