

THE USE OF PARENTAL AND SIBLING DATA
IN LEAD LITIGATION

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INTRODUCTION:

Gaining or preventing access to parent and siblings records and/or testing of parents and siblings is an issue of increasing concern in lead litigation. Courts all over the country are being asked to decide this issue which pits the right to privacy of parents and siblings against the defendant's right to discovery of information which may be important to the defense of the case. As a non attorney, I cannot speak to the legal issues involved, however as a neuropsychologist, I have been asked to participate in the debate as it concerns the scientific importance of such information when making statements about lost potential or acquired brain injury. In a commentary published in Mealy's (vol. 10 #11, 3-2001) I briefly laid out the issues and the scientific basis for these discovery requests. I have also touched on in these issues in previous Mealy's seminars.

My written materials today review some of those issues, but is somewhat more practically focused. In addition to reviewing some of the theoretical issues, I hope to provide useful information regarding which records and testing are important, what information we are looking for in those records, how to read records for key information and how to decipher the available data.

The oral presentation is specifically concerned with a response to Mr. Serpe's Sample Protective Order. To the degree that scientific issues are raised in the order, I will speak to those. I have also included in the written materials a draft affidavit which might be used in support of a motion to compel. In the interests

of time I have not included the bibliography to the affidavit, but all referenced articles should be easily found by author and date in a PubMed search.

THE IMPORTANCE OF PARENT AND SIBLING DATA:

In Lead Litigation, alleged damages typically fall into one or more of the following categories:

- Lowered IQ
- Learning Disabilities/Academic Problems
- Attention Deficit Hyperactivity Disorder
- Behavioral Problems
- Social/Emotional Problems arising from the above

Careful review of the scientific literature clearly indicates that a causal relationship between lead and learning disabilities, ADHD, behavioral problems, or social/emotional problems cannot be supported. (Bellinger, 1994,1995; Smith, 1988) As regards lowered IQ, the results of large group studies, and most importantly, Meta-Analyses, have suggested that from an epidemiological perspective, there is about a 1-4 point difference in the group mean IQ of higher versus lower exposed youngsters. (Schwartz 1994; Pocock & Smith, 1994) While the Meta analyses primarily concern themselves with levels under 30, several of the larger group studies have included youngsters with substantially higher levels, and these general parameters appear to hold. As I have noted

elsewhere, the size of this difference is no larger than the anticipated day-to-day variability within individuals and is of no functional consequence. Overall, the literature suggests that lead exposure is responsible for no more than 1-2 percent of the variance in IQ. (Smith, 1988)

By contrast, even the leading authors in the area of lead exposure agree that factors associated with parental/family functioning are those which are most closely related to outcome in any given child. The nature of these relationships consists of a complex intertwining of genetic and social factors. Among the important markers are:

- Parental IQ
- Sibling IQ
- Parental and Sibling Academic Functioning including attendance
- Parental/Sibling history of learning disabilities
- Parental/sibling history of psychiatric illness (e.g. depression, psychosis)
- Parental History of substance abuse
- Serious parental/sibling health problems
- Use of physical punishment
- Parental Occupational Functioning
- Involvement of the Department of Social Services
- Severe Financial Limitations

Careful evaluation of such markers allows for the consideration of important contributors to child development which are unquestionably known to be far more critical than lead. To consider lead in isolation from these factors denies us the opportunity to be more accurate in understanding the nature and origins of any individual child's functioning/behavior.

READING THE RECORDS:

The information identified in the previous section is contained in various kinds of records of parents and siblings as well as those of the plaintiff. Frequently, the information sought is not in the precise records one would anticipate, so all records should be carefully reviewed for all of the different types of information. With this in mind, following is a list of the records to be sought, and what information they may contain:

- **Parental Medical Records:** Medical records often include a great deal of social information as well as medical information. Progress notes and interviews may reference parental educational level, vocational function, and history of substance abuse or incarceration. Often, past psychiatric history is described within the medical record; at times psychiatric records or interviews with social workers may be contained within the medicals. Obviously, parental mental illness is a known factor in children's functioning and access to parental psychiatric history can provide this information in detail.

A history of chronic illness in a parent may have significant bearing on a child's functioning, causing depression, anxiety, behavior problems and school failure.

Certain kinds of notes in the medical record may point the way to further discovery. For example, a history of elevated liver enzymes or pancreatitis may indicate chronic alcoholism. A positive test for Hepatitis (particularly type C) or HIV may suggest that the individual is an intravenous drug user, or that she has ongoing contact with an intravenous drug user who may have contact with the child.

Especially in the case of the mother, frequent emergency room visits for cuts, bruises, etc due to "falls" or other vaguely defined accidents may indicate a climate of domestic violence. A history of repeated miscarriages may indicate chronic pregnancy problems which may have impacted on this child, or a history of serious genetic difficulties.

A history of treatment with Ritalin or other stimulants strongly suggests a prior diagnosis of ADHD. Similarly medication lists which contain tranquilizers, antipsychotics, anti-depressants, or anxiolytics indicate that there has been psychiatric treatment, and suggests the kinds of illness which might have been treated.

