Borderline and Schizotypal Disorders in Children and Adolescents

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Until recently, research on borderline disorder in children has sought the common denominator of the symptoms. In recent years there have been attempts to circumscribe the definition with the help of DSM-III criteria and the DIB. This approach appears fruitful. The scanty data on schizotypal children suggest that the validity of this diagnosis in childhood should be investigated. In adolescence it is possible to discern those with borderline and schizotypal disorders whose symptoms meet both DIB and DSM-III-R criteria respectively. No data exist, however, concerning the predictive validity of such disorders in adolescents. Classification on an empirical basis is advocated in order to refine the diagnosis of these and related disorders in children and adolescents.

In most child and adolescent psychiatric handbooks only a modest paragraph is devoted to borderline disorders. Some textbooks deal exclusively with borderline disorders in children (e.g. Noshpitz, 1979); others mention only those in adolescents (e.g. Rutter & Hersov, 1985). It is often stated that the disorder is not uncommon, and certainly occurs more frequently than autism, a disorder described extensively in almost every manual.

Evidence is growing that it may be crucial for the planning of a treatment programme for disturbed youngsters to recognise this disorder. The suicide rate in depressed adolescents is elevated when they exhibit a borderline disorder as well (Friedman et al., 1983). Behavioural therapy with conduct-disordered adolescents is complicated by a coexisting borderline personality disorder (Bartels, 1986). Such a disorder in adolescents alerts the clinician to severe acting out, unmanageable regression and countertransference in the future (Masterson, 1985; Lewis, 1986). In hospital settings treatment of these adolescents may require strict limit setting (Steinberg, 1983).

Moreover, defining borderline disorders of children and adolescents is particularly complex because the question has not been answered as to whether it is the same disorder in both groups. This is partially because descriptions of borderline children come primarily from child psychiatric literature, while those relating to adolescents are mainly derived from the field of adult psychiatry. In the literature on adolescents little connection is made with data from child psychiatric literature, and vice versa.

The concept of borderline in adult psychiatric literature has taken on a more limited meaning since the introduction of DSM-III (American Psychiatric Association, 1980) in which, in comparison with only a passing mention in DSM-II, the concept received ample attention. Spitzer et al.'s (1979) initial suggestion that there were two borderline categories—one group of patients related to schizophrenics genetically and in terms of symptoms ('borderline schizophrenia'), and another group whose personality is characterised by instability and vulnerability in accordance with the 'borderline personality organization' of Kernberg (1975) - was confirmed in a survey of 808 American psychiatrists. Thus, in DSM-III they differentiated between schizotypal personality disorder (SPD) and borderline personality disorder (BPD). Criteria for the diagnosis BPD were derived largely from the conclusions of Gunderson & Singer's (1975) extensive review of the literature, and these criteria in DSM-III-R (American Psychiatric Association, 1987) were little changed (see also Widiger et al., 1988).

Several other diagnostic instruments have been developed, with criteria related to those of DSM-III, to identify patients with BPD. The best of these, the Diagnostic Interview for Borderline Patients (DIB; Gunderson et al., 1981), is a semistructured interview with criteria that are largely the same as those of DSM-III; although it also stresses the importance of short-lived psychotic manifestations.

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Experience with DSM-III-R criteria for children and adolescents is still limited.

In a review on borderline personality of adults, Tarnopolsky & Berelowitz (1987) concluded that: "What before was a vague, mythical or muddled concept has achieved in many ways the significance of other commonly used psychiatric disorders." However, data on descriptive and predictive validity for the borderline concept in children and adolescents are still so scarce that empirically based pronouncements such as these cannot be made.

In this article we chart the available data on borderline and schizotypal pathology in children and adolescents. We exclude data concerning treatment, and we formulate some conclusions regarding the usefulness of these diagnostic categories in children and adolescents. Moreover, we formulate recommendations with regard to research in this area.

In children and adolescents, it is permissible to diagnose personality disorders when they show persistently, over a long period of time, the essential characteristics of any personality disorder described in DSM-III-R (Lewis, 1986). Children and adolescents with long-lasting borderline or schizotypal symptoms surely exist, but in individual cases, it is difficult or even impossible to predict which symptoms will persist. Data on the vicissitudes of these disorders in children and adolescents are scarce. For that reason we prefer to speak of 'borderline disorder' and of 'schizotypal disorder' in these age groups, although what we mean by these concepts is the presence at any given moment of symptoms that are described in DSM-III-R under BPD and SPD, respectively.

Borderline disorders in children

Symptoms

Until the end of the 1970s, we understood borderline children to be those whose symptoms - certainly at first glance - were extremely heterogeneous. In the early 1980s, however, Vela et al (1980, 1983) listed and grouped the symptoms described in seven important publications on borderline children and found agreement among six of the authors with regard to six of the 19 groups of symptoms (see Table 1). Furthermore, Bemporad et al (1982) inventoried the symptoms of 24 latency-age patients diagnosed as borderline. The areas they indicated as characteristic of borderline children are reasonably similar to those described by Vela et al (1983) (see Table 1).

Table 1: Borderline symptoms in children

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<td>Disturbed interpersonal relationships</td>
<td>Fluctuation in functioning</td>
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<td>Disturbances in the sense of reality</td>
<td>Nature and extent of anxiety</td>
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<td>Excessive, intense anxiety</td>
<td>Disturbances of thought</td>
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<tr>
<td>Excessive and severe impulsive behaviour resulting from minimal provocation or frustration</td>
<td>Consent and processes</td>
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<tr>
<td>'Neurotic-like' symptoms</td>
<td>Lack of control</td>
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<td>Uneven or distorted development</td>
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From a theoretical viewpoint it is remarkable that the researchers repeatedly attempted to uncover the common denominator of the heterogeneous symptoms rather than asking themselves if there were perhaps more than one group. This was probably because borderline children were designated as such predominantly by child psychiatrists with a psychoanalytic orientation. The functioning of borderline children, especially in the area of object relationships, was thus approached from one theoretical angle, in which the symptoms were grouped together and interpreted as an arrest in development on the level of separation-individuation (e.g. Chethik, 1979). By placing the accent on abstract, metapsychological terms, the divergence among characteristics of these children on a phenomenological plane was concealed. Pine (1974, 1986) for example, states that: "... the concept borderline is more like the concept 'transference' or 'defense' or 'regression'. While we use these terms so often that we may think of them as having thing-quality, they are not things; they are terms that serve communication through consensus. Thus the term borderline is a concept that means only what we say it means ... ."

In the same period, authors began to wonder if it were possible to classify borderline children with criteria of DSM-III. Bradley (1979), in her research on the aetiology of borderline symptoms in adolescents and children, employed the criteria developed by Gunderson & Singer (1975) (forerunners of DSM-III criteria) for diagnosing borderline adults. In a later survey (Bradley, 1981) of American child and adolescent psychiatrists, she found that a large number of these considered that the 'adult criteria' of Gunderson & Singer were applicable to adolescents and - to a lesser degree - to children. With regard to the children these criteria applied, for instance, to "loose thinking in unstructured situations" and 'relationships that vacillate between transparent superficiality and intense dependency.'
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Also Vela et al (1983), who is true attempted to ascertain the common characteristics of borderline children, tested their formulated common characteristics against the DSM–III criteria. They concluded that these characteristics agreed with the criteria for SPD (in adults) and that considerable overlap exists with the criteria for BPD (in adults) and pervasive developmental disorder.

Petti & Law (1982), the first researchers to carry out small-scale empirical research among children in this area, tested the data from 10 children (aged 6–12 years) in whom borderline psychotic features were diagnosed against a number of DSM–III criteria: SPD, BPD, and pervasive developmental disorder. The data on five of the ten children satisfied the criteria for SPD; the data on the other five children satisfied the criteria for BPD; and in both groups two children met the criteria for pervasive developmental disorder. The most distinctive features of the schizotypal children were magical thinking with bizarre fantasies and preoccupations, odd speech, and inadequate control over anger; affective instability; and physically self-damaging acts.

