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NETWORKS & TECHNOLOGIES

Randell Alexander, MD, PhD

Director, Center for Child Abuse

Associate Professor of Pediatrics

Morehouse School of Medicine, Atlanta, GA

Guest Editor

This issue of the *Advisor* illustrates some of the explosive progress in technologies and networking that has occurred in the last 5 to 10 years. Many know some of this, but the full extent of what is currently available and its potential is known to only a few. The articles in this issue explore some of the ways in which new methods are currently being implemented in select locations and point the way to further development and expansion of the new technologies.

These articles are strongly medically focused. One reason is that medicine has a long tradition of using technology as part of its practice. Indeed, the formal recognition of the subspecialty of forensic pediatrics may be driven as much by access to its "toys" as for its content (not unlike pediatric cardiology). Perhaps another reason is that medical applications for technologies and networking actually have predominated to date in the field of child abuse. However, the challenge is not only to watch the emergence of high tech in medicine, but also to discover innovative ways in which all other disciplines also may benefit. Some progress is being made in this regard, but we all have a long way to go. Remember that 10 years ago, cutting edge computers with 20-megabyte hard drives were the rage. How far we have come since.

The explosion of resources and electronic means to access them will have strong implications for those working out in the field, those in agencies and institutions, and in court. Along with access will be the refinement of methods of teaching in ways that more clearly communicate. Education will incorporate ongoing interactive modules with assessment methods helping to track skills and maintain demonstrable proficiency.

In the Vision for the Future article, I hoped to encourage thinking about some of the ways in which we might be operating in the near future. More telecommuting time, greater access to information in a usable form, and tighter networking will be operational for many currently working in child abuse. Indeed, the rate of development of systems and technologies in the past likely means that many of these predictions will actually underestimate the possibilities. As is true for this article as well as the others, none of the descriptions includes any technology or networking that is not potentially available now. It is today's science, tomorrow's political will, but not science fiction.

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VISION FOR THE FUTURE

Randell Alexander, MD, PhD
Director, Center for Child Abuse
Associate Professor of Pediatrics
Morehouse School of Medicine, Atlanta, GA

May 25, 2010. 9:03 a.m.

The medical director sits down at the computer and checks e-mail. About an hour's worth of discussion on the list serve alone. It seems the topic is about getting more time in the medical student curriculum. Maybe later today... He logs into his center's network software – looks like a peer review session in about an hour. Better check yesterday's medical exams.

One of the center's physicians has a question about a finding on a sexual abuse examination of an 8-year-old. On another case, the nurse practitioner consulted on a 2-year-old boy in the burn unit at the end of the day. Looks like both of the cases not only had interesting injuries, but as usual they found other medical, developmental, and social problems requiring evaluation and treatment. The skeletal survey of the toddler, which shows a metaphyseal fracture of the left radius, already has been attached to the electronic record of the medical chart. The DA and police will get an electronic report later today with pictures and the abnormal x-ray, along with hyperlinks that will provide references and explain these types of injuries in greater detail. A forensic interview already has been set up for the 8-year-old later this morning – maybe if the medical director has time at the end of the day, he will check the video stream of that interview and catch the highlights of what was found. Fortunately, the inhouse police and CPS already are working with the interviewers and have begun the appropriate community interventions. Maybe there are a few minor suggestions for both the examiners, but nothing substantial to add. He flags the two cases for the interdisciplinary students and notes that they will discuss them tomorrow.

Pausing a moment, the director thinks about how well trained the staff is these days – certainly an improvement over the old days before the CAPTA reauthorization of 2001. He remembers when the Administration and Congress authorized \$100 million for University Child Abuse Programs (UCAPs). Took a page from the Developmental Disabilities University Affiliated Programs that had evolved for several decades. Like them, the Center was one of the first to set up an interdisciplinary training, research, and clinical program. Only 30 Centers in the first wave, now something like 70. Fortunately the states helped with the funding once they realized their obligation to protect children and how these centers of excellence eased some of the burden off CPS and made it easier for the courts. It even helped to bring stronger research skills to the child abuse prevention efforts. Of course, the federal match requirements helped.

The other cases look pretty typical, nothing that seems to be a problem. The DA's office should be receiving the reports this morning. It should be a pretty typical bunch of cases for the weekly multidisciplinary case conference. Checking his calendar, the director sees that he will be able to attend in person after all. Last week, he had to join by teleconference from Seattle.

Two cases just came in for review this morning from another center in the state, each physical and sexual abuse case looking for a second opinion. The first case isn't too bad, but the sexual abuse case is a puzzle. He makes a note to refer the case to a colleague on the other side of the country who specializes in this particular esoteric question. Probably will just send her the whole e-file and see what she thinks. Fortunately her UCAP salary will cover the consultation; otherwise, she could bill even if it is across state lines under the Uniform Medical Consultation Act of 2007.

An instant message just came in. A real-time sexual abuse evaluation from one of the satellite centers is being set up for early this afternoon. It is several hundred miles away, but the good news is that the nurse there is one of his most insightful staff members. After he participates in the interview and examination of the child via the telecommunication setup, he will have to remember to invite the nurse for a visit to the Center.

If the case is as bad as it sounds, he might have to testify. Luckily, the county where the satellite center is located is not so small that they don't have the proper teletestimony equipment. He should be able to save the time and expense of traveling, yet still make a real-time "appearance." Usually juvenile court is pretty good about this. But the odds are that the Center's findings will be clear enough that the case won't go to court. If it does go to trial, he will have to make sure that the DA has the proper program for her personal digital assistant so that she can follow direct and cross-examination guidelines and look up references and lines of argument for any issues that might arise as she sits in the courtroom. He reflects on how archaic it was just a few years ago, when attorneys relied mostly on memory and did not have instant access to a full list of resources via their wireless communicators. And the boxes they used to wheel into court ... it is pretty rare to see that anymore.

Checking the list of participants who electronically logged into one of the Center's recent teleconferences on legal issues and child abuse, he sees that the prosecutor in that county knows about

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the latest computer simulation software that she can select to illustrate the physical findings. By plugging the specific findings of this case into the program, it will generate an animation that will show locations and mechanisms of injury in general and weave actual footage of the case into the presentation. The latest program seems pretty seamless, but there is always the odd finding that could not have been anticipated by any program. Maybe this is job security for the humans, now that the computers and networks are so good for most everything else.

Time for the peer review session. This one is intra-state, and the medical director is in charge. Several cases are presented, and the examiners around the state are selecting their answers. Next comes a discussion. Now that the connection problem with the far Southwest site has been cleared up, he is receiving everyone's voice and image clearly. While the discussion proceeds, he checks the examination scores over the last month for the cases that were posted to their intranet. Everyone is keeping within the acceptable range. The discussion today is lively, and at the end there is time for procedural issues. The Northwest site is experimenting with infrared and ultraviolet scanners to see the incidence of "invisible" old lesions in patients as they come in. It seems that the neglect cases are the biggest challenge – an increased number of old lesions in some, but whether they were unreported physical abuse or poor supervision is proving to be hard to distinguish. In about 6 months there should be enough experience to decide whether the entire state system should get on board with this technology.

Finishing the session, the director reviews the day's schedule again. Meeting with state legislators coming to view the Center's operations at 3 p.m. State APSAC meeting at 5 p.m. Better get ready for the real-time sexual abuse evaluation early this afternoon. E-mail will have to wait. Because he has to meet with the legislators anyway, he might as well finish getting dressed, log off his home computer, and go into work. At least he has missed the worst traffic.

December 19, 2010. 2:23 p.m.

The CPS investigator pulls into the driveway. Checking her global positioning system (GPS) attachment to her personal digital assistant (PDA), she sees that she is in the right place. Before she approaches the house, she mentally reviews the past 24 hours.

Yesterday morning she went into the office for the staff meeting, held three times each week. Even though some districts use telecommuting links and the staff can choose whether to be at home or the office, her district is behind on getting the necessary equipment. Besides, she appreciates the periodic direct human contact. After a review of new state mandates and key cases, the meeting concluded with each investigator logging in for a 10-minute mini-lesson. Since this feature was added to the educational program three years ago, annual scores on didactic and

interactive evaluations had shown a distinct improvement.

The rest of the morning was spent reviewing and updating files. In the afternoon, she attended the county child death review team meeting and then visited a child in the hospital who had several broken bones.

This morning she worked on several cases, interviewing a number of professionals, including her favorite police officer. Late this morning she received the report that brought her to this house. The allegation was that a 2-year-old was burned in a bathtub. First she reviewed the data files automatically downloaded with the investigative referral. No prior CPS involvement, no police record, but did receive intensive prevention services until the mother dropped out about 4 months ago. No stated reason why. Along with the police officer, she responded to the child's location in the hospital, per protocol, within 60 minutes. The child was in satisfactory shape in the burn unit, and interviews with the doctors went fairly quickly. They thought it looked like the child was dipped into the tub. They gave her a printout of the medical findings to date, along with photographs from their electronic record. She also was able to get their report downloaded into her PDA as an eventual attachment to the case report. The mother was not there, but was reportedly home taking care of another child. The police officer normally would come with her to the house, but had been called away for another emergency.