At times, persons writing in the medical record may form an impression of an individual's cognitive capacity, either directly stated or by indicating that the

individual is having difficulty understanding instructions or questions, or providing answers to questions.

- **Sibling Medical Records:** Sibling records often contain information about family functioning which is not contained in the patient's medical record. In addition to the kinds of information found in parental records, sibling records may contain other markers. Frequent traumatic injuries, especially if they are treated at different emergency rooms, may indicate physical child abuse. Although the plaintiff may not himself be an abused child, a history of physical or sexual abuse in a sibling may suggest an unstable parent or family situation, or reflect the inability of a parent to protect a child properly.

Physical examinations of siblings may indicate a general level of neglect within the home. Certainly repeated episodes of impetigo and/or ringworm may indicate that hygiene is inadequate. Use of substances or alcohol during a sibling pregnancy may indicate ongoing problems with parental substance abuse, or problems with substance abuse during the plaintiff's formative years.

Siblings with serious or chronic physical or developmental disorders require inordinate amounts of time and energy on the part of their parents; even in the most well adapted homes, care of, and attention to, the non-affected child may suffer. Sibling medical records also often include reference to developmental or learning disabilities known to be familial, such as reading disability; adhd, or Autism.

- Parental and Sibling Educational Records: School records provide a tremendous amount of information regarding aspects of parental and sibling functioning which may impact a child, from both a genetic and environmental perspective. Schools typically administer a variety of standardized tests which assess academic and intellectual abilities. Among the information available may be the results of group IQ Tests, such as the Otis Lennon School Abilities Test in which the IQ type score is called an **SAS** and reported as the same two or three digit metric as an individual IQ test, or the Cognitive Skills Index which will report a **CSI**, also an IQ equivalent score. Some group IQ tests report two or three separate scores **Verbal, (V) Nonverbal (NV) and/or Quantitative (Q)**. Again these will be reported as a two or three digit metric generally covering the range from around 55 to 130. These scores are statistically equivalent to an IQ score on an individual test such as the WISC-III, although in general they are felt to be somewhat less valid and reliable than an individually administered test. It is also important to remember that because these are written tests, scores can be affected by lowered reading ability.

Schools also routinely give achievement tests to see how their students are doing when compared to a national or even local sample. Common choices include the California Test of Basic Skills, the Iowa Tests and the Metropolitan Achievement Tests. Unlike the IQ tests which measure an individual's overall intellectual functioning, these tests are intended to measure acquisition of school based skills.

At the very minimum they usually include tests of reading vocabulary and comprehension, and math concepts and operations. Often tests of language are included as well and occasionally broader based tests of social sciences, science, etc. Achievement test scores are reported in a number of different ways. Typically the report includes a standard score (**SS**) which is not generally interpretable unless one has other information about the statistical properties of the test. It might also include a Raw Score (**RS**) which is completely uninterpretable, and is not intended to be interpreted. Another typical score reported is the **Stanine**. The stanine is a metric which groups people into fairly broad categories. Generally a stanine of five or greater is at least within normal limits. Often an **NCE** or national curve equivalent is reported; this is not a useful score without reference to other statistical information. The most useful scores are the **Grade Equivalents (GE)**, **National Percentiles (NPR)** and **Local Percentiles (LPR)**. The grade equivalent is, as it sounds, an approximation of the grade level at which that child is working in that particular area. It is typically reported in years and decimals. (since the school year is approximately 10 months, the decimal is roughly one month). Thus a grade equivalent of 3.2 would be approximately third grade, second month. Variation by one half to one full grade equivalent is not necessarily an indication of a problem, especially in the higher grades where scores on standardized tests might typically be one or two years behind. Such performance might result in further investigation by the school, and if disabilities are present, this information typically appears elsewhere in the record. The NPR is a percentile rating that compares the child to a national standard. Thus an NPR of

70 means the child did better than 70% of all the other children in his grade across the country on whom the test was normed. Perhaps more important than the NPR is the LPR or local percentile. This score references the child's performance to a specific local peer group, usually his individual school, or at its broadest, his school district. The LPR enables us to see how a child fares when compared to a roughly equivalent group of students and enables us to consider a person's performance fairly even if he is in an under performing school or district. Broadly constituted, percentile scores between 15 and 68 are within normal limits. Scores below 3 percent are deficient and those above 97 are superior.

In addition to standard scores, parental school records provide numeric information about a parent's grades and attendance, and enable us to identify their academic accomplishments. For example if a parent says she completed 1 year of college, we have no a prior way of knowing whether that was a year of "developmental" or "college prep" courses at a community college, or a strong curriculum in the arts and sciences at a four year institution.

Information regarding sibling attendance may help assess a parent's commitment to an education. Teacher's narrative comments on report cards, as well as grades in conduct, can provide information regarding whether a the plaintiff's school behavior problems are like those experienced by a parent or sibling . Similarly, sibling education records provide information about how the sibling's function as students and whether the plaintiff's difficulties are typical of those seen in his family.

Finally, school records especially those pertaining to the siblings may provide us with general information about parental involvement in their children's education. The Special Education Records are a subset of school records. A separate subpoena may need to be issued for these. These are records gathered under the Individuals with Disabilities Education Act (Formerly PL94-142) and provide information regarding whether the individual has any diagnosable learning, developmental, and/or emotional disorders. As many, indeed most, of these disorders are felt to have a strong familial component, the Special Education records offer important information regarding whether a given plaintiff's difficulties may be familial/genetic in nature. The Special Education records invariably contain Educational and IQ testing. They should include "**IEP's**" and reports of **ARD** or **IEP** meetings which identify the nature of the disability, the services to be provided and the intensity of such services. Currently there are 14 separate disability codes, (often reported only as numbers):

1. Mental Retardation (01)
2. Hard of Hearing (02)
3. Deaf (03)
4. Speech and Language Impaired (Including simple articulation disorders)
(04)
5. Visually handicapped (05)
6. Seriously emotionally disturbed (6)
7. Orthopedically Impaired (7)

8. Other Health Impaired. Includes chronic illnesses and ADHD (8)
9. Specific Learning Disability (Reading Writing or Math) (9)
10. Multihandicapped (10)
11. Child in need of Assessment (No diagnosis as yet) (11)
12. Deaf Blind (12)
13. Traumatic Brain Injury(13)
14. Autism/Pervasive Developmental Disorder (14)

Of these, mental retardation, some forms of hearing loss, speech and language handicaps, ADHD, Learning Disabilities and Autism/PDD have a well known and documented genetic/familial link. Even where genetics is not at issue, the presence of such disabilities may influence the environment. For example, deafness or severe hearing loss in a parent has clear implications for language development in the a plaintiff child. Similarly, a sibling with autism, cerebral palsy or other serious medical/developmental disorder will impact on family functioning. Such impact need not always be negative, however to obtain a full understanding of the environmental issues which impinge on a given child, this information is critically important and is standard history material in any Clinical Neuropsychological examination.

- Parental Department of Social Service Records: Unfortunately, many children have in their history a general environment of abuse and/or neglect which can severely impact their day to day functioning. While DSS records on an individual child contain important information pertaining to that specific child, we have already noted the

importance of general information on family functioning which may be contained in the Parent's DSS file. Although the names of siblings will typically be redacted from a Case head's records, the general information contained within enables us to develop a more complete picture of the plaintiff's environment. Sometimes those records will reveal for example, that while a plaintiff has never been removed and placed in foster care, his siblings might have been. DSS does not necessarily remove all children when a finding of neglect or abuse is substantiated on one of the siblings.

DSS records can tell us if the environment is over crowded or neglectful. There is typically information about multiple caretakers, if this is an issue, and the capability of potential alternative caretakers. Finally, DSS records often identify a variety of other negative influences in a child's environment, even when the records do not pertain specifically to the plaintiff.

- **Criminal Records:** Parental involvement with the legal system is another source of important information about the environment in which a child is raised. In addition to providing information about criminal activity to which a child may have been exposed, it also provides information about separation from parents.

- **Parent and Sibling IQ Testing:**

Testing of parents and siblings is obviously the most accurate method of obtaining current information about the intellectual development of other members of the family. In addition to (in the case of the parents) providing baseline expectations for a child in whom there is no pre-exposure information, such testing also

enables us to assess the importance of social and cultural issues as they may impact upon the testing of the child. Finally, the evaluation of the caretaker in particular provides us with key information about the environment created for the plaintiff's development.

CONCLUSION:

Contrary to the typical assertions of Plaintiffs' counsel, the request to review parental and sibling records and to have an opportunity to evaluate them directly is neither frivolous nor irrelevant. The request is not based upon the mere "speculation" of a relationship between the functioning of family members and the plaintiff, but upon sound neuropsychological and psychological principles which clearly establish these factors as the most important ones in predicting an individual's development. Even in lead paint research these factors contribute the most significant percentage of the variance.

Plaintiffs argue correctly that it is not **necessary** to have this information to determine the effect of lead on children. The literature is quite clear about the group "effect" and, although it is not acceptable methodology to apply that effect to a specific individual, plaintiffs seek to offer the most speculative sort of opinions of effects and effect sizes not even reported in the controlled literature.

In a typical argument Plaintiff's expert's concludes that, "in the absence of other factors" which may have contributed to or caused a plaintiff's difficulties, lead is presumed to be the cause, or at least a "significant contributor" . In so doing, the plaintiffs' themselves admit that there are other factors. They demand that the defense answer the question, "if not lead, then what?" while denying access to information which might answer the question..

In neuropsychology, damages are the difference between premorbid and post morbid functioning, and causation is established by identifying an event which accounts for the difference. Where no premorbid test data exists, neuropsychologists are required to create estimates using other sources of information. As we have repeatedly noted, when the alleged damage occurs in children, especially before they are of school age, the only reasonable estimates which can be made are based on family functioning. Access to parental and sibling data and testing provides the only objective basis for such estimates to be made.