PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Meadow, Southall, and the General Medical Council of the United Kingdom

David L. Chadwick, Henry F. Krous and Desmond K. Runyan

Pediatrics 2006;117;2247-2251
DOI: 10.1542/peds.2006-0429

SPECIAL ARTICLE

Editor's Note

Abuse of Child Abuse Experts in England

I have watched with dismay this story evolve in England for over a decade. It's a complicated story described in detail in the Chadwick et al and Hey articles in this issue.

In my opinion neither of these doctors should ever have been put through this ordeal. There is something grossly wrong with the medical and legal system, which allowed this to happen.

—Jerold F. Lucey, MD

Meadow, Southall, and the General Medical Council of the United Kingdom

David L. Chadwick, MD[a], Henry F. Krous, MD[b], Desmond K. Runyan, MD, DrPH[c]

[a]Chadwick Center for Children and Families, Children's Hospital-San Diego, San Diego, California; [b]Department of Pathology, University of California School of Medicine, San Diego, California; [c]Department of Social Medicine, University of North Carolina School of Medicine, Chapel Hill, North Carolina

The authors have indicated they have no financial relationships relevant to this article to disclose.

ABSTRACT

In this article we address the recent actions of the General Medical Council in the United Kingdom affecting 2 pediatricians who are major contributors to pediatric knowledge about the intentional suffocation of infants. The General Medical Council struck one of them from the register of licensed medical practitioners, but the decision was appealed successfully. The council restricted the practice of the other pediatrician. After a review of the transcripts of the hearings, we conclude that the opinions given by both doctors were responsible, and the transcripts suggest that the conduct of the hearings was unfair. Licensing boards may have difficulty in competently regulating doctors' expert testimony, at least in cases involving child maltreatment.

www.pediatrics.org/cgi/doi/10.1542/peds.2006-0429

doi:10.1542/peds.2006-0429

Key Words
abuse, sudden unexpected death, SIDS, testimony, licensure

Abbreviations
GMC—General Medical Council
SIDS—sudden infant death syndrome

Accepted for publication Mar 20, 2006

Address correspondence to David Chadwick, MD, Chadwick Center for Children and Families, Children's Hospital-San Diego, 4816 Rushville Lane, San Diego, CA 91941. E-mail: dlchadwick1@earthlink.net

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

WITHIN A LITTLE more than 1 year (2004–2005) the governmental licensing agency for medical practitioners in the United Kingdom, the General Medical Council (GMC), found 4 doctors guilty of serious professional misconduct because of their actual or offered testimony about child abuse cases; 3 involved the same case. The case, in its criminal form, is known as *Regina v Clark*, and it also led to a civil protection case involving a child born after the 2 previous siblings had died suddenly and unexpectedly, each at ~3 months of age. The 2 doctors who were disciplined, Professors Sir Roy Meadow and David Southall, are pediatricians recognized internationally for pioneer work in defining and describing child abuse by suffocation. A third doctor is a pathologist who performed autopsies in both of the fatality cases. Another practitioner had been involved in other cases. This article reviews the cases of the 2 pediatricians who have studied suffocation.

In February 2006, a court of appeals[1] overturned the GMC verdict in Meadow's case. However, Southall is still excluded from work in child protection, and the spreading and international effect of the GMC actions persists. The first and most important concept cited by the appeals court judge was a theory of witness immunity, a technical legal theory. The judge also opined that the GMC had not made its case, but it did not pursue the underlying issues of sudden infant death syndrome (SIDS) and child abuse that were at the heart of the original case.

In this licensure process, the 2 doctors and their research work came under attack, and the issue of the definition of SIDS was subjected to intense and flawed analysis. However, the most important effect of the actions of the GMC may be a general chilling of activity and a pall of silence cast over doctors in the United Kingdom and elsewhere who use their skills to identify and protect abused children. Child abuse medical research may also be inhibited by the public information campaign that accompanied the GMC actions.

In an effort to "protect the public," the GMC attempted to assess the quality of the doctors' expert testimony. Their efforts seem to have failed because of difficulties in understanding the technical issues involved and the absence of clear standards and guidelines for this peculiar class of medical practice. In this article we address the medical issues raised by the GMC, the fairness of the GMC processes, and the issue of the regulation of expert testimony by licensing agencies.

THE CONTRIBUTIONS OF MEADOW AND SOUTHALL

Meadow was among the first doctors to point out that intentional suffocation of infants occurred and might be recognized because it was repetitive or was confessed or witnessed.[2–6] Other observers described similar cases.[7–9] Some cases fit the picture of Munchausen syndrome by proxy,[3–5,10] and other infants were dead at the time of first medical contact.

Southall first showed that apneic episodes in premature infants did not predict later SIDS,[11] demonstrated then by video-monitoring acts of suffocation by parents inflicted on their hospitalized infants.[12–17] These infants were all still alive when they encountered health care, a fact that made them somewhat easier to recognize than those in whom the first suffocation was fatal. However, the very dangerous acts committed and recorded in the hospital established their reality in the face of incredulity.

Taken together, the work of these 2 British pediatricians (confirmed in the United States and elsewhere[7,8,18–23]) has established the fact that parents sometimes suffocate their young infants and may cause their deaths by this form of abuse. The exact incidence of the phenomenon has never been known; however, it seems probable that the cases in which suffocated infants present as sudden infant death without findings of trauma at postmortem examination would be much harder to identify (without confessions by their caretakers). Therefore, an unknown proportion of infanticides are still unrecognized, uncounted, and lumped in with SIDS.

METHODS

The transcripts of the hearings at the GMC for Southall and Meadow for allegations of professional misconduct have been reviewed.[24,25] The findings of the 2 GMC panels and the details of the conduct of the 2 hearings are analyzed. The authors also reviewed portions of the transcript of *Regina v Clark*. The findings were analyzed against the background of knowledge of the medical issues from existing literature. The conduct of the hearings was considered from the standpoint of fair processes, including the GMC's own published standards.[26] Some insight into the recent changes in GMC policies has been provided by a historical document describing their evolution.[27] The changing policies evolved as a result of a perceived past failure of the GMC to recognize a dangerous doctor, a general practitioner who, over the course of years, murdered dozens of his patients.[27]

FINDINGS

Background of the GMC Cases

Both cases were based on complaints about expert testimony that was given or offered in criminal or protective legal actions stemming from the back-to-back deaths of 2 young infants born to the same couple, Sally and Stephen Clark. The complaints were brought by the Clarks or their relatives. Both pediatricians were found guilty by the GMC of "serious professional misconduct." In the case against Meadow, his testimony had been given in the criminal proceedings of *Regina v Clark*. After the conviction of Sally Clark and during proceedings for

protection of a third infant of the same couple, Southall offered testimony that the wrong person had been convicted based on information first learned from a television documentary that put Stephen Clark, through his own words, alone at the scene of a nonfatal nosebleed and choking episode that preceded the death of the first infant by 10 days. At the time he offered this testimony, Southall was under a suspension of his child protection work imposed by the National Health Service on the basis of a complaint by a citizen. The complaint alleged multiple misdeeds involving all sorts of personal and professional activities, and the National Health Service inquiry cleared him of all of them. Nevertheless, the suspension lasted for 2 years while the fantastic allegations were being investigated.

The Medical Issues

The medical issue in the Meadow case concerned a statistical estimate of the risk of recurrent SIDS presented to the criminal court as part of his testimony. The issues in the Southall case were both the significance of the nosebleed incident and the manner in which Southall inserted himself into the case.

We have considered both issues in great detail. It is our opinion that, although both physicians may have been led to overstate their positions, the testimony that Meadow gave and that Southall offered was within the range of responsible medical testimony based on the available medical literature. In Meadow's case, the prosecutor who called him to testify asked certain questions but not others. Southall seems to have been led by another (possibly conflicted) expert witness who had been asked to evaluate his evidence before it went to the judge in the case and who met with Southall to evaluate his opinion.

The statistic used by Meadow was that the risk of SIDS death in a family such as the Clark family would be 1 in 8543 births, and that the risk of 2 SIDS deaths in the same family would be the square of this number, or 1 in 73 million. This latter estimate came directly from a government report that was in the process of publication at the time of his testimony and was published soon after with the exact same figure that he quoted.[28] The government report included a caution that this squared estimate might not account for risk factors that might be the same for the 2 children in the same family. This issue of the lack of statistical independence not being addressed in his testimony was the crux of the GMC charges against Meadow. A number of estimates made by other authors exist, and some were cited during the GMC testimony.[29–33]

An important caveat that was ignored in the GMC hearings is that SIDS, as currently understood, includes an unknown proportion of infanticides by "soft suffocation."[34] This fact confounds the definition of "innocent SIDS" and any comparisons between SIDS and infanticide incidence. Only Meadow testified about that fact, and his testimony seems to have been ignored despite the fact that 2 prosecution experts were SIDS experts and one of them had written about this fact. Finally, it is essential to recognize that the definition and incidence of SIDS has changed over time[35–37] and will certainly continue to do so.

