

Child Abuse and Neglect in Children Referred for Learning Evaluation

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During the 1977-78 school year, 430 children from the Island of Oahu, Hawaii, were referred to a central school problem clinic for evaluation of learning problems. The proportion of these children (6.7%) who had been independently reported to the state child abuse agency was compared, after age adjustment, to the rate of such reporting for all children on the island and was found to be 3.5 times higher. The types of abuse and/or neglect reported were similar for the children with learning problems and for other island children. These findings strengthen the argument for a link between child maltreatment and developmental disabilities.

Although the immediate sequelae of child abuse or neglect may include death, deformity, and permanent disability, any long-term psychological and cognitive effects have yet to be fully delineated. An association between child abuse and mental impairment has been reported, as has one between abuse and learning disability (Sandgrund et al. 1974, Martin & Rodehelfer 1976). Other studies have suggested associations between child maltreatment and various cognitive deficits, although they have left the issue of cause and effect unassessed (Solomons 1979, Lynch 1978).

However, these reports drew their conclusions from virtually identical study designs, which are open to substantial bias. Each began with a series of child abuse victims and subjected them, usually at some later date, to a psychoedu-

cational testing battery. Some dealt primarily with abuse victims who were specifically referred for developmental evaluation, suggesting a bias toward children who clinically seemed more in need of assessment (Martin & Rodehelfer 1976). Another difficulty is that most previous reports in this area have been based on hospital series. Since only a minority of abuse victims are likely to be hospitalized and since these generally represent unusually severe cases, data derived from hospitalization studies may be applicable only to severe child abuse. Finally, the problem of selecting appropriate controls is difficult. One study in which controls were matched on socioeconomic status and other relevant variables found few significant differences between abused and control children. However, they were surprised that so many children in both

groups were handicapped (Elmer 1977). This study drew virtually all of its subjects from a large city ghetto and concluded that social class membership seemed a far more significant determinant of problems in this population than abuse. Whether this conclusion applies outside the ghetto is unclear.

The present study is an attempt to assess the relationship between child abuse and neglect and learning difficulties using a different methodology. All children referred in a single year to a large learning problem clinic were cross-checked against the files of the primary child abuse center for the region. In this manner we were able to independently ascertain which of the learning-impaired children had been reported for abuse or neglect and whether these reports were officially confirmed. We then calculated, from the same files, an expected rate of child abuse or neglect reporting for an age-matched population. We hypothesized that the learning-impaired would be overrepresented in agency files of maltreated children.

METHODS

In 1977-78, a total of 430 children from the Island of Oahu were assessed by the School Problem Clinic (SPC) of Kapiolani Children's Medical Center. Most of these assessments were done under a contract with the State of Hawaii Department of Education, and they represented a significant percentage of the formal learning assessments done in the state during this school year. Most children were given a comprehensive evaluation including social, pediatric, speech and language, and psychoeducational assessments. Additional in-depth psychiatric and neurological evaluations were obtained as required.

Kapiolani Children's Medical Center also houses the Children's Protective Services Center (CPSC), an agency of the Hawaii State Department of Social Services and Housing, which is responsible for evaluating and managing all reported child abuse and neglect on the Island of Oahu. The CPSC maintains a manual card file listing of active and closed cases, currently totalling about 7,000. To test our hypothesis, we wished to see whether the number of reports of abuse/neglect among the 430 children with learning

Table 1. Expected Number of Abused/Neglected Reports for Children with Birthdates 1965-1972

<u>Birth year</u>	<u>Estimated No. of abused/neglected cases on Oahu</u>	<u>Oahu population</u>	<u>Calculated rate abuse reporting per 1000^a</u>	<u>Observed No. of children in study sample</u>	<u>Expected reports</u>
65	275	14,847	18.5	17	.32
66	285	15,389	18.5	33	.61
67	251	15,326	16.4	54	.88
68	267	15,067	17.7	49	.87
69	280	15,235	18.4	89	1.64
70	330	15,302	21.6	99	2.14
71	268	15,072	17.8	72	1.28
72	271	14,450	18.8	17	.32
Total				430	8.06

^aThe approximately constant rate of reports by birth year is the result of opposing trends that roughly cancel each other. The older children have had more years at risk, but the younger children have been at the peak risk age (3 to 5 years) in more recent years when reporting rates have been higher.

problems exceeded the number expected on the basis of island-wide reporting rates. A list of the children referred for learning evaluation was prepared, and the 430 names manually checked against the CPSC card file. This provided a count of the actual number that had been reported at any time to CPSC. All cases with reports of abuse or neglect were further checked to ascertain whether the allegation had been confirmed. Because the CPSC files are kept current, an occasional abuse or neglect report occurred after the learning assessment, but most were received prior to 1977-78.

To establish expected values for abuse or neglect reporting, the indirect age-adjustment procedure was used (see Table 1). A survey of the entire card file was made, and the birthdate of the child described on every 12th card was ascertained. It had been determined previously that the birth years of the children evaluated for learning problems fell between 1965 and 1972, inclusive. For each of these birth years, the number of cases previously or currently active with CPSC was calculated based on the one in 12 card file sample. We obtained a July 1977 population estimate for the catchment area of our study (the Island of Oahu). We were then able to calculate an abuse/neglect rate for each birth year and to estimate the corresponding expected number of child abuse and neglect re-

Table 2. Abuse and Neglect Confirmation Status

	<u>Confirmed abuse</u>	<u>Unconfirmed abuse</u>	<u>Confirmed neglect</u>	<u>Unconfirmed neglect</u>
Known as abused to SPC Staff	3	2	2	0
Not known as abused to SPC Staff	7	4	2	4
Total	10	6	4	4

Note. Data unavailable on five cases. SPC = School Problem Clinic. One child with confirmed abuse and neglect is tabulated here under abuse.

ports in the study group. The sum of these expected values was compared with the observed number of reports, which actually were identified among the 430 children.

Confidentiality was strictly observed, and no CPSC information concerning reports of abuse or neglect was in any way transferred to SPC records.

RESULTS

The results of our study are summarized in Table 2. We found CPSC reports on 29 of the 430 children who had been referred for learning evaluation. This was

more than 3½ times the eight cases expected from the age-adjusted rate for CPSC reporting in the general population ($p < .001$). The types of abuse and neglect reported in these children were similar to those in other children in Hawaii (Table 3). Of the 29 reports, 14 were confirmed, one for both abuse and neglect. This represents a 48% confirmation rate compared with the 50% average during the years 1969 to 1978 (the only ones for which data are available). Although the SPC evaluators knew of CPSC activity in about a quarter of the cases, two of these reports had not been officially confirmed by CPSC. Conversely,

confirmed abuse was occasionally unknown to SPC evaluators despite extensive pediatric and social-work assessments.

The SPC diagnoses were available to us in 23 of the 29 cases. In nine of these (39%) a diagnosis of specific learning disability was made, while in the other 14 learning problems were related to emotional difficulties, low intelligence, or nonspecific underachievement. In the overall series of 430 children, 57% were diagnosed as having a specific learning disability.

DISCUSSION

A number of studies suggesting a significant association between child maltreatment and subsequently ascertained cognitive deficit have been reported. The present study confirms that association using an approach that differs from those previously employed and that may be free of some of the biases in earlier reports. The population consisted of 430 children referred for learning evaluation in whom there was otherwise no reason to suspect child abuse or neglect. We believe this approach offers some control over selection bias, as it allowed us to compare maltreatment prevalence in this relatively large group with the experience among children of similar ages in the general population. Our abused and neglected subpopulation of learning-impaired children does not appear to have been maltreated in a manner differing greatly from state experience (Table 3).