On the other hand Gualtieri et al (1983) found that none of their 16 children (aged 6–13 years) who were diagnosed as borderline satisfied the ‘adult’ DSM–III criteria. Greenman et al (1986) retrospectively investigated the material relating to 86 children aged 6–12 years using a version of the DIB. Of these children, 57 had been admitted because of suicidal tendencies and 29 showed serious psychopathology of a non-psychotic nature. Twenty-seven children (31%) met DIB criteria for BPD. The authors concluded that, on the one hand, there was a certain conformity with the syndrome as defined according to adult criteria; on the other hand, however, the criteria for adult BPD encompassed no clear, significant syndrome in this group of children. Greenman et al (1986) indicated that it is important in future research to include the presence of anxiety and fearfulness or phobic behaviour, which in their study had not been the case. Unfortunately, the analysis of the data limited itself to borderline diagnosis and the material was not examined for schizotypal characteristics.

Aetiology

With regard to the aetiology of borderline disorder in children a number of divergent conceptions exist. In the psychodynamically orientated literature the aetiological emphasis is usually placed on the experiences of very early traumas: “It is the child’s experience of the stimulus which must be emphasized; the stimulus itself may not be externally identifiable as traumatic” (Pine, 1986). This gives rise to developmental defects. For instance, the development of trust in the caretaker is impaired and the evolution of panic anxiety to signal anxiety fails to occur. This leads to the development of ultimately maladaptive survival mechanisms for coping (Pine, 1986). This opinion is supported by the reported occurrence of physical abuse and neglect in families where borderline children grew up (Greenman et al, 1986; Bemporad et al, 1982).

Results supporting early separations as a causative factor in borderline pathology are contradictory: Bradley (1979) found them but Greenman et al (1986) did not in children diagnosed according to the criteria of Gunderson & Singer (1975) and the DIB respectively. Other investigators looked for organic impairment as a causative factor. Bemporad et al (1982), in children diagnosed as borderline with their own criteria (Table 1), frequently found poor coordination, perceptual motor difficulties, hyperactivity, and non-specific electroencephalogram tracings. Cohen et al (1983) point to the overlap between borderline disorder and attention-deficit disorder (ADD) and consider “that the ADD and borderline syndromes might represent, at least in part, similar clinical entities with some common underlying biological dysfunctions”. However, Greenman et al (1986) did not encounter more frequent neurological deviations in borderline children than in their control group.

We previously stated that the criteria of Vela et al (1983) overlap considerably with the criteria of pervasive developmental disorder and we mentioned empirical research in this area (Petti & Law, 1982). Borderline disorder of children might be placed within the DSM–III–R category ‘pervasive developmental disorder, not otherwise specified’, but because of the wide definition of this category, diagnostic clarity would not be furthered in this way.

In clinical discussions the opinion is heard that autistic disorders and borderline disorder constitute a continuum. This would imply a constitutional aetiology of borderline disorder, including the same defects that are supposed to underlie autism (for the aetiology of autism, see e.g. Rutter & Schopler, 1987). However, there is no empirical research to support this opinion.

Follow-up studies

We are aware of only one follow-up study of a small group of borderline children, on whom more or less
objective criteria were used in diagnosis. Kestenbaum (1983), in a 10- to 25-year follow-up of seven children who in the latency age were diagnosed as borderline, found that in all cases the children's symptoms satisfied at least five of the six consensus criteria formulated by Vela et al (1983). The classification of psychiatric problems in the adult years was very divergent (schizophrenia, schizotypal personality disorder, schizoid personality disorder, schizoaffective disorder, bipolar disorder, borderline personality disorder, and anxiety neurosis).

Borderline disorders in adolescents

Symptoms

A fairly extensive literature on borderline pathology in adolescents also exists, generally in the psychoanalytic tradition; in many respects it derives from and builds upon work with adult borderline patients (e.g. see Kernberg, 1975). Data concerning young adolescents are scarce. Meissner (1984), for example, states that the borderline diagnosis in early adolescence is vague and indistinct. In his opinion the symptoms later in adolescence are progressively more similar to those of adult borderline patients. According to Rinsley (1980) the borderline pathology at the onset of adolescence borders on psychosis, while the symptoms towards the end of adolescence resemble those of adult borderline patients not characterised by (longer-term) psychotic symptoms.

Masterson (1985), who in particular applied himself to the diagnosis and treatment of borderline pathology in adolescents, also mentions the possibility of transient psychotic episodes, notably in the reaction to separation. He does not consider this as characteristic of the borderline adolescent, and establishes acting out — in the broad sense — as central to the symptoms of these adolescents. Under symptoms he lists boredom, restlessness, difficulty in concentrating in school, hypochondriasis, excessive activity, and forms of antisocial behaviour. He also mentions passive-aggressive, obsessive-compulsive and schizoid symptoms, anorexia nervosa and flight in this connection. In his opinion a clinging, dependent relationship with an adult sexual partner is also typical.