Meadow testified that in low-risk families (as defined), successive births leading to SIDS might occur about once a century in the United Kingdom. We calculate this event as likely to occur about once a decade or so among educated and employed mature parents if the relative risk for a sibling SIDS death is between 5 and 10, the upper range of relative risk among estimates for siblings published in the medical literature. In charging Meadow, the GMC estimated that a second SIDS death is likely to occur at a rate of 1 in 200 families, an estimate that requires a relative risk estimate of at least 40 or >4 times higher than the highest published risk estimates for siblings.[29–33] Neither Meadow nor the GMC got the statistics quite right, although Meadow quoted an official report; the source of the GMC estimate was not provided. Testifying about statistics can be complicated, but it seems that Meadow's testimony was held to the standard of a professional statistician by the GMC. The incidence of SIDS is unstable and probably falling.

It is worth noting that in *Regina v Clark*, no expert testified that either infant had died as a result of SIDS.

The significance of the nosebleed incident was backed by published work by Southall and others.[5,6,20,21,38–45] Although evidence and argument can be advanced that the physicians' positions may not have been as definite as they may have put them in the context of their formal statements, that evidence and those arguments were easily available to all parties at "all material times." The evaluation of conflicting expert testimony of this sort is the daily bread of juries and judges.

The Conduct of the Hearings

The conduct of the hearings at the GMC seems to have been unfair. Both physicians were represented by counsel employed by a malpractice insurance carrier that had no financial interest in the case. One of their solicitors had recently served as a defense counsel in a case involving alleged suffocation. The GMC's prosecuting barristers (litigators) represented both the GMC and the complainants! The prosecutors called a large number of expert witnesses to guide the thinking of the GMC panels. Cross-examination of these experts by the defense counsels failed to bring out important facts. The defense counsels called no witnesses except the defendants, who pled their own cases and then were subjected to prolonged and unrestrained cross-examination by the prosecutors.

Expert Testimony and Medical Licensing

In conducting these cases, the GMC set itself up to regulate the expert testimony of doctors. This is a novel excursion. In the Meadow case, the GMC held Meadow to standards testified to and established by professional statisticians, not by doctors, as the standard for his expert testimony.

Two of us have attempted to define "irresponsible expert testimony" in child abuse cases.[46] That article contains a recommendation for peer review of expert testimony but stops short of recommending review by state medical boards in the United States. Although expert testimony may be considered a part of the practice of medicine, competent review and regulation is a task that requires great expertise and a great deal of time. The state licensing boards in the United States may lack these capacities.

Whether the GMC has the competence to accomplish this task is also open to question. In both countries there is a paucity of both statutory and case-law signposts, and considerable disagreement exists about the idea of expert witnesses who can or should explain both sides of a case.[46]

PRESENT EFFECTS

In his testimony in the Meadow hearing,[25] Alan Craft (President of the Royal College of Pediatrics and Child Health) states that pediatricians in the United Kingdom are seriously intimidated about child protection cases by the actions of the GMC. The effects on children have not been measured thus far.

COMMENTS

The appeals court opinion setting aside the judgment in the Meadow case coincides with our view that the GMC failed to make its case but convicted the doctor anyway. We concur with the appeals court opinion, but our concerns go beyond that decision.

Child protection by physicians in the United Kingdom is reported to have been crippled by the actions of the GMC. Time will tell if the apparent chilling effect of the actions of the GMC will adversely affect child health in the United Kingdom.

The GMC failed to conduct balanced hearings in the cases involving Meadow and Southall. It also went beyond its competence in attempting to regulate medical expert testimony in child abuse cases, and its own documents reflected difficulty comprehending the self-same statistical issues that it claimed one of the charged physicians had misrepresented.

The counsel that represented the physicians in these 2 cases seems to have failed them by not pursuing testimony by outside experts or clarifying its own role in an earlier trial in which it defended a family against charges of multiple deaths by inventing a defense theory of serial sudden infant death. One of the pediatricians whom the firm was defending had been a prosecution witness in the earlier case.

The rest of the English-speaking countries can learn from these mistakes. Although peer review of expert testimony is needed, regulation by licensing bodies is premature until they can demonstrate both competence and fairness.

The epidemiology of child abuse is clear.[41] We believe that continued application of medical expertise is required, and we hope that physicians will not be discouraged from developing expertise in this area by the incautious incursion of an unprepared licensing authority. Ongoing medical research about child abuse is also essential and should not be discouraged by attacks on researchers. We must encourage the younger generation of child abuse doctors to do their work in both practice and research.

REFERENCES

1. Appellate Court Decision. In: The High Court of Justice, Queen's Bench Division, Administrative Court, Mr Justice Collins. Meadow, appellant; General Medical Council, respondent. 2006
2. Meadow R. Recurrent cot death and suffocation. *Arch Dis Child*. 1989;64:179–180
3. Bools CN, Neale BA, Meadow SR. Co-morbidity associated with fabricated illness (Munchausen syndrome by proxy). *Arch Dis Child*. 1992;67:77–79
4. Meadow R. Munchausen syndrome by proxy abuse perpetrated by men. *Arch Dis Child*. 1998;78:210–216
5. Meadow R. Unnatural sudden infant death. *Arch Dis Child*. 1999;80:7–14
6. Meadow R. Suffocation, recurrent apnea, and sudden infant death. *J Pediatr*. 1990;117:351–357
7. Dix J. Homicide and the baby-sitter. *Am J Forensic Med Pathol*. 1998;19:321–323
8. Cashell AW. Homicide as a cause of the sudden infant death syndrome. *Am J Forensic Med Pathol*. 1987;8:256–258
9. Berry PJ. Pathological findings in SIDS. *J Clin Pathol*. 1992; 45(11 suppl):11–16
10. Byard RW, Beal SM. Munchausen syndrome by proxy: repetitive infantile apnoea and homicide [published correction appears in *J Paediatr Child Health*. 1993;29:324]. *J Paediatr Child Health*. 1993;29:77–79
11. Southall DP, Richards JM, Rhoden KJ, et al. Prolonged apnea and cardiac arrhythmias in infants discharged from neonatal intensive care units: failure to predict an increased risk for sudden infant death syndrome. *Pediatrics*. 1982;70:844–851
12. Southall DP, Stebbens VA, Rees SV, Lang MH, Warner JO, Shinebourne EA. Apnoeic episodes induced by smothering: two cases identified by covert video surveillance. *Br Med J (Clin Res Ed)*. 1987;294:1637–1641
13. Samuels M, Southall D. Diagnosis of recurrent suffocation of children. *Lancet*. 1992;340:787
14. Southall DP, Samuels MP. Ethical use of covert videoing for potentially life threatening child abuse: a response to Drs Foreman and Farsides. *BMJ*. 1993;307:613–614
15. Samuels MP, Southall DP. Video surveillance in diagnosis of intentional suffocation. *Lancet*. 1994;344:414
16. Southall DP, Plunkett MC, Banks MW, Falkov AF, Samuels MP. Covert video recordings of life-threatening child abuse: lessons for child protection. *Pediatrics*. 1997;100:735–760

17. Samuels MP, Southall D. Recurrent apparent life threatening events and intentional suffocation. *Arch Dis Child*. 1999;81:189
18. Bajanowski T, Vennemann M, Bohnert M, et al. Unnatural causes of sudden unexpected deaths initially thought to be sudden infant death syndrome. *Int J Legal Med*. 2005;119: 213–216
19. Bohnert M, Grosse Perdekamp M, Pollak S. Three subsequent infanticides covered up as SIDS. *Int J Legal Med*. 2005;119: 31–34
20. Truman TL, Ayoub CC. Considering suffocatory abuse and Munchausen by proxy in the evaluation of children experiencing apparent life-threatening events and sudden infant death syndrome. *Child Maltreat*. 2002;7:138–148
21. Stanton J, Simpson A. Murder misdiagnosed as SIDS: a perpetrator's perspective. *Arch Dis Child*. 2001;85:454–459
22. Boos SC. Constrictive asphyxia: a recognizable form of fatal child abuse. *Child Abuse Negl*. 2000;24:1503–1507
23. Funayama M, Sagisaka K. Consecutive infanticides in Japan. *Am J Forensic Med Pathol*. 1988;9:9–11
24. Licensing hearing transcript. General Medical Council, United Kingdom. Case of David Southall. 2004
25. Licensing hearing transcript. General Medical Council, United Kingdom. Case of Samuel Roy Meadow. 2005
26. General Medical Council. Guide for referred doctors. Available at www.gmc-uk.org/concerns/complain/guide_for_referred_doctors.asp. Accessed April 8, 2006
27. General Medical Council. Reforms. 2001. Available at: www.gmc-uk.org/concerns/reforms/index.asp. Accessed April 8, 2006
28. Fleming P, Blair P, Bacon C, Berry J, eds. *Sudden Unexpected Deaths in Infancy*. 1st ed. London, United Kingdom: The Stationery Office; 2000:159
29. Oyen N, Skjaerven R, Irgens LM. Population-based recurrence risk of sudden infant death syndrome compared with other infant and fetal deaths. *Am J Epidemiol*. 1996;144:300–305
30. Irgens LM, Skjaerven R, Peterson DR. Prospective assessment of recurrence risk in sudden infant death syndrome siblings. *J Pediatr*. 1984;104:349–351
31. Irgens LM, Oyen N, Skjaerven R. Recurrence of sudden infant death syndrome among siblings. *Acta Paediatr Suppl*. 1993; 82(suppl 389):23–25
32. Hunt CE. Sudden infant death syndrome and other causes of infant mortality: diagnosis, mechanisms, and risk for recurrence in siblings. *Am J Respir Crit Care Med*. 2001;164:346–357
33. Getahun D, Demissie K, Lu SE, Rhoads GG. Sudden infant death syndrome among twin births: United States, 1995–1998. *J Perinatol*. 2004;24:544–551
34. Fleming P, et al, eds. *Sudden Unexpected Deaths in Infancy*. 1st ed. London, United Kingdom: The Stationery Office; 2000:128
35. Beckwith JB. Discussion of terminology and definition of the sudden infant death syndrome. In: Bergman A, Beckwith JB, Ray C, eds. *Proceedings of the Second International Conference on the Causes of Sudden Infant Death*. Seattle, Washington: University of Washington Press; 1970
36. Krous HF, Beckwith JB, Byard RW, et al. Sudden infant death syndrome and unclassified sudden infant deaths: a definitional and diagnostic approach. *Pediatrics*. 2004;114:234–238
37. Willinger M, James LS, Catz C. Defining the sudden infant death syndrome (SIDS): deliberations of an expert panel convened by the National Institute of Child Health and Human Development. *Pediatr Pathol*. 1991;11:677–684
38. Berger D. Child abuse simulating "near-miss" sudden infant death syndrome. *J Pediatr*. 1979;95:554–556
39. American Academy of Pediatrics, Committee on Child Abuse and Neglect. Distinguishing sudden infant death syndrome from child abuse fatalities. *Pediatrics*. 2001;107:437–441
40. Becroft DM, Thompson JM, Mitchell EA. Nasal and intrapulmonary haemorrhage in sudden infant death syndrome. *Arch Dis Child*. 2001;85:116–120
41. Makar AF, Squier PJ. Munchausen syndrome by proxy: father as a perpetrator. *Pediatrics*. 1990;85:370–373
42. Milroy CM. Munchausen syndrome by proxy and intra-alveolar haemosiderin. *Int J Legal Med*. 1999;112:309–312
43. Rubin DM, McMillan CO, Helfaer MA, Christian CW. Pulmonary edema associated with child abuse: case reports and review of the literature. *Pediatrics*. 2001;108:769–775
44. Marcovitch H. Inexplicable pulmonary oedema. *BMJ*. 1989; 298:1383
45. Krous HF, Nadeau JM, Byard RW, Blackbourne BD. Oronasal blood in sudden infant death. *Am J Forensic Med Pathol*. 2001; 22:346–351
46. Chadwick DL, Krous HF. Irresponsible expert testimony by medical experts in cases involving the physical abuse and neglect of children. *Child Maltreat*. 1997;2:315–321

Meadow, Southall, and the General Medical Council of the United Kingdom

David L. Chadwick, Henry F. Krous and Desmond K. Runyan

Pediatrics 2006;117;2247-2251
DOI: 10.1542/peds.2006-0429