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Differential Classification in School Refusal

L. ATKINSON, B. QUARRINGTON, J. J. CYR and F. V. ATKINSON

It has been argued that school refusal may not be a unitary syndrome, but a common presenting symptom founded on differing underlying dynamics. The paper explores this hypothesis empirically. The clinical files of 100 refusers were scored for several variables which could potentially differentiate between school refusal subtypes, and for several commonly accepted beliefs about school refusal. The data were subjected to a variety of analyses, culminating in cluster analysis. Cluster (C) 1 consisted of children who feared separation from dependent, overprotective mothers. C2 youngsters were perfectionistic and depressed. They dominated mothers who had been deprived in childhood. C3 consisted of extensively disturbed children from multiproblem families, who had suffered early separation or loss, and who were fearful and depressed.

There is controversy about all aspects of school refusal. Is it a single syndrome with a variety of symptoms, or a variety of syndromes with a common presenting symptom? Atkinson *et al* (1985) presented five parameters which may help distinguish between school refuser types.

(1) *Extensiveness of disturbance* has been dichotomised and labelled neurotic and characterological, or Types 1 and 2, school refusal. Although fearful of school, Type 1 refusers function adequately elsewhere. Type 2 refusers are generally timid, their aversion to school representing one of many fears.
(2) Some refusers experience an acute, others a chronic *mode of onset*.
(3) *Fear source* varies too. Some children are generally fearful, while others are afraid of maternal separation, failure, or the school in general.
(4) *Age* and
(5) *Gender* are also important discriminators (Atkinson *et al*, 1985).

In addition, Kolvin *et al* (1984) divided school refusers into depressed and non-depressed subtypes, although their results were questioned (Atkinson, 1986; Weinberg *et al*, 1986).

The aims of the present study were threefold.

(a) We attempted to determine how the dimensions of differentiation inter-relate.
(b) We explored the adequacy of conclusions drawn on the assumption that the disorder is a unitary syndrome. Several beliefs about school refusers (Table I), derived from four reviews (Atkinson *et al*, 1985; Gordon & Young, 1976; Hersov, 1977; McDonald & Sheppard, 1976), were studied to evaluate how they characterise different types of refusal.

TABLE I

*Commonly cited statements about school refusers as derived from the literature**

Child
The child: demanding at home; passive at home; outgoing when away from home; manipulative; slept longer than is usual (>1 year) with parents; displays low, average, high intelligence.

Mother
The mother: emotionally deprived as child; feels incompetent in maternal role; shows signs of depression; dependent on child for companionship; lacks interests outside family; overprotective; did not desire to become pregnant; is dominant spouse; birth of the patient was feared and/or difficult.

Father
The father: dominated by family; peripheral to family affairs; ineffective in dealing with family problems; heavy drinker; emotionally deprived as a child.

Family Interaction
Poor marital relations; marriage is intact; mother and child interdependent.

School
Teacher perceived as 'mean' (in the American sense); classmates perceived as rough; school work perceived as excessive; academic performance poor; child failed at least one school year; child fears specific aspect of school; child 'acts out' at school.

*Items which were derived from the literature but which could not be coded for lack of data, or for which reliability ≥0.80 was not reached, were not included in this table.

(c) We verified and expanded the profiles with Quay and Parsons' (1971; Quay, 1977, 1979, 1983) Checklist of the Analysis of Life History Data (CALHD), a scale for rating behaviour for three reliable dimensions – psychopathic deviancy, neurotic-disturbed, and subcultural delinquency.

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Method

Data source

Berg *et al* (1969) suggested four diagnostic criteria: (1) severe difficulty in attending school; (2) emotional upset when faced with school; (3) staying at home with parents' knowledge; and (4) absence of significant anti-social disorders. Because in the present study much information was taken from clinical files, where criteria were not easily verifiable, cases were accepted if they met three criteria. All combinations included criterion 1 or 2, ensuring that the *sine qua non* of school refusal, extreme reluctance to attend school, was involved.

Data on 100 refusers were abstracted from the files of four psychiatric facilities. A description of the children was circulated at two facilities and 7 cases were identified in each. At a third institute, perusal of 1250 files, representing all children served in a five-year period, yielded 11 cases. Of the 5735 records examined at the fourth clinic, including all youngsters assessed in a six-year period, 75 cases met the criteria.

The sample includes 61 males and 39 females. Mean age is 11.81 years (s.d. = 3.03 years). The median for years of education was 7, with youngsters having under one year to three years' education falling in the lower quartile, and adolescents with between 10 and 12 years comprising the upper quartile. With regard to diagnostic criteria, (a) extreme difficulty in attending school was explicitly mentioned in 91 cases, (b) emotional upset in 85 cases (all cases met criterion 1 and/or 2), (c) staying at home with parents' knowledge in 81 cases, and an absence of significant antisocial disorders in all cases.

Variables

Eight discriminatory variables were used. With regard to extensiveness of disorder, Kennedy's (1965) Type 1–Type 2 dichotomy presented well-formulated criteria. Kennedy considered any child who met 7 of 10 Type 1 criteria a Type 1 refuser, and likewise for Type 2 refusal (Kennedy, 1965, Table I). In the present study, Kennedy's criterion 4 (education) was eliminated to avoid the artifactual correlation of type and age. Kennedy's criterion 3 (onset mode) could rarely be inferred from the charts, and was dropped altogether.

Kennedy's Type 2 criterion 5 (mother shows neurotic behaviour; father, a character disorder) proved too specific for accurate coding. It was therefore changed to, 'both parents clinically disturbed'. Because parental depression is emphasised in the literature, it was excluded from criterion 5 (and scored separately). Finally, the type dichotomy was made continuous by summing the number of Type 2 criteria that each child met.[1]

Four sources of fear were used. The first was fear of a specific school-related situation (e.g. a rough classmate). Other definitions, based on Smith's (1970) work, were separation anxiety, generalised fearfulness, and extreme perfectionism or fear of failure. Subjects were also classified by age and gender, and according to whether they had been described as depressed. In addition, files were scored for several commonly accepted beliefs about school refusers (Table I) and for the CALHD.

Interjudge reliability was obtained between a blind coder and the first author on 40 files. A further 29 files were scored by the blind judge only, and, for practical reasons, 21 by the first author. Reliability was calculated using Scott's (1955) and Pearson product–moment coefficients. Seven items were discarded for lack of information, and 9 did not reach the 0.80 reliability level; items with reliability ≥ 0.80 were used in further analyses (Table I).

Analyses[2]

Correlation

Pearson correlations (product–moment, point–biserial, phi) were calculated to generate a matrix of discriminatory and literature review variables. Those 12 review items which correlated most highly with at least one discriminatory variable and were statistically significant ($P < 0.05$), were entered into a second matrix with the discriminatory variables. To protect against spurious correlation, the matrix was subjected to the Kaiser–Meyer–Olkin measure of sampling adequacy (MSA) (Kaiser, 1970). Variables which did not meet minimal standards (MSA < 0.50) (Kaiser & Rice, 1974) were dropped from the matrix.

Factor analysis

The final matrix was subjected to principal factoring, varimax rotation, and, to check reliability, unweighted least squares factoring, quartimax rotation. Degree of similarity between factor structures was measured with congruence coefficients (Armenakis *et al*, 1977). Finally, factor scores were calculated for each subject, based on the principal factoring solution.

Cluster analysis

The factor scores were entered into cluster analyses; subjects were classified by both Ward's cluster method with squared Euclidean distances, and the cosine of vectors method with average linkage between groups. Number of clusters was determined with Mojena's (1977) Rule One. To further check reliability, the factor scores were entered into a discriminant analysis and the derived functions were used to predict group membership as originally allocated through cluster analysis.

Inferential statistics

The clusters were then compared across CALHD dimensions using analysis of variance (ANOVA).

1. The modified Kennedy criteria are available in tabular form from the authors on request.
2. A more detailed description of the analyses and results can be obtained from the authors.

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TABLE II
Factor pattern[1] of discriminant variables and literature review items

	Factor[2] 1	2	3	4
Age	*0.67*	−0.10	−0.03	0.09
Extensiveness	*0.48*	0.24	0.17	−0.15
Child's depression	*0.42*	0.17	*0.45*	−0.22
Separation anxiety	0.12	*0.78*	−0.07	0.14
General fear	*0.70*	0.16	0.00	−0.01
Perfectionism/fear of failure	−0.08	0.12	*0.75*	0.23
Separation/loss	*0.45*	0.10	−0.12	−0.12
Manipulative	−0.04	0.10	0.17	*0.78*
Slept long with parents	−0.07	*0.32*	−0.02	0.11
Intelligence	0.19	0.14	0.10	*0.66*
Failed at least 1 school year	*0.42*	0.05	0.06	*−0.44*
Dominates parents	0.11	0.04	*0.70*	0.07
Maternal incompetence	*0.78*	−0.09	−0.10	0.00
Maternal depression	*0.68*	−0.02	0.18	0.10
Mother deprived	0.08	0.09	*0.39*	−0.13
Overprotective	−0.20	*0.67*	0.20	0.00
Interdependence	0.13	*0.79*	0.05	0.01
% Variance	17.3	12.0	9.4	8.5

1. Principal factoring, varimax rotation.
2. Factor loadings greater than 0.30 are shown in italics.

Results

The final correlation matrix included six discriminatory variables and 11 literature review items. This matrix was factor analysed. Four factors (Table II) met the eigenvalue >1 criterion, and were extracted by both factor methods (congruence coefficients between 0.86 and 0.97).

Factor (F) 1 (general fearfulness, extensiveness of disorder, depression, age, significant separation/loss, school failure, maternal depression, feelings of maternal incompetence) was conceptualised as 'general fearfulness and extensiveness of disorder'. F2 (separation anxiety, maternal overprotection, child slept longer than is usual with parents, mother–child interdependence) represents 'mutual separation anxiety'. F3 (child's perfectionism/fear of failure, depression, domination of mother, and mother's emotional deprivation as a child) reflects 'perfectionism and fear of failure'. F4 (manipulative, failed at least one school year) was labelled 'manipulative'.

When factor scores were entered into the cluster analyses, three clusters met statistical criteria (Mojena, 1977) and were replicated across both cluster methods. Discriminant analyses showed 95% and 99% agreement in subject classification with Ward's and cosine procedures, respectively. Because of its superior reliability in relation to discriminant analysis, the cosine results form the basis of further discussion. C1 consisted of 15 children with separation anxiety (F2). C2 included 28 perfectionistic (F3) youngsters.

TABLE III
Mean and standard deviation of CALHD[1] dimensions for school refusal clusters

Dimension	Cluster 1 (Separation anxiety) Mean	s.d.	2 (Fear of failure) Mean	s.d.	3 (Extensive disorder) Mean	s.d.
Psychopathic deviancy	0.06	1.24	0.64	1.24	1.59	1.64
Subcultural delinquency	−0.73	0.80	−0.29	0.94	−0.52	1.09
Neurotic-disturbed	3.20	1.93	2.25	1.65	3.76	2.39

1. Checklist of the Analysis of Life History Data.

C3 represented 29 extensively disturbed (F1) children. Twenty-eight individuals remained unclassified.

Next, the clusters were compared across the CALHD dimensions. Table III gives the means and standard deviations of the dimensions for the clusters. ANOVA showed significant differences between clusters for psychopathic deviancy ($F(2,71)=3.45$, $P<0.05$) and the neurotic-disturbed dimension ($F(2,71)=3.97$, $P<0.025$). Subsequent contrasts revealed that C3 subjects (extensively disturbed) received significantly higher psychopathic deviancy scores than either C1 (separation anxiety; $F(1,71)=4.17$, $P<0.05$) or C2 participants (perfectionistic; $F(1,71)=5.50$, $P<0.025$). C3 subjects also scored higher than C2 refusers for the neurotic-disturbed dimension ($F(1,71)=7.85$, $P<0.01$). No significant differences emerged for subcultural delinquency ($F(2,71)=0.42$, NS).

Discussion

Extensiveness of disturbance

C3 consisted of 29 Type 2 refusers, as described by Coolidge *et al* (1957), Waldfogel *et al* (1957) and Kennedy (1965). These children scored high on a modified version of Kennedy's (1965) Type 2 scale, which is largely concerned with familial difficulties. Type 2 children were older (mean age 13.9 years; s.d. = 2.23 years). They suffered depression and pervasive fear. Often they experienced academic failure, possibly reflecting intellectual difficulties (Coolidge *et al*, 1957). The mothers were depressed also, and doubted their maternal competence.

Most C3 children (68%) have experienced a separation or loss. The most frequent loss was of the father, either through divorce (18.2%) or death (9%). This is interesting given the Kolvin *et al* (1984) finding that depressed refusers are more likely to live with only one biological parent.

Loss was also experienced through the death of a grandparent (22%). Grandparents are important

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in the lives of school refusers. Often a parent has not achieved appropriate separation from his or her own parents (Bowlby, 1973; Coolidge *et al*, 1957; Davidson, 1960; Eisenberg, 1958; Estes *et al*, 1956; Johnson *et al*, 1941; Weiss & Cain, 1964).

As well as an extensive form of disorder, investigators have discussed more limited disturbances. These are represented by C1 (reciprocal separation anxiety) and C2 (perfectionism/fear of failure). With their tight groupings of few high loading variables, these clusters suggest circumscribed forms of disorder, as discussed below.

Separation anxiety

The 15 children of C1 showed separation anxiety. They feared leaving an overprotective and dependent mother, with whom they had slept longer than is usual. This dynamic forms the core of psychoanalytic theorising (Atkinson *et al*, 1985).

Perfectionism and fear of failure

The dynamic of perfectionism and fear of failure emerged among the 28 C2 youngsters. The combined occurrence of perfectionism and domination has been mentioned by theorisers of psychoanalytic (Waldfogel *et al*, 1957) and psychodynamic (Radin, 1967) orientation alike. They postulate that it is partly because the child so completely dominates his or her parents, he or she develops an inflated self-concept (Leventhal & Sills, 1964; Millar, 1961; Radin, 1967; Waldfogel *et al*, 1957). When school threatens failure, the child retreats to some area of competence.

The C2 child is depressed. An association between perfectionism and depression in school refusal was also noted by Smith (1970). Perhaps the link is not surprising, given the 'severe narcissistic blow' (Waldfogel *et al*, 1957) to the child's 'fragile sense of self-worth' (Millar, 1961) delivered by academic demands. Radin (1967) posited that the perfectionistic child's depression is rage turned inward.

The mothers of C2 children were emotionally deprived as children. This may be why they have low self-esteem and need to believe in their children's superiority (Radin, 1967).

School refuser types and the CALHD

When clusters were compared across the CALHD dimensions, no differences emerged for subcultural delinquency: all groups scored in the negative range (Table III). One of the criteria for acceptance in this study was an absence of anti-social disorders.

For the neurotic-disturbed dimension, C3 (extensively disturbed) refusers scored significantly higher than C2 (perfectionistic) children. This dimension includes such descriptors as shy, sensitive, submissive, lonely, and anxious.

C3 refusers scored significantly higher than C1 and C2 refusers for psychopathic deviancy. This suggests that C3 children form poor relationships, are more likely to be irritable and to feel persecuted, and are less likely to profit from praise or punishment. Overall, these results again suggest the more extensive nature of C3 disturbance. This reflects well on the discriminant validity of the clusters, at least in terms of C3 against the other groupings.

The immediate concern for future research is replication of the present study to eliminate methodological shortcomings. As is inevitable in case file research, we were unable to judge the reliability of clinical record data; variables which exist in degree had to be rendered dichotomous; variables were excluded from analysis for lack of data; and 28 refusers remained unclassified. However, confirmation of the subclassificatory scheme might permit researchers to tackle the unresolved issues of school refusal with more homogeneous patient groupings.

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*Leslie Atkinson, PhD, *Psychologist, Early Intervention and Developmental Evaluation Services, Surrey Place Centre, Toronto, and Department of Psychology, Whitby Psychiatric Hospital, Whitby, Ontario*; Bruce Quarrington, PhD, *Professor, Department of Psychology, York University, Downsview, Ontario*; James J. Cyr, MSc, *Research Coordinator, Department of Psychology, Whitby Psychiatric Hospital*; Frederick V. Atkinson, PhD, *Professor, Department of Mathematics, University of Toronto*

*Correspondence: *Surrey Place Centre, 2 Surrey Place, Toronto, Ontario, Canada M5S 2C2*

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