Only a few studies of adolescents used DSM-III criteria or the DIB. McManus et al (1984a), in a group of 71 severely delinquent adolescents, found 26 cases of borderline personality according to DSM-III criteria, of whom 73% satisfied DIB criteria as well. From this investigation a picture emerges of the 'delinquent borderline adolescent' as one "... who is superficially socially appropriate, though unable to produce any sustained achievement in work or school, is affectively labile, self-mutilative, prone to brief episodes of paranoid ideation and likely to be involved in relationships where dependency needs are great, but denied and where hostility and instability are prominent". Similar results were obtained by McManus et al (1984b) when they applied DIB and DSM-III criteria to 48 adolescents admitted to hospital.

Yanchyshyn et al (1986) tested both the DIB and DSM criteria on 44 clinically admitted adolescents aged 13-18 years. The DIB was carried out at admission and led to borderline diagnoses in 12 adolescents. At discharge (on average after three months) DSM-III diagnoses were made. Of the 12 DIB positives, eight received the DSM diagnoses of BPD at discharge. In addition, there were two other patients diagnosed as BPD at discharge who had been DIB negative upon admission.

Aetiology

There is virtually no available empirical research on the aetiology of borderline disorders in adolescents. The literature on adults with a borderline disorder gives no indication of a genetically determined predisposition (Pope et al, 1983; Torgerson, 1984).

Drawing on his clinical experience, Masterson (1985) places the emphasis on traumatic experiences in the separation-individuation phase which lead, among other things, to such adolescents not being able to tolerate separations. In the previous histories of these adolescents Masterson identifies prolonged dependency, passivity, heightened fears of separation and phobias. Frustration tolerance, impulse control, and reality perception are poor. There are disciplinary problems in upbringing at home and at school from a young age. Interaction with peers is difficult. During childhood there are often somatic complaints. Whenever they are confronted with a loss (divorce of parents, departure from home of an older sibling) borderline adolescents react in a manner akin to the despair described by Bowlby (1969) of two-year-old children separated for too long a time from their mothers. When this 'abandonment depression' threatens to break through, the adolescent attempts to ward off the unbearably depressive feelings by acting-out behaviour.

We find related themes in Gunderson (1984), whose name is associated above all with empirical research on adult borderline patients. Gunderson links the sharply alternating symptoms that a borderline patient exhibits over the course of time to the presence or absence of a significant object and to the extent to which the patient feels sustained
or frustrated by this object. Other authors have also emphasized that borderline adolescents, in the course of their development, can have tremendous problems with unavoidable separations such as going to nursery school for the first time or leaving the parental home (Soloff & Millward, 1983). Walsh (1977) determined that in a group of 14 borderline young adults the inception of the symptoms (including many suicide attempts) was closely related in 13 of them to an attempt to break loose from the parental home.

Scarcely systematic studies of the way borderline adolescents are brought up reveal in most cases a lack of involvement of the parents with their children, but also open hostility, abuse and sexual maltreatment (e.g. Walsh, 1977; Gartner & Gartner, 1988; Zanarini et al., 1989). These families are often found to be conflict-ridden, or broken up by divorce or by admission to hospital of one of the parents (Walsh, 1977). Gunderson et al. (1980) found that characteristics of those families include a poor enforcement of rules and the denial of the pathology of the child. Masterson's (1985) assertion that borderline adolescents always have one or two members of schizophrenic patients. On the other hand there was the 'clinical' tradition (Hoch & Polatin, 1949; Deutsch, 1942; Zilboorg, 1941; Rado, 1953). The terms 'pseudoneurotic schizophrenia' and 'ambulatory schizophrenia', among others, originate with these authors.

**Follow-up studies**

Follow-up studies up to adulthood of borderline adolescents diagnosed according to DSM-III or DIB are not available. Personality disturbances in adolescents are generally regarded as preliminary stages of affective disorders in adulthood (Gosset et al., 1983), but also of other pathology. Aarkrog (1981) examined 50 adolescents admitted to hospital with borderline diagnosis and retrospectively investigated their symptoms at a younger age. A follow-up also took place five years after discharge, at around age 20. Unfortunately, the (Danish) classification used does not fit the DSM-III very well. The disturbances of the adolescents in this group were sometimes manifest only in adolescence and showed some signs of improvement in young adulthood.

Masterson & Costello (1980) carried out a follow-up study of 31 adolescents treated clinically for borderline disorder who satisfied Masterson's criteria. Of these, 20 reacted well to treatment, and in 18 of them a favourable result was maintained at follow-up (on average after four years, at age 20 years). Ransohoff (1978) followed up seven adolescents, who at around age 15 years had undergone several years of psychotherapy, until they were on average age 26 years. These adolescents fit the picture of the borderline adolescent drawn by Masterson. The pathology was usually still present in the follow-up, but in a number of cases the ego functions had developed in an adult direction so that these patients were better able to control their regressive behaviour.

Long-term follow-up of young adult borderline patients reveals a fairly good prognosis in the fourth decade of life, except for about 10% of the patients who commit suicide (Stone et al., 1987).

**Schizotypal disorder in children and adolescents**

Schizotypal personality disorder was introduced in DSM-III along with the BPD. The characteristics of SPD were largely derived from the research of Kety et al. (1968) with biological relatives of adopted schizophrenics.

Kendler (1985) reports that the current concept of SPD originates from two traditions. On the one hand, in the 'familiar' tradition (e.g. Kraepelin, 1913; Bleuler, 1911; Kretschmer, 1921; Kallmann, 1938) personality disorders were described that had been found in abnormal, but non-psychotic, family members of schizophrenic patients. On the other hand there was the 'clinical' tradition (Hoch & Polatin, 1949; Deutsch, 1942; Zilboorg, 1941; Rado, 1953). The terms 'pseudoneurotic schizophrenia' and 'ambulatory schizophrenia', among others, originate with these authors.

The criteria for SPD in DSM-III can be taken to be the common denominator of the symptoms mentioned by these two groups of authors, supplemented with a number of other symptoms (such as ideas of reference and illusions). The SPD criteria were in some way altered in DSM-III-R. The shaky status of this classification was clearly illustrated in recent research by Morey (1988). On the basis of a survey among 170 psychiatrists and psychologists he calculated that half the patients who according to DSM-III should be classified as schizotypal did not meet DSM-III-R criteria for the 'same' disturbance. Historically, it is understandable that in the professional literature far less attention is given to SPD than to BPD (Blashfield & McElroy, 1987). The former often involves individuals who themselves do not seek help but who are encountered during investigation of families of schizophrenic patients.

**Schizotypal disorders in children**

The classification SPD in children has received almost no attention in the professional literature.
An exception is the article of Nagy & Szatmari (1986) who turned to the literature on SPD itself, the schizoid disturbance in childhood, the syndrome of Asperger, and the 'autistic psychopathy', since the descriptions of the symptoms of children with these disorders in many ways coincided with the DSM-III criteria for SPD. Symptoms common to all disorders were the extreme degree of social isolation, an impaired capacity for empathy, a deficit in understanding non-verbal behaviour, and abnormalities of speech, thought processes, and communicative ability. The researchers active in this area approach the problem from two strongly divergent angles. On the one side are those who make the connection with infantile autism, which is fully justified by the symptoms. On the other side are those who place SPD squarely in the schizophrenic spectrum because children with this disorder are often described in the family studies of schizophrenics. Consequently, it is entirely unclear, as Nagy & Szatmari (1986) stated, whether in children SPD is a matter of a mild form of infantile autism, a genetic variation of schizophrenia, or a totally 'independent' disorder. To obtain greater insight into this matter, Nagy & Szatmari investigated the clinical records of 20 children and adolescents who were selected on the presence of at least two of the symptoms that DSM-III lists for SPD. None of the children met the (DSM-III) criteria for infantile autism, whereas 18 of them satisfied three more criteria for SPD and could be diagnosed as having pervasive developmental disorder as well (if the age criterion of 30 months was not used). This investigation shows clearly that it makes sense to examine further the diagnosis of SPD in childhood: this appears to involve a relatively large number of children, all of whom showed serious disturbances at an early age. In another study Asarnow & Ben-Meir (1988) found that children with a SPD showed a course that ran parallel to that of schizophrenic children, a fact that was already established for adults by McGlashan (1986).

Schizotypal disorder in adolescents

We are not aware of research directed at schizotypal disorders in adolescents. In the older professional literature the ‘diagnostic predecessors’ of this classification are sometimes mentioned in passing (Deutsch, 1942; Rado, 1953; Hoch et al, 1962). SPD in adolescence is sometimes mentioned in prospective studies describing the prognosis of children and adolescents considered to have an increased likelihood of schizophrenia because of a schizophrenic parent. In five out of 12 such children ‘at risk’ Fish (1987) observed the development of a SPD in adolescence. These five children had showed a retardation of bodily growth and motor development in the first years of life, and feelings of depression and loneliness in their latency years.

No follow-up studies of adolescent SPD are known to us. In adults with SPD, the picture through the years remains fairly stable. A small percentage becomes chronically schizophrenic and another small group shows some improvement (e.g. Hoch et al, 1962; Plakun et al, 1985; McGlashan, 1986).

Discussion

We can as yet infer only a number of preliminary conclusions from the scarce empirical data on borderline symptoms in children. There are strong indications that already in the childhood years it is possible to identify children whose symptoms are similar to those of ‘adult’ BPD. The question of whether these symptoms imply a homogeneous diagnostic category is still unanswered. The validity of the diagnosis of borderline disorder in childhood has no more than a face validity: the descriptive validity has not been sufficiently established; and the predictive, construct and concurrent validity of the diagnosis have not been established at all. Data available so far suggest an aetiological heterogeneity. Divergent views are held as to the nature of constitutional deficits underlying childhood borderline disorder: should we think of a ‘mild’ form of autism, or do we have to consider less specific mechanisms, comparable with dysfunctions included in the concept of attention deficit disorder? So far, the view that environmental influences (abuse, neglect) contribute to this kind of pathology has received most empirical support. It is unknown whether extreme environmental adversity may suffice to produce the disorder in children without a constitutional deficit.

With regard to the borderline diagnosis in adolescents the situation is not much better, except for the descriptive validity which was examined a few times with the DIB. Surely older adolescents may display personality disorders that are indistinguishable from those of adults. However, it is also true that in the case of adolescents, satisfying the criteria for a personality disorder is not the same as being affected with an immutably anchored personality pathology. It is probable that in a number of adolescents the borderline symptoms are only manifested in, and are restricted to, adolescence because it is precisely this phase of life which places insuperable demands on individuals who cannot tolerate separation. There are no data which might
indicate factors determining which adolescents remain borderline.

Empirical data on SPD in children and adolescents are even more scanty. From available data it is possible to distinguish symptoms in children and adolescents that are similar to those of 'adult' schizotypal disorder. SPD in children and adolescents probably has a heterogeneous aetiology. Connections between SPD and schizophrenia. Research will have to demonstrate if it is possible to 'refine' the classification of the symptoms of borderline and schizotypal children and adolescents. Greenman et al (1986) have indicated that one can use criteria here for 'adult' borderline disorder on the one hand and data from the literature on borderline children on the other. In a similar manner one can investigate to what extent a 'counterpart' to schizotypal personality disorder in childhood can be differentiated.

That children are in a developmental state obviously complicates the formulation of criteria pertaining to childhood. It is partly for this reason — and with a carefully developed prototypal typology (Clarke et al, 1983) — that by no means all children will be classifiable. A refining of the classification is a prerequisite to further research on the aetiology, progress, aspects of treatment, and prognosis.

An attempt to improve the classification, based on DSM-III-R and 'garished' with items which may or may not be specific to childhood, will prove to be insufficient. Although one will be able to classify the symptoms of a number of children in this way, the diagnostic validity of the categories will be limited and the symptoms of countless other children will be unclassifiable.

To improve the classification it is preferable to use the empirically based classification method (e.g. see Siegel et al, 1986). Ideally, one will be able to classify actual behaviour and to identify homogeneous groups of children who, for instance, display a certain degree of similarity with regard to a number of pre- and perinatal data, genetic data, development of functions, symptoms in varying stages of development, and progress. An approach of this kind will not only lead to a better understanding of borderline and schizotypal children, but is also essential for obtaining insight into these problems in adolescents.

References


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