The present study, of course, has its own limitations. We believe that both populations are somewhat skewed toward the lower socioeconomic strata. Data for 1978 demonstrate that over 90% of maltreated children in Hawaii came from homes in which the total income was less than the state median for that year. Although extensive socioeconomic data are unavailable in the SPC sample, about 20% of them were known to be receiving welfare benefits. This is slightly more than the statewide average for this age group (15%) (Office of the Governor, State of Hawaii, 1981). It seems likely that this excess representation in the lower socioeconomic group accounts for some, but not all, of the association between maltreatment and learning problems.

Table 3. Comparison of Study Population with State Experience

	This study		1978
	No.	%	Hawaii %
Abuse			
Major physical:	2	14.3	6.2
Fractures, concussions, etc.			
Minor physical:	7	50.0	46.3
Welts, bruises, etc.			
Sexual	1	7.1	5.0
Emotional	—	—	6.3
Neglect			
Physical:	5	35.7	28.3
Inadequate feeding, hygiene, etc.			
Other	—	—	7.9

Note. Because of multiple responses, percentages do not necessarily add to 100%.

A further potential difficulty is that although the study population is a significant subset of all children evaluated during that year for learning difficulties, it remains a selected population since school authorities specifically chose to refer these children and processed the remainder through other channels. Because no explicit criteria exist for SPC referral, it remains possible that abused children were preferentially directed by the school system to this community resource. However, since SPC is not known for any unusual interest or expertise in problems of child abuse or neglect, this seems unlikely.

Despite these difficulties, we believe this study strengthens the evidence for a link between learning difficulties (including those deriving from specific learning disability and mental retardation) and child maltreatment. There would appear to be significant implications in these findings both for those working with abused children (who may harbor undetected learning handicaps) and for those working with the learning impaired (whose family circumstances may be contributing to underachievement). It appears from our study that a few cases "known" to the learning assessors as possible victims of abuse or neglect had indeed been reported but lacked any official confirmation of the reports. There is reason to be

concerned about the potential effects of possibly incorrect labelling in such cases. Schools might treat parents differently if they mistakenly saw them as "abusive" and children differently if they incorrectly perceived them as victims. On the other hand, in Hawaii at least, a portion of maltreatment almost certainly remains "unconfirmed" due to inadequate investigation (Schmitt 1978).^{*} In such cases schools may be correctly convinced that a child is being abused but be unable to get needed help from the mandated social agencies.

There are at least three possible reasons why child maltreatment and learning difficulties might be overrepresented in the same population. Martin and others have suggested that severe or repetitive minor head trauma may be a direct cause of cognitive difficulties (Martin & Rodehelfer 1976, MacKeith 1974). On the other hand, children who have difficulty in comprehending information or who are hyperactive with poor control of attention may be inherently more difficult to manage and hence invite harsh and potentially abusive punishment. In such a model abuse is a consequence of preexisting cognitive, temperamental, or attentional abnormality. Finally, it is possible that the learning difficulties, whatever diagnosis they are officially given, may ultimately derive from unstimulating

^{*}In one of the present study's officially unconfirmed cases, the CPS investigator reported that the child had said her father had broken her arm. The reason why the story was either disbelieved or not felt to represent abuse is unrecorded in the record.

childhood environments, and along with abuse they may be a result of more fundamental socioeconomic stresses (Keppelman 1972, Newberger & Bourne 1978). These three alternatives are not mutually exclusive, with each probably contributing to the higher than expected rate of abuse in children experiencing difficulty in school.

The present study underscores the desirability of cooperation, attending strictly to issues of confidentiality, between schools and social agencies charged with the protection of children. Accurate exchange of information should be encouraged where feasible, as it should facilitate appropriate case planning by all involved agencies and may avoid inaccurate labelling. If, as the present study suggests, maltreatment and learning difficulties are significantly associated, closer interagency cooperation may be necessary for comprehensive remediation of troubled children in troubled families.

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