Approaching the house, the investigator makes several quick dictations into her PDA. The mother answers and has a noticeable black eye. Coming in, and logging her location by a touch of a button, the investigator begins a general conversation. During the conversation, she makes periodic electronic notes. At several key points she has the mother speak into the PDA. These voice files will be added to the CPS electronic record when it is completed.

It turns out that the mother has reported her boyfriend before for violence. He was directed to take a violence management course and completed it four months ago. Yesterday he was babysitting her 2- and 5-year-old children when he burned the former and bruised the latter. When she got home, she got hit. He left and she took her children to the ER.

The investigator discusses how such cases are managed and what options are available. She identifies a therapeutic need for the mother and her children. She dials up a therapist for the mother. The therapist is not in, but an interactive video automatically answers. The investigator has the mother watch it on her PDA. She sets up an appointment and prints out directions for the mother. Another therapist in the office can see the 5-year-old now. The therapist gets on the screen and talks briefly to the child over the PDA and sends some developmentally appropriate information and games to the child's e-mail address. This initial screen-to-screen contact helps to break the ice for the face-to-face contact to come later.

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The mother admits that she quit the prevention program at the urging of her boyfriend. She now agrees to resume it. The investigator looks up the program contact information and gets one of the staff on-line. The mother has a discussion with the prevention worker about resuming the program, working on some remedial tasks, and inserting subprograms more specifically on family violence. The prevention worker sends a brief tutorial to the mother's e-mail for her to complete before a visitor comes tomorrow.

The investigator scrolls through a guideline for this situation and checks to see that she has covered everything. She finishes up with the mother and sets up an alert in her PDA for several days from now to check if the mother complies.

Outside, she forwards her information to the office. Automatically the case is abstracted and added to the master file for discussion at tomorrow's staffing. She sends off her findings to the police officer and asks to be contacted by the end of the day. Checking her messages, she finds nothing that requires a personal visit today. Time to head home, maybe put in another hour on the computer, and finish up with the latest 15-minute personal stress-reduction programming.

Cooper Surgical is honored to be in partnership with APSAC in supporting continuing education and training. The abuse of children in America is a serious issue that affects the very nature of our humanity.

Cooper-Leisegang offers a complete line of Colposcope and Image Documentation Systems specifically designed for use in Pediatric and Adult Sexual Assault and Physical Abuse assessment. This includes image capture, storage, retrieval and secure Internet transmission for peer review and consultation. We have matched the highest quality optical systems with specially designed stands for adult and child forensic documentation. State-of-the-art Digital Image Capture and Software designed for forensic documentation complete our offering.

Technology is increasingly playing an important role in the day-to-day activities of all the interdisciplinary organizations that come together to address child maltreatment. Understanding the nature of emerging technologies will help us reach greater efficiencies in our role of supporting APSAC and its membership by continuing to provide the best technology.



HOW TO DESIGN A TELEMEDICINE SYSTEM THAT ACTUALLY PROTECTS CHILDREN

J.M. Whitworth, MD

Professor of Pediatrics

University of Florida School of Medicine

Medical Director

State Child Protection Team Program, Department of Health
Children's Medical Services, State of Florida

New technology allows us to provide a myriad of services at a great distance. This is a far cry from the days when the distance of the examiner from a patient was limited by the length of stethoscope tubing. Excitement associated with this technology often drives a desire to expand services to new patient populations without first carefully considering the effect on the patient. In general, pediatricians have been slow to embrace virtual assessment because of the importance of the interaction between the physician and the parent/child dyad. This focus is appropriate and should be the driving force behind system design.

Electronic system design is easily accomplished by any qualified engineer, and if primary clinical considerations are not addressed, the installed equipment sits unused at the evaluation site, a constant reminder of a waste of precious resources that could have gone toward the care of children. While technology is important in supporting clinical activities, the clinical activities always must be central to the planning, implementation, and operation of a system.

A successful telemedicine program begins with a detailed needs assessment, utilizing an early focus on profiling the target consumer for the program. If the people surrounding the target consumer are unwilling or unable to use the electronic equipment or service, the service will languish. Even if the program is designed for professional quality assurance, the actual and potential impact on the patient still must be considered. A quality assurance program is quite different from one designed to be of direct benefit to the child and his family. It cannot be assumed that families and children, by definition, would rather not travel to a center to be evaluated or that the child will automatically find a virtual experience equal to an in-person encounter. It also cannot be assumed that professional personnel actually will use the equipment if they find it intimidating or intrusive. In brief, the concept of "if you build it, they will come" does not work.

The use of telemedicine in child abuse cases is not new. There are several programs in which "store and forward" technology has been used for consultation with centers of excellence and for quality assurance and peer review. The use of telemedicine technology for real-time evaluations, however, is new and offers challenges as well as significant rewards for clinicians and children. In short, it is an effective tool to extend expertise to rural communities, increase the accuracy of diagnosis, reduce unnecessary investigations, and extend the range of multidisciplinary teams. Our three years' experience has convinced us of the effectiveness of this tool in many assessment activities, but also has emphasized the need for careful preplanning.

While technology is important in supporting clinical activities, the clinical activities always must be central to the planning, implementation, and operation of a system.

The design of a child-centered telemedicine program for abuse begins with a careful analysis of the status of children's examinations in the focus community. The needs assessment must answer several questions.

Q. Do the individuals and programs perceive a problem with quality or access to examinations?

A. If neither is true, your program is doomed.

Q. Who is going to be working directly with the patient at the distant location?

A. If there is a sensitive, committed medical professional who can be trained in all aspects of crisis intervention, AND can learn to act as your hands, AND can be trained to use the equipment, you may succeed.

Q. Is there an adequate patient population to maintain examiners' skills?

A. An examiner who sees one patient a month will not maintain adequate skills.

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TELEMEDICINE & DISTANCE LEARNING IN THE CHILD ABUSE INTERVENTION FIELD

Robert W. Block, MD

Professor of Pediatrics, University of Oklahoma
Chief Child Abuse Examiner, State of Oklahoma

A frightened child huddles under the sheet that covers all of her except her exposed genitalia, which are being examined by a gentle, competent physician. In order to have more than one opinion on the medical findings, and to teach trainees about this exam, several other people are gathered to observe the examination. In another town, some distance away, a lonely physician with good intentions but minimal training conducts another sexual abuse examination, unclear about what he is seeing. He plans to refer his patient to a child abuse specialist to repeat the exam and render an opinion. Neither of these scenarios needs to play out today or in the future. The field of child abuse evaluation has access to advancing technologies that are rapidly improving the abilities of examiners to share information, obtain quick and multiple consultative opinions, train newcomers, and conduct excellent peer review. This paper briefly discusses a variety of technologies currently available.

For training, the standard method of taking photos during a child abuse medical exam and reviewing them as slides is still widely used. For sexual abuse medical evaluations, many professionals have found a videotape of the exam allows a more complete educational experience. A well-taken video can accurately document all physical findings, from a normal exam to pathologies, and the tape can be reviewed for purposes of education or specific case review with other professionals. Using this simple method, child patients can have privacy protected during examinations, but the findings can be used for multiple purposes after the fact. It is important that before this method is used, all issues of consent and confidentiality have been reviewed and appropriate protections implemented.

From the dawn of humankind, conversation among people has been a traditional method of sharing ideas and opinions. We can now take advantage of new computer technology to create information networks that allow several hundred professionals to simultaneously converse electronically. Perhaps the most widely

used information network in the field of child protection is the Special Interest Group on Child Abuse (SIGCA) listserv e-mail group, based at Cornell University. SIGCA also has a web address, www.child-abuse.com/sigca/, which is available by paid subscription. Interested professionals should contact Tom Hanna at tph3@cornell.edu. The list serves medical professionals by allowing them to post a case synopsis, sometimes with e-mail attachment photos, for review and comment by other members of the list. In this fashion, physicians and other health professionals can access second opinions quickly. The list serves as both an educational consultation tool and as an information exchange education site.

Probably the most widely used distance learning technology is the rapidly evolving field of video conferencing. Once limited to hard-wire or satellite connections, which are very expensive, new Internet technologies can bring reasonably good connections between two or more sites without a great deal of expense or difficulties. Video conferencing allows meetings, peer review sessions, case reviews, and educational conferences to reach a variety of professionals without requiring travel to a single location. The basic equipment needed at each site is only a good video camera, a monitor, a sound system, and perhaps a document camera. Used by many colleges and universities, these systems deliver reasonable quality video and audio for educational sessions and meetings.

Traditional telemedicine usually refers to the exchange of medical case material from one site to another. With more sophisticated and expensive systems, this can be done in "real time," involving contact between a patient and a physician at a remote location. More often, pioneers with this technology in the child abuse field have used the "store and forward" method, where images are recorded and sent to a consultant who can view those images simultaneously with the sender, or can review them later and return the images with comments. Images transmitted can be stills captured from videotape, photos scanned into a computer, digital photos, x-ray images or even (with some technologies) short video clips. States like Florida and Missouri have funded

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It is important that before this method is used, all issues of consent and confidentiality have been reviewed and appropriate protections implemented.



and implemented effective video-linked networks of advocacy centers or evaluation sites.

This level of information exchange raises new issues regarding confidentiality and consent. When a specific case is shared with a second medical professional and a consultation is requested, the following issues must be addressed: Does the sharing of exam information constitute a physician-patient relationship? Is there medical liability? Who will pay for the consultation? Is the consulting physician now subject to subpoena for any court case? What are the state laws regarding licensure for "telemedicine?" What part of transmitted information is a part of the original record? What part is now a new medical record at the second location? Has the transmission been protected from access by unauthorized people?

Technologies in the field of distance learning are evolving rapidly. We might speculate that in the not-too-distant future we could view streaming video of talks given at national conferences, or even real-time connection to talks, workshops, or ask-the-expert sessions, in the comfort of our own computer-equipped home or office.

As new photodocumentation, especially video techniques, and video-conferencing methodologies continue to improve, there will be fewer frightened children worried about multiple observers during what should be a very private examination, and there will be fewer lonely physicians in remote areas wondering about the meaning of findings on an examination. With easily shared information comes improvement in patient care, improvement in training, more rapidly disseminated opinions and data, and even more quickly acquired consensus.

The following pediatricians may be able to provide additional information and answers to questions:

Lori D. Frasier, MD,
University of Missouri at Columbia
frasierl@missouri.edu

Lawrence Ricci, MD,
Spurwink Clinic
RicciL@aol.com

J.M. Whitworth, MD,
Jacksonville, FL

Key to permanency and
the ability to expand the
scope of work to meet
the enormous needs
of the community



REFLECTIONS ON CREATING FISCAL SOLVENCY & PROGRAM PERMANENCY

Martin A. Finkel, DO, FACOP
Associate Professor and Medical Director
Center for Children's Support
School of Osteopathic Medicine
University of Medicine and Dentistry of New Jersey

The opportunity to care for maltreated children and their families is one that few clinicians elect to pursue for a variety of reasons. Yet in spite of the emotionally challenging nature of providing care for abused and/or neglected children clinically, great professional satisfaction accrues to those who work in the field. Even though medicine's involvement in addressing maltreated children now spans a period of almost 40 years, each of us still has the opportunity to build a piece of the foundation of this emerging field of practice. We can still be pioneers and contribute significantly to the knowledge base of the field and fill a critically important service need within our respective communities. One of the most rewarding aspects of working with maltreated children is our interaction with colleagues in child protection, law enforcement, mental health and the systems that coordinate assessments and the protection of children. Our ability to truly step out of our offices and into the community is an opportunity offered by few other medical disciplines.

The scope of our practice can range from being the community pediatrician who is willing to see children suspected of being abused, to being a leader in the development of child abuse diagnostic and treatment services and/or a faculty member at an institution committed to clinical service, research and education. The opportunity for professional growth is enormous. In an ideal world, our growth would only be constrained by the desire to do and to learn. However, the formula for success is not quite so simple. The ability to contribute and develop in this field is directly tied to the fiscal realities of the cost of providing services.

The dilemma

How do we balance our desire to provide clinical services yet justify inadequate reimbursement to ourselves or our respective practices or institutions? In current economic times the answer for most of us is quite simple: It can't be done, or it can only be

done for a limited period of time. Ultimately it will be either the accountant looking at the accounts receivable or our institution's fiscal officer dictating to the department chair to "pull the plug." So what does this mean for each of us? It means that if we enjoy doing this work and want to create a career path, each of us must think about the fiscal realities of providing clinical services. We must assure ourselves and our institutions that we can be fiscally solvent. Fiscal solvency is the key to permanency and the ability to expand the scope of work to meet the enormous needs within the community.

For whom does the bell toll?

The statutory mandate to investigate allegations of abuse rests solely on the shoulders of every child protective agency in the country, and these agencies carry the responsibility to assure the availability of highly specialized medical and mental health services. If we don't own the statutory responsibility to investigate allegations of abuse and neglect, why do we act as if we have a statutory responsibility to provide our professional time and clinical services for free or substantially below cost?

Fiscal solvency is the key to permanency and the ability to expand the scope of work to meet the enormous needs within the community.

Our expertise can be of enormous assistance to CPS and law enforcement as they investigate allegations of abuse. Our expert opinions are many times pivotal, leading to the substantiation of abuse and ultimately effective intervention, protection and treatment for child victims. Our professional expertise has value that must be recognized well beyond the accolades of being a good doctor and the award of a plaque.

It is not the responsibility of physicians or psychologists to provide pro bono services to a state agency. The partnership that medical and mental health providers create with state agencies is critically important to the welfare of children and society at large. Early diagnosis of abuse and access to effective therapeutic interventions are the keys to improved long-term outcomes.

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Individuals in positions of leadership must understand that they cannot rely on the goodwill of individual practitioners or institutions to support the cost of services provided and needed to accomplish a statutorily mandated function of their agency. It is the practitioner's responsibility to articulate the need for state support in a variety of forms.

Securing state support

If one begins with the premise that the work we do has value, then the first task is to determine the value of the services we provide. With this knowledge, we are positioned to articulate our needs. We can begin by asking for contractual reimbursement for the actual cost of our services plus appropriate overhead. No business would ever sell an item at less than cost, so why should we? Even when services are reimbursed on a cost-plus basis, most programs will be unable to sustain themselves. Since the state requires highly specialized clinical services whether one or a thousand children are seen, we should seek funding to assure the availability of services regardless of volume. This strategy shifts the responsibility for appropriate utilization to CPS. Medical and mental health diagnostic and treatment services are underutilized throughout the country; only a small percentage of children receives the services they need and deserve.

Creating a legislative bill

A successful strategy in New Jersey was to propose legislation that created a statewide network of regionalized diagnostic and treatment centers. This approach appealed to decision makers in CPS and the legislature because it assured the availability of a core group of services that previously existed on a tenuous basis. Legislators became uncomfortable when asked how they would feel if the emergency room in their community was only available when the local doctor had free time. This simple example drove home the importance of securing a safety net for the provision of services critical to the validation of abuse allegations.

However, it is not sufficient to create a law establishing the availability of services if there is no fiscal attachment to support the development of services. Strategically, when seeking funds, it is useful to assure CPS leadership that any legislative initiative will add revenues to their budget. This approach is more likely to be successful than one that requires CPS to find money within their current budget.

Seeking a state appropriation

An alternative to the long and laborious task of drafting and passing legislation is seeking a state appropriation. This approach is generally a shorter-term solution and may be the best interim strategy while pursuing legislation. Appropriations allocate funds to address specific needs while developing long-term strategies and partnerships. When seeking an appropriation it is important to

first identify key individuals in state government who are interested and have a track record of advocating for children and families. Once a potential sponsor is identified, the problem must be described and a solution proposed. Directors of state agencies/departments cannot generally advocate for themselves through the legislature and must address their programmatic needs through the state's budgetary process. However, if state division directors or department heads are asked about a particular program and request for an appropriation, they can influence the outcome of the request. The success of seeking an appropriation is grounded in a superb reputation for one's expertise and the state's prior experience with a given program/individual or institution.

The New Jersey legislature appropriated two distinct sources of funding to seed the development of a network of regional diagnostic centers. The legislation that established the centers also appropriated \$1.5 million, which was supplemented by an additional \$900,000, for a total of \$2.4 million. These funds support primarily key professional staff as well as overhead and equipment. Because the appropriated money was insufficient to completely cover the cost of service provision, regional centers by statute are permitted to charge for services provided. It is anticipated that as the Center develops, the legislature will again be approached for additional funds to expand the scope of activities.¹

The State of Florida also has provided significant funding to create a very successful but different model for the provision of medical diagnostic services for child abuse victims. The Florida model utilizes community physicians with strong central oversight and support. Each state must craft legislation in a manner that addresses its unique population, geography and professional talent to propose a model that can work.

Summary

Securing fiscal solvency and program permanency begins with valuing the work that you do and having others value your work. Ironically, many of us find it more difficult to ask for the necessary help to provide services to abused children than to hear the abuse that children endure or to see the physical and emotional effects of their maltreatment. Few legislators would want to walk in our shoes. If we want to continue to develop the field and provide medical and mental health services, we have an obligation to speak up and inform our legislature about the need to provide specialized services. The failure to provide specialized services will ultimately undermine public confidence in child protective services. The legislature and Governor of New Jersey responded to the needs of its most vulnerable citizens. It is up to you to ask.

¹ The legislation that established regional Centers in 1998 is Assembly Bill No. 1301, which can be viewed by going to www.njleg.state.nj.us/html/bill9899.htm



COLPOSCOPY IN THE 21ST CENTURY

Nancy D. Kellogg, MD

Associate Professor of Pediatrics
University of Texas Health Science Center at San Antonio
Medical Director
Alamo Children's Advocacy Center

The use of photocolposcopy is a recent development in the field of child sexual abuse. Research articles and references to photodocumentation with colposcopes in the evaluation of child sexual abuse first appeared in the 1980s (Teixeira, 1981; Woodling, 1986; Heger, 2000). In these initial studies, photocolposcopy was touted as an investigative tool; various studies (Teixeira, 1981; Norvell, 1984; Woodling, 1986) reported that the colposcope increased detection of genital injuries by 10 percent to 40 percent. The availability of photographic evidence for legal proceedings also garnered much interest and support for this technology.

Once introduced, photographic documentation of child sexual abuse examinations quickly became an accepted standard of care. The recognition of the colposcope as a valid diagnostic tool provided an important benefit to the child as the review of photographs replaced the need for repeat examinations (Heger, 2000). In addition, the colposcope offered unique advantages over other sources of magnification and photography. These advantages and features include an excellent light source, a variety of magnification options, direct measurement of hymenal orifice dimensions, photography (Emans, 2000) and various options for hands-free image capture (for example, foot pedal shutter release). By 1990 the benefits of photocolposcopy were recognized by most centers specializing in child abuse (Heger, 2000). In a survey study of 122 experienced clinicians, 85 percent used photocolposcopes (Kellogg and Adams, 2001, in preparation).

Photodocumentation has provided a valuable adjunct for studies of normal anogenital anatomy and patterns of genital injuries and healing (Emans, et al, 1987; Herman-Giddens, 1987; Pokorny and Kozinetz, 1988; McCann, et al, 1989; McCann, 1990; Berenson, 1991; Kellogg and Parra, 1991; McCann, et al, 1992; Berenson, et al, 1993; McCann and Voris, 1993; Adams, 1996). As understanding of normal anogenital anatomy improved, the proportion of sexual assault examinations with "positive" findings decreased, as did the importance of colposcopy as an investigative tool. However, photodocumentation with colposcopes has remained an important research tool and has become important in teaching and peer review of examination findings.

**As the range of
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Technological improvements have significantly enhanced the use of the colposcope as a teaching tool. Most colposcopes have a video attachment capability enabling the student to more readily view the genital anatomy on a computer monitor during an examination. Still images or video clips can be captured and viewed immediately following an examination. This review demonstrates variations in anatomy associated with different examination techniques and different magnifications. The learning experience can then be supplemented with a review of colposcopic slides or photographs and discussion of documentation and

interpretation of pertinent examination findings. The availability of different magnifications (for example, 7.5x, 15x, 30x) enables the student to more accurately assess and interpret various findings. For example, human papillomavirus lesions may be detected earlier with 15x magnification (Kellogg and Parra, 1995) than with lower or no magnification. A green filter may accentuate areas of increased or decreased vascularity such that scars become more apparent. The digital video camera attachment can be removed from the colposcope and used to photograph physical abuse or assault injuries. Immediate feedback from the computer monitor allows the clinician to adjust image quality and focus during the examination; the image also can be printed immediately following the examination if investigative agencies require such documentation. New software systems enable the clinician to create patient files of images from sexual abuse examinations, images from physical abuse examinations, and any demographic or abuse-related information. If a patient returns for subsequent evaluations, the clinician may directly compare previous and subsequent images to assess changes in examination findings.

As the range of clinician knowledge and expertise has broadened, the need for peer review of photodocumentation has increased. Studies (Sinal, et al, 1997; Paradise, et al, 1999) have documented a lack of consensus among clinicians in the interpretation of genital and anal findings. The greatest discrepancies in agreement are among less experienced clinicians and in the interpretation of nonspecific findings (e.g., erythema, excoriations) or variations in normal anatomy (Sinal, et al, 1997; Paradise, 1999). Peer review of colposcopic images provides opportunities for

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expert consultation, discussion of research articles, and improvement in consensus of opinions regarding examination findings. Peer review also provides professional support in an emotionally burdensome area of pediatrics with a high turnover rate among relatively few trained clinicians. Peer review may indirectly contribute to sustaining involvement and building expertise among clinicians by providing a means for professional and emotional support.

As we enter the 21st century, the use of colposcopy for peer review has expanded. Telemedicine provides a cost-effective, accessible and efficient means of consultation among experienced "hubs" and remote "satellite" sites. The use of telemedicine for child sexual abuse examinations has emerged from the need of less experienced, remotely located clinicians to consult with more experienced clinicians and the desire of experienced clinicians to more readily exchange and analyze case data to further knowledge and research in this field (Kellogg, Lamb, Lukefahr, 2000). Images and case data are transmitted modem-to-modem or encrypted and transmitted over the Internet. At least seven states have established telemedicine systems for consultation and review of colposcopic images (Kellogg, Lamb, Lukefahr, 2000).

Telemedicine also poses technical and legal challenges. Most statewide telemedicine systems have reported inexperience with the technology and lack of technical support resulting in underutilization of the telemedicine equipment and consultation capabilities (Kellogg, Lamb, Lukefahr, 2000). Legal issues include the following:

- maintenance of patient record confidentiality both within the facility and when images are transmitted to, or received from, other sites;
- need for patient consent when sharing information through telemedicine;
- need for license reciprocity in other states when consulting across state lines; and
- liability of the consultant in the care rendered to the patient by the consulting remote site clinician.

While at least 13 states have legislated insurance reimbursement, most will reimburse only live interactive telemedicine consultation (Grigsby and Sanders, 1988), not "store-and-forward" reviews of images commonly used for sexual abuse evaluations. The success of telemedicine systems for child sexual abuse examinations will likely depend on the establishment of a technical, financial and professional infrastructure that encourages and maintains clinician involvement.

The use of photocolposcopy does not ensure clinician competence or accuracy. The usefulness of this tool is dependent upon the quality and extent of training provided to the user. Accurate *photodocumentation* depends on the clinician's examination skills and appropriate utilization of technology. Accurate *interpretation* of photographs depends on the clinician's knowledge of normal and abnormal anogenital anatomy, experience, and availability of an experienced consultant.

The evolution of photocolposcopy use for child sexual abuse has kept pace with the advancement of medical knowledge in this field. This technology has provided significant enhancements in the detection, documentation, legal representation, research, clinician training, and case peer reviews of child sexual abuse. Photocolposcopy will likely play a role in future developments, which include improvements in the consistency of clinician documentation and interpretation of examination findings, a greater emphasis on peer review, and the development of statewide telemedicine networks.

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COMPUTER GRAPHICS IN CHILD ABUSE & NEGLECT

James Lauridson, MD

Director of Advanced Graphics
State of Alabama Office of Prosecution Services

Rob Parrish, JD

Deputy Director
National Center on Shaken Baby Syndrome
Odgen, Utah

Telling others about an abused child is an essential step in obtaining justice, attempting prevention, and teaching awareness. Consider the following teaching assignment:

You must teach a group of 12 students ranging in age from young adults to retired seniors about complex medical issues. The students may have no background in science and may not even have a high school education. They were ordered to be present for your teaching. They have been taken from their regular occupations and families and given a few dollars a day to be present. Sometimes they will not be allowed to go home at night. They will not be allowed to ask questions, and they cannot discuss any of your teaching among themselves. On top of that, everything you say will be challenged in an attempt to discredit your teaching or you personally. These challenges are not intended to clarify the truth of what you say, but are aimed at raising confusion in the minds of the students (called "reasonable doubt"). The challenges may even include teaching opposing ideas that may not be based on science. In the end, these students will be required to offer an opinion as to whether your teaching has any merit.

Sounds like fun, doesn't it? For those who have testified in court, the above scenario is not far from the reality of the courtroom experience.

Modern jurors have been raised on a strong diet of television, multimedia and computer graphics. As a result, jurors respond best to quick, stimulating and graphical presentations. They are less receptive to lectures using jargon. They have short attention spans and little patience for abstract ideas. Because only reasonable doubt is necessary for acquittal in most courts, opposing counsel need only produce confusion in the minds of the juror. This is easily accomplished with questioning techniques that attack credibility or by producing contrary experts who may engage in marginal science.

One solution is to present testimony in a stimulating graphical manner. Complex concepts can be presented in a graphical and sometimes animated form. This presentation can be repeated

during summation arguments by the prosecutor so that the juror is again exposed to the information.

Types of graphics

Teaching graphics packages are intended to present general concepts to jurors without dealing with specifics of a given case. Examples are mechanisms of long bone fractures in abuse, effects of diffuse axonal injury, and details of immersion burn patterns. This is a modern version of the blackboard and chalk teaching that has long been accepted as a proper function of expert court testimony. The advantages of using sophisticated graphics are obvious. There is a pitfall to be avoided in using these types of graphics,

however: The graphics must be accurate and consistent with current mainstream thought. An inaccurate representation may mislead jurors and lead to the possibility of a valid challenge. For example, a commonly seen animation of brain movement during shaking depicts the brain as being injured by striking the frontal and occipital skull. This graphic clearly is not consistent with

observed injury patterns or with accepted understanding of diffuse axonal injury. Teaching graphics packages must be detailed enough to be accurate and must be kept current with accepted concepts.

Case-specific graphics are created to present the specific evidence or injury patterns related to the case being tried. These graphics are particularly useful in cases involving multiple injuries or especially complex evidence.

Simulation graphics differ significantly from the other types of graphics in that they attempt to show exactly what happened in a given case. This type of graphic is most likely to undergo court scrutiny and challenge. It must be based on a solid foundation including, when appropriate, the concurrence of an accident reconstructionist or a biomechanical engineer, a knowledge of physics, and accurate and detailed measurements, to name a few examples of supporting information.

Graphics are developed with consideration not only of the audience, but also of the presenter, whether that individual is the attorney or the expert. The successful use of graphics in trial will still depend on the skills of the presenter, his or her comfort with the

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**The graphics must
be accurate and
consistent with
current mainstream
thought.**



The presenter must be in command of the presentation and not let the graphics dictate the way a case is presented.

Using graphics in court

Although graphic presentations have been more often used in civil cases than in criminal prosecutions, many prosecutors are now realizing the importance of using graphics to illustrate and clarify complex medical concepts relevant to child abuse charges. Many cases have resulted in acquittals or mistrials simply because the jurors could not understand the mechanism of particular injuries or the fact that some injuries are only consistent with one causal mechanism.

Courts throughout the United States have developed some fairly consistent rules for the use of computer graphic demonstrations. First, courts uniformly hold that if the graphics are merely intended to illustrate and make more clear the testimony of a qualified expert witness, the graphics should be admitted in the same way as any other chart, diagram or drawing. [See, e.g., *State v. Farner*, 2000 WL 872488, p.24 (Tenn. Crim. App. 2000) — “a computer visualization converts an expert witness’s testimony into something the jury can see.” And see *State v. Bauer*, 598 N.W.2d 352 (Minn. 1999) — pathologist’s expert opinion was illustrated by a graphic poster showing the defendant’s leg brace matched to scale with a mark on the victim’s leg — held admissible because illustrative of the expert opinion.] As long as the graphic accurately depicts and illustrates the expert’s opinion, it should be admissible in this context.

Second, when graphics are used to generally educate the trier of fact, they need only reflect the expert’s opinion and are judged based upon the scientific support for his or her opinion concerning the subject matter of the graphics. For instance, if the expert can say that the computer animation of the general mechanism thought to result in metaphyseal fractures of the legs is widely accepted in the medical field, this should be sufficient foundation for admission of the graphics for general education purposes. Most cases hold that neither the Frye test nor other local tests concerning novel scientific evidence apply in these situations. [See, e.g., *State v. Pierce*, 718 So.2d 806, 809 (Fla. Dist. Ct. App. 1997) holding that a computer animation must: (1) depict the opinion of a qualified expert; (2) be based upon facts reasonably relied upon by experts in the field; and (3) be a fair and accurate representation of what it purports to depict.]

Prosecutors report successful use of animated graphics concerning aspects of child abuse, although no appellate case law has yet been generated in these cases. Many prosecutors have obtained court rulings admitting graphics even from judges thought to be too traditional in their approach to allow such evidence. Some have reported obtaining confessions and working out plea arrangements after showing defendants and their attorneys the graphics created for the particular case. These prosecutors uniformly report that use of visuals has made the presentation of expert medical testimony easier.

When the claim is made that the computer animation reenacts exactly what happened in the particular case, the scientific reliability of the demonstration, the facts upon which it is based, and the opinion of the expert witness must be shown with some particularity. For example, no one knows exactly how many times a baby’s head is whiplashed back and forth to cause the injuries unique to the Shaken Baby Syndrome, thus an expert opinion that a particular graphic demonstration is exactly the amount of force involved in the particular case and represents exactly how many times the head was shaken probably will not meet the standards for inherent scientific reliability. On the other hand, a ballistics expert, along with a qualified forensic pathologist, may well be able to meet the high requirements of reliability in reconstructing a shooting, based on scientific principles and the evidence from the autopsy. [See *State v. Harvey*, 649 So. 2d 783, 788-789 (La. Ct. App. 1995).]

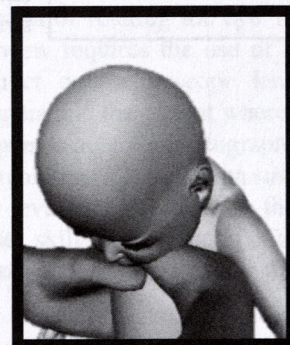
The highest requirement of showing scientific reliability is attached when data from an investigation or court proceeding is fed into a computer and the computer analyzes the data and offers a solution or answer. As many courts have said, in this latter scenario the computer itself is functioning as an expert and the proponent of the evidence must meet a high burden of scientific reliability of the computer program and the principles used to analyze the data and reach a result. This type of computer animation, called a “simulation,” has not been used in child abuse cases.

Specific graphics applications

Shaken Baby Syndrome

Graphics packages have been used for several years to teach the concepts of the Shaken Baby Syndrome. SBS is a constellation of unfamiliar and complex injury mechanisms that lend themselves to computer animation. Clear demonstration of these mechanisms is becoming more important with the appearance in the courtroom of oppos-

ing experts expounding marginal theories of injury.



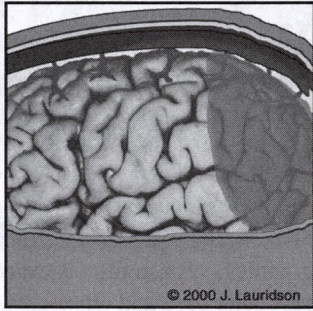
The National Center on Shaken Baby Syndrome offers a basic graphics package on SBS. It deals with the issues of the mechanics of the shaking, effects of impact, diffuse axonal injury, brain mechanical stresses, retinal hemorrhage, retro-orbital hemorrhage, subdural and subarachnoid hemorrhage, spinal cord injuries, rib fractures, acute and chronic changes on CT scans, non-accidental long bone fractures, presentation of “911” calls, and the presentation of a timeline. Recognizing the evolving

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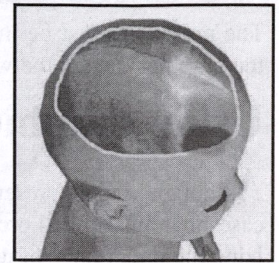
concepts in SBS and the need to maintain accurate representations, experts in various areas of SBS review these graphics to ensure their accuracy. Additionally, this basic graphics package is updated frequently.

The National Center also offers a case-specific graphics package that incorporates specific evidence such as CT/MRI scans, video statements, injury patterns, fractures, and timelines with the basic teaching graphics. Information is available on the Internet at the National Center on Shaken Baby Syndrome website: <http://www.dontshake.com/sbsmaterials.html>.



Abusive Head Injury (non-shaking)

The mechanics of skull fracture, including colorized CT/MRI scans, can often be well demonstrated with graphics. Cerebral edema and subdural or subarachnoid hemorrhages are effectively represented using computer-based graphics.



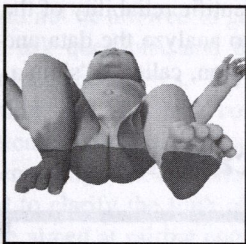
Abusive Long Bone Fractures



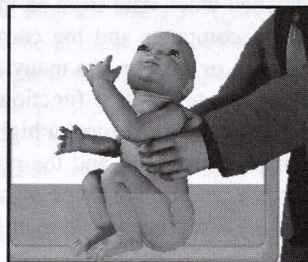
Nonaccidental long bone fractures and metaphyseal fractures can be clearly illustrated using computer graphics. Using radiographs, these graphics can be created for the details of a specific case.

Abusive Burns

Graphics can be used very effectively to illustrate splash and immersion burns. Very often actual photographs of these injuries are so disturbing that some jurors look away and thus do not comprehend the full extent and details of the injuries.



The use of specific and accurate 3-dimensional graphics allows complete illustration of burn patterns without shocking or offending jurors.



Education

As the graphics packages become more detailed and are maintained current with contemporary medical studies, their usefulness can be extended to teaching health care providers. Many primary care providers and specialists will be receptive to this stimulating approach to child abuse issues.

Resources

The National Center on Shaken Baby Syndrome, 2955 Harrison Blvd. Suite 102, Ogden, UT 84403. Telephone 888-273-0071. Web site: www.dontshake.com.



PHOTODOCUMENTATION OF THE RETINA IN SHAKEN BABY SYNDROME

Alex V. Levin, MD, FAAP, FAAO, FRCSC*
& Leslie MacKeen, BSc, OA, CRA*
Department of Ophthalmology
The Hospital for Sick Children, University of Toronto

Even under the best circumstances, photodocumentation of the pediatric retina can be quite challenging. Yet when attainable, these photographs can be invaluable for the consultative and investigative process in cases of suspected child abuse.

The ideal conditions for retinal photography require either the cooperation of a patient who can fixate at a desired target, thus keeping the eye still, or an altered state of consciousness that renders the eye stationary. This allows focusing and alignment of the camera and thereby the avoidance of photographic artifacts. Some children, as they lie in a bed or in the security of a caregiver's arms, will respond to gentle coaxing, encouragement and methods of distraction long enough to allow the required images to be captured. In other cases it may be necessary to bundle the infant, insert an eyelid speculum and manually control the movement of the eye using a probe, cotton swab, or forceps after applying topical anesthesia. This technique can be quite frightening for the observing caretaker as well as the child, and one must also take care not to injure the eye during manipulations. Alternatively, compliance can be achieved artificially either through sedation or general anesthesia, but may also occur as a result of injury-induced altered level of consciousness.

Many instruments for retinal photography also require a dilated pupil. In the child with severe central nervous system damage, the pupil may be fixed and dilated. Otherwise, pharmacologic mydriasis should be achieved (e.g. phenylephrine 2.5% + cyclopentolate 1%), except in the rare circumstance when there is concern about disrupting pupillary responsiveness for neurologic monitoring. In such cases, the neurologist may permit the dilation of only one eye at a time if the acquisition of photographs is of paramount concern. One must also be aware that image clarity can be compromised in children who are on life support, by the ointment applied to protect the cornea from exposure. Ocular lavage with normal saline is often a great aid to obtaining clearer images.

Because flexibility and mobility are important in capturing the telltale hemorrhages of shaken baby syndrome, the photographic

system should be portable and hand-held. The equipment must often move to the bedside (e.g. intensive care unit) and be used with the child in the supine position.

30° Fundus Photography

Kowa RC-2 — For many years, the film-based Kowa RC-2 hand-held retinal camera (Kowa Corporation, Tokyo, Japan) has been the standard for retinal photography of the supine pediatric patient. Although this model is no longer manufactured, it is still often used in pediatric centers. The camera provides a 30° field of view that shows the optic nerve and macula. Images peripheral to the macular area can be achieved by angling the camera or rotating the eye. A wider field of view requires the use of a hand-held indirect ophthalmoscope lens between the camera and the patient wherein the photographer is actually photographing a mirror virtual image of the retina suspended in space, thus adding another level of complexity to the technique. Patient compliance and user skill are two significant challenges with this camera. It is unlikely to be successful for the casual, infrequent user.

The Genesis: The Genesis is Kowa's current generation of portable fundus imaging. It has the same 30° angle of view as its predecessor, but it is lighter and equipped with motorized focusing and auto film advance. All generations of Kowa's portable cameras can be easily packed in a suitcase for travel between offices and locations. The camera uses standard color film but can be adapted for digital imaging. The price for the current standard system is approximately \$8,300.

The Handy NM 100 (Type D) (Nidek Co. Ltd., Japan) is a lightweight, hand-held digital retinal camera that does not require pupillary dilation beyond 4mm. Its angle of view is also a fixed 30°. The camera uses an infrared viewing light source and motorized focusing. The image is viewed on an LCD monitor as

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Regardless of the system that is chosen, photodocumentation should not replace live examination by an ophthalmologist.



opposed to the operator looking directly through a viewfinder. As the illumination required for focusing is undetectable by the patient, it provides a greater comfort and therefore increased chances of compliance. A low-intensity flash is emitted at the time of image capture. As with the Kowa series of cameras, it is possible to attain more peripheral views by rotating the eye or angling the camera; however, pharmacologic dilation is recommended for optimal results. The current price of the system is approximately \$16,000.

Innovations: Other creative people in the field have dusted off, resurrected and modified old standard tabletop retinal cameras that sit unused as backup systems in their centers. By removing them from the tabletop mount, these cameras have been affixed to microscope arms, heavy floor stands and monopods to facilitate imaging the retina of the supine infant. While more cumbersome than any other form of portable photography, the camera-to-cornea distance is greater than standard portable systems and may provide a degree of increased compliance in awake infants. Also, the modifications may provide an alternative solution to buying a new system if such a camera already exists in a facility.

Wide-Angle Photography

RetCam 120 — Designed for use in children, the RetCam imaging system (Massie Research Laboratories, Dublin, California) is a digital camera with wide-angle capability that can capture a field of up to 120°. Images are produced through a hand-held camera probe that must come into direct contact with the cornea. The camera is attached to a computer through which images are immediately displayed, captured and stored. Focusing, illumination and image capture are controlled using a footswitch while the user observes a real-time display on the system's computer screen. Although the system requires a computer monitor, hard drive, and supporting technology, the unit is supplied on a cart that can be wheeled easily to the bedside.

Best results for wide-angle imaging are achieved with a well-dilated pupil. Small pupil size may result in a central dark shadow artifact. Because the camera makes contact with the cornea, awake infants must be bundled with a lid speculum inserted and topical anaesthetic instilled. It is most suitable for unconscious or sedated children. Angling the camera can show areas of retina beyond the mid periphery. This, combined with the technique or indenting the eye, illustrates the ora serrata (edge of the retina). The Retcam requires some training but much less than other portable systems. Some centers have successfully trained nurses or other non-physicians/non-ophthalmologists to use the RetCam.

In our experience, the intensity of the red color of hemorrhages with the wide angle lenses may be decreased, particularly in darkly pigmented children in whom various degrees of haze and reduced contrast may be experienced due to the camera optics.

Nonetheless, the camera adequately documents the presence and distribution of retinal hemorrhages.

The RetCam system, including the basic wide-angle lens, costs approximately \$60,000. A high-magnification lens option costs an additional \$9,500. To adequately photograph retinal hemorrhages as often seen in the Shaken Baby Syndrome, it is ideal to have both the basic-wide angle and the high-magnification lenses.

Conclusion

Capturing a clear, focused retinal photograph in a "moving target" infant or child is always a challenge. Selecting the appropriate imaging system depends on many factors including cost, technical support, user expertise, and demand for use. There are clear advantages to the digital systems in the immediacy of viewing images, teaching opportunities and telemedical applications, but some specialists in the field have raised concern about legal challenges of image manipulation in courtroom settings.

To take the best of all designs and create the perfect pediatric camera, it would have no visible light for illumination, no need for pupillary dilation, wide angle/zoom, digital image capture, lightweight, easy portability, noncontact, no need for extensive operator training or experience, and low cost. However, regardless of the system that is chosen, photodocumentation should not replace live examination by an ophthalmologist using the indirect ophthalmoscope or postmortem gross and microscopic ocular examination. Wherever possible, premortem ophthalmology consultation should be obtained.

Resources

The Genesis

Kowa Optimed, Inc.
20001 S. Vermont Ave.
Torrance, CA 90502
Phone: (310) 327-1913, Fax: (310) 327-4177

The Handy NM 100 (Type D)

Nidek Co., Ltd.
47651 Westinghouse Drive
Fremont, CA 94539
Phone: (610) 626-6322, Toll free: (800) 223-9044, Fax: (610) 626-2749
www.nidek.com

RetCam 120

Massie Research Laboratories, Inc.
6761 Sierra Court, Suite F
Dublin, CA 94568
Phone: (925) 560-2465, (V/M) (800) 895-3308, Fax: (925) 560-2466
www.retcam.com

*Levin has no proprietary interest in any of the products mentioned in this newsletter. MacKeen has received remuneration for consultant services from the manufacturers of the RetCam.



SYNCHRONOUS EVALUATIONS OF CHILD ABUSE

J.M. Whitworth, MD

Professor of Pediatrics

University of Florida School of Medicine

Medical Director

State Child Protection Team Program, Department of Health
Children's Medical Services, State of Florida

We have been providing synchronous (real-time) evaluations of allegations of abuse from distant sites for the past three years as part of the Child Protection Team Program of the State of Florida, Department of Health, Children's Medical Services Telnet Initiative. We currently provide consultation and examination services in two hub (expert) sites and seven peripheral sites. The hubs provide 24/7 coverage for emergent and scheduled evaluations in rural areas with challenging geographical and service delivery problems. Connections between the hubs and peripheral sites are provided by either ISDN (3 bonded lines providing 384kb/sec) or T-1 lines. Peripheral sites are provided with telemedicine transmission equipment and a variety of peripherals to accomplish all standard evaluation of abuse allegations. The peripheral sites are operated by registered nurses recruited and trained specifically for the program, and the hub sites are operated by board-certified pediatricians or pediatric ARNPs recognized as experts in the evaluation of allegations of abuse.

The process for a distant examination is based on a written protocol that is designed for each peripheral site. The on-call nurse is contacted by the investigator who, in turn, contacts the hub examiner on call. The suitability of a telemedicine examination is determined, and the need for emergent local medical assessment is addressed. If a telemedicine examination is appropriate, the child and investigator travel to the peripheral site while the consultant travels to the hub site. This process usually takes 45-60 minutes. Before connection, the nurse speaks with the child, investigators, and family and explains the process, after which the connection is made. The hub examiner also speaks with the parents and the child and reassurances are given about the examination. A medical history is gathered as well as the history related to an allegation. The parents are often asked to leave the room during the history of the allegation, but the nurse remains to provide support to the child. A standard pediatric health assessment is accomplished with the nurse acting as hands of the hub examiner. This may include a colposcopic examination in sexual abuse cases. A record is created including photographs by the hub examiner. Evidence collection may be done by the nurse locally. The hub examiner speaks with the child, the family and the investigator separately after the examination. The hub examiner main-

tains all photographs and records of the event and will share records with qualified investigators.

Our experience has convinced us of several things related to the use of telemedicine technology in child abuse evaluations, including the following:

1. Patient acceptance in all age groups has been universally good. Only one patient in three years has refused to cooperate. This child refused to cooperate for any other type of examination also. Observation would lead us to believe that the telemedicine experience actually enhances patient comfort and cooperation in some cases.

2. The photographic product from telemedicine is equal to that produced in-house and is adequate for peer review and quality assurance review. The distance between hub and peripheral site is immaterial.

3. Court challenges of data have been minimal and unsuccessful.

4. Evaluation of patients in the early stages of diagnosis has reduced the number of unnecessary investigations.

5. The need to travel long distances for evaluation has diminished for families and investigators.

6. Immediate feedback for investigators is available after each examination.

While much of our data is anecdotal, we are in the process of completing studies to test various hypotheses.

It is clear to us that our concerns about patient acceptance and quality of photographic product were unfounded, and that this technology is a reliable, cost-effective method of expanding the effective range of multidisciplinary teams in a statewide system. In addition, this technology may be useful in interviewing and other assessment activities. The single most important factor in our success with this program has been the availability of sensitive, well-trained nurses who act as a support system for children and families at the peripheral site.

**The telemedicine
experience actually
enhances patient
comfort and
cooperation in
some cases.**



IMAGING ADVANCES IN THE CARE OF ABUSED CHILDREN: TECHNIQUES, TIMELINESS & EXPERTISE

Wilbur Smith, MD
Professor of Pediatric Radiology
Wayne State University

Child abuse investigation done correctly is one of the best examples of a helping, caring team; accurate, timely, and technologically excellent data help any team optimize performance. Recent advances in the imaging diagnosis of physical injury associated with child abuse include 1) enhanced imaging techniques affording improved ability to make the diagnosis, and 2) improvements in information dissemination that allow the most expert person to view the images and communicate findings to the other members of the team so that effective child protection and injury investigation are completed in a timely fashion.

Magnetic resonance imaging (MRI) is the most significant recent advance in the imaging of injury. Rapid advances in life support technology and magnet design have made MRI increasingly accessible to the critically injured (Griffiths, Wilkinson, Patel, Romanowski, Mitchell, Graham, Powell, Hodgson, & Paley, 2000). Physics advances in pulse sequences, the gradient switches, receivers, and signal detection offer a wealth of new information. This article briefly discusses two new methodologies, both applicable to brain injury; however, MRI also may be used to advantage in defining injury of other body parts.

Gradient echo imaging, made possible by engineering improvements in pulse gradient switching, offers exquisite sensitivity for detection of intracranial blood. It is likely this technique will be coupled with more conventional MRI sequences to improve both the sensitivity and specificity of detection and characterization of brain injury. As an added benefit, gradient echo techniques are also very fast, facilitating rapid screening of injured children (Yanagawa, Tsushima, Tokumaru, Un-no, Sakamoto, Okada, Nawashiro & Shima, 2000; Noguchi, Seto, Kamisaki, Tomizawa, Toyoshima & Watanabe, 2000; Kuzma & Goodman, 2000).

Diffusion weighted imaging (DWI) is a newly developed and potentially powerful tool for studying the extent and permanence of injury. DWI differentiates cytotoxic edema, caused by cell death, from free fluid, caused by swelling and potentially reversible injury. DWI offers hope for measuring the effects of treatment on children with severe head injury and assists in defining the prognosis for recovery from head injury. Use of a combination of these new sequences promises a whole new understanding of tissue recovery from trauma and vascular insult including the hypoxic ischemic injuries frequently seen in child abuse (Schaefer, Grant & Gonzalez, 2000).

Expertise is an irreplaceable commodity in diagnosing and understanding child abuse injury. Several organizations have recently expanded their interest groups making more experts available to local groups needing assistance. The Society for Pediatric Radiology recently established a committee on child abuse. The Section on Child Abuse and Neglect of the American Academy of Pediatrics is increasingly active in education and consultation. The *Child Abuse Quarterly*, a summary of recent literature on abuse and neglect, has joined the established *International Journal of Child Abuse and Neglect* to increase literature resources and expert reviews for practicing physicians. What makes these experts more valuable, however, is the rapid proliferation of Picture Archiving and Communication Systems (PACS). In theory, any digital image (CT, MRI, nuclear medicine scans) can be viewed by the most expert image interpreter almost instantly after acquisition. This enables rapid, accurate sharing of information with other team members, including investigators and law enforcement. An example of how this benefits abuse investigation occurred in Waterloo, Iowa, where the CT scan of an injured child was rapidly transported to the university so that a pediatric radiologist could review the images and provide input to investigators while they interviewed suspects. Communication by the radiologist to the investigator of the severity and timing of symptoms after injury facilitated rapid rebuttal of false histories of injury and confession of the true mechanisms of injury. Unfortunately, at present PACS units are proprietary and software driven; therefore, transmission is often limited. Considerable work is under way to create a universal standard for intercommunication and the reality of using PACS to get the best expertise in a timely fashion is not far off (Franken, Berbaum, Smith, Chang, Owens & Bergus, 1995).

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CONFERENCES FOR 2001 & 2002

CONFERENCES IN 2001

June 24-27, 2001 *American School Counselors Association*, Portland, OR. Call 800-306-4722 or visit the website at www.schoolcounselor.org.

June 27-30, 2001 *American Family Therapy Association*, Miami, FL. Call 209-994-2776, fax 202-994-2775, e-mail afta@afta.org, or visit the website at www.afta.org.

July 15-20, 2001 *National Association of School Resource Officers, "Bridging the Gap: Cops and Kids,"* Miami, FL. Call 888-316-2776 or e-mail resourcer@aol.com.

July 22-25, 2001 *7th International Family Violence Research Conference*, Portsmouth, NH. Call 603-862-0767, fax 603-862-1122, e-mail maverill@ciunix.unh.edu, or visit the website at www.unh.edu/frl.

July 29-Aug. 1, 2001 *Georgia Council on Child Abuse Annual Symposium and APSAC's Advanced Training Institutes*, Atlanta, GA. Call 404-870-6565, or visit the website at www.gcca.org.

Aug. 6-9, 2001 *25th Annual Summer Institute on Behavioral Health and Addictions*, Colorado Springs, CO. Call 800-544-9562.

Aug. 19-22, 2001 *National Organization for Victim Assistance Annual Conference*, Edmonton, Alberta, Canada. Call 202-232-6682, fax 202-462-2255, or visit the website at www.try.nova.org.

Aug. 20-23, 2001 *13th Annual Crimes Against Children Conference*, Dallas, TX. Call 214-818-4070.

Sept. 8-12, 2001 *6th International Conference on Family Violence*, San Diego, CA. Call 858-623-2777, ext.427, fax 858-646-0761, e-mail FVSAI@cspp.edu, or visit the web at www.FVSAI.org.

Oct. 5-10, 2001 *7th Joint Conference on Juvenile Services, "Responding to the Needs of the Offender, Victim, and Community,"* Pittsburgh, PA. Call 859-622-6259 or visit the website at www.njda.com.

Oct. 15-18, 2001 *17th Annual Midwest Conference on Child Sexual Abuse and Incest*, Madison, WI. Call 608-263-2400, fax 800-442-7107, e-mail midwest@dcs.wisc.edu, or visit the website at www.dcs.wisc.edu/pda.

Nov. 7-10, 2001 *Association for the Treatment of Sexual Abusers*, San Antonio, TX. Call 503-643-1023, fax 503-643-5084, e-mail atsa@atsa.com, or visit the website at www.atsa.com.

Nov. 7-10, 2001 *American Society of Criminology*, Atlanta, GA. Call 614-292-9207, fax 614-292-6767, e-mail ASC41@infinet.com, or visit the website at www.ASC41.com.

CONFERENCES IN 2002

January 21-25, 2002 *16th Annual San Diego Conference on Responding to Child Maltreatment*, San Diego, CA. Fax 858-966-8018 or e-mail dmartin@chsd.org.

May 12-15, 2002 *6th World Conference on Injury Prevention and Control (WHO)*, Montreal, Canada. E-mail trauma@coplanor.qc.ca.

May 29-June 1, 2002 *10th Annual APSAC Colloquium*, New Orleans, LA. Call 312-554-0166, e-mail APSACeduc@aol.com, or visit the website at www.apsac.org.

July 7-9, 2002 *14th International Congress on Child Abuse & Neglect*, Denver, CO. Fax 303-782-5005, e-mail 2002@kempecenter.org, or visit the website at www.kempecenter.org.

MARK YOUR CALENDAR NOW!
APSAC 10th Annual Colloquium - May 29-June 1, 2002
Sheraton New Orleans Hotel, New Orleans, LA



MESSAGE FROM THE PRESIDENT

Sandra P. Wood, MEd
APSAC President



Imagine a world without child abuse

This issue of *The APSAC Advisor* takes our attention to technology and how it can change the way we do our work as child abuse professionals. It is exciting to read how we can use computer imaging to better explain injuries to a jury, or how

telemedicine can help physicians or other professionals get expert, real-time consultation on cases, or how caseworkers can go about their work of investigation with laptops, cell phones, etc. As exciting and necessary as all these advances are, they speak primarily to a response that occurs after a child has been hurt.

The technology of the present and the technology of the future serve us well in a world with child abuse, where our focus is on building more and better shelters and advocacy centers to provide the least traumatic investigation and best treatment response for the abused child. Of course, we MUST do these things. Yet, if this is our focus, we fail to take responsibility for the fact that all the best professional intervention and treatment services in the world, with or without the aid of technology, don't come into play until after a child is hurt.

In a world with child abuse, by age 5 Jason will have survived years of physical and emotional abuse. By age 25, his son will wish he hadn't.

We watch the numbers of abused children continue to hover around a million confirmed reports a year. We watch young children die, teens get shot, and millions of children somehow survive as "near misses." We watch the cycle repeat again. All of our good works over decades have not significantly changed this situation. I started my career as a child abuse professional in 1969. Using an average of 1 million confirmed cases a year, 32 million children have been abused since I started working to help solve this problem. Even over the past three years, that's 3 million children! Where is the urgency to change this? If these millions of children had gotten cancer or were killed in plane crashes, there would be urgency to prevent the tragedy. Our President and all leaders and citizens would insist that we bring all the powers of technology and science and medicine to figure out how to PREVENT this problem.

In a few hours, Ryan will be sent back to an abusive home—unless our states and nation protect our children.



There is no national agenda for protecting children. There is no urgency. No sustained public outcry. No political will. The National Call to Action is working to change this through a new alignment of public and private organizations, professionals and citizens. Are you part of this effort?

In a world without child abuse, every child could have a childhood...could play and live without constantly having to be alert for signs that a parent or relative or boy friend is angry, on drugs, or drinking.

Who is looking at how we can use technology and all of our resources to prevent child abuse — to give children back their childhood?

Sarah will die at the hands of her mother before her next birthday—unless we break the cycle of abuse. Most of Jasmine's teenage years will be spent in prison—unless we give parents the skills they need to raise their children in safe and nurturing environments.

Prevention is the key. It starts early with programs like "Healthy Families America" that connect with parents of newborns to help them get off to a good start. And with parent support groups, and messages that tell parents, "It's OK and normal to get help with the toughest job in the world." We must teach our children violence prevention skills, including anger management, impulse control, and empathy. We must recognize the clear link between domestic violence and child abuse and help professionals in these currently separate fields work better together. Are there new ways that technology can help us reach each other and the parents and children who will be hurt if we aren't successful?

In 20 years, Carlos will be just like Daddy...and his children will suffer—unless strong partnerships build a foundation for prevention.

We must put prevention on everyone's agenda. We must learn to market our product—prevention—just as Coca-Cola or McDonald's or dot com companies market their products. How can technology help us reach our audience? How can it help us influence public opinion about the problem of abuse and the solutions?

He's either home alone, or on the streets at night. Maybe it's his parents who need adult supervision.

•CONTINUED ON THE NEXT PAGE.

every child had a childhood. A world that could convert prisons into schools, neighborhood centers, or parks. A world where day care providers and teachers could spend more time teaching and mentoring and less time struggling with "problem kids."

Imagine a world that fully used technology not only to investigate and treat abuse, but also to keep it from happening in the first place.

Imagine the best APSAC

Imagine an organization of professionals committed to preventing and treating child abuse. An organization that provides its members excellent training, best practice guidelines, and publications to keep them informed. An organization of strong state chapters that bring members together on the local level and influences practice and policy in their states. An organization with the best technology to maintain an accurate database of its members and to communicate regularly with its chapters and members. An organization with a website that is a resource for members, bringing information and research and a quick means to renew memberships or bid on a silent auction item. An organization that is well run and financially stable. An organization that is a leader in making the protection of children a priority. An organization for every professional working to prevent and treat abuse.

Imagine that we're getting there! APSAC has been working hard to meet these goals. Here's a quick summary of the organization's actions and accomplishments over the past nine months that are moving us closer to being the best APSAC:

1. The Board completed the RFP process for a strategic partner and currently is negotiating a contract to move the administrative offices of APSAC to the Center on Child Abuse at the University of Oklahoma by late summer.
2. An operations/administrative manager is currently being recruited for APSAC.
3. The member database has been reconstructed, and each state chapter has received a list of its state members. Our membership manager is working with state chapters and individuals to work out any lingering problems with the list and to begin assembling e-mail addresses for easier communication.
4. APSAC has responded to recommendations from a few state chapters about communication, membership, dues, and representation for state chapters. The state chapter and membership committee has been tasked with studying these issues and making recommendations at the June Board meeting.
5. APSAC is meeting the austerity budget that was

6. The process of paying state chapter dues allocations for FY2000 has begun. Some chapters have elected to contribute their dues allocation back to APSAC, and this is most helpful during our transition period.
7. Successful institutes were conducted at the San Diego and Huntsville conferences, and another institute is scheduled for Atlanta in July.
8. The 2001 Colloquium brochure is out, and a strong program is planned for Washington in June, including the second exciting APSAC silent auction—Have you sent in your donation yet?
9. Membership levels have been maintained at around 3,400.
10. MSBP definitions, developed by an APSAC task force, have been approved and are being prepared for publication in *Child Maltreatment*.
11. APSAC has participated in the National Call to Action Steering Committee and continues to participate in the National Child Abuse Coalition.
12. Former Board member, Randy Alexander, MD, PhD, worked with Cooper Surgical to secure sponsorship for this issue of *The APSAC Advisor*.
13. Many other past board members, other members, and state chapters have worked to support APSAC over the past months.
14. In January, the APSAC Board approved several organizational changes that should better position APSAC for the future:
 - a. Changed the fiscal year from June 1 to January 1, effective 2002.
 - b. Adjusted the term of membership accordingly. Beginning January 2002, all memberships will run January–December. Information about how this transition will be managed for members will be forthcoming.
 - c. Extended the current Board and officer terms to December 31, 2001, to coincide with the new fiscal year.
 - d. Changed the by-laws to allow for a Board of Directors of not more than 16 members. The next election of members will occur in the late fall, with at least four seats to be filled. Two will be by election and two by appointment of the president to assure adequate business expertise and diversity in the membership.

Thanks to all of you who are pushing us towards our vision for the best APSAC!

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JOURNAL HIGHLIGHTS

The purpose of *Journal Highlights* is to inform readers of current research on various aspects of child maltreatment. APSAC members are invited to contribute to *Journal Highlights* by sending a copy of current articles (preferably published within the past six months) along with a two- or three-sentence review to Ernestine C. Briggs, PhD, Duke University Medical Center, Trauma Evaluation Treatment and Research Program, Center for Child and Family Health – North Carolina, 3518 Westgate Drive, Suite 100, Durham, NC 27707 (Fax: 919 419-9353)

Sexual abuse

Study examines effects of multiple types of trauma on adult mental health

Using a national probability sample of 4,008 women (18-34 yrs. old), this study examined the associations among childhood assault (rape, aggravated assault, or both), incident characteristics, and indices of adult mental health (posttraumatic stress disorder, major depressive episode). Lifetime prevalence of traumatic events, including serious physical assault, sexual assault, natural disasters, and other aversive life events were assessed via a victimization screening instrument. The results indicated that the effects of childhood aggravated assault and rapes that caused additional physical injury were particularly deleterious. The findings also highlight the importance of assessing multiple types of trauma, as well as screening for such incident characteristics as life threat and physical injury.

Hanson, RF, BE Saunders, DG Kilpatrick, HS Resnick, JA Crouch, & R Duncan (2001). "Impact of childhood rape and aggravated assault on adult mental health." *American Journal of Orthopsychiatry*, 71(1), 108-119.

Sexual revictimization prevention program evaluated

This investigation tested a program to reduce women's risk for sexual revictimization. Sixty-six women with histories of sexual victimization as adolescents or adults were randomly assigned to a preventive intervention group or a no-treatment control group. Participants completed initial measures assessing history of sexual assault, self-efficacy, and psychological functioning, and returned approximately two months later for follow-up assessment using the same measures. Results indicate that the prevention program may be effective in reducing the incidence of sexual assault revictimization in this population. In addition, participants in the intervention group displayed significant improvement in psychological adjustment and self-reported self-efficacy.

Marx, BP, KS Calhoun, AE Wilson, & LA Meyerson (2001). "Sexual revictimization prevention: An outcome evaluation." *Journal of Consulting & Clinical Psychology*, 69(1), 25-32.

Implications of sexual violence for adolescent weight control techniques

The association between sexual violence and weight control practices among girls was assessed in this article. Survey data on dating violence, unwanted sexual contact, purging, and diet pill consumption were gathered from 2,629 girls (14-18 yrs. old) in grades 9-12. Results suggest that dating violence and unwanted sexual contact elevated the probability that girls would report practicing weight control techniques by 6-13%. Controls for family environment did not eliminate these associations. Weak impulse control did not significantly mediate these associations.

Thompson, KM, SA Wonderlich, RD Crosby, & JE Mitchell (2001). "Sexual violence and weight control techniques among adolescent girls." *International Journal of Eating Disorders*, 29(2), 166-176.

Physical abuse

Physical abuse linked to higher levels of suicidality and depressive symptomatology

This study assessed the nature and level of depressive and suicidal symptomatology in physically abused children, compared with neglected and nonabused children. Participants included 114 children 6-12 years old, of whom 41 had been physically abused, 38 neglected, and 35 neither abused nor neglected. Each child completed the Children's Depression Inventory and the Child Suicidal Potential Scales. The physically abused children manifested significantly higher levels of depressive symptomatology and suicidality than did the other two groups. The findings regarding suicidality highlight the importance of examining the risk for self-injury among physically abused children.

Finzi, R, A Ram, D Shnit, D Har-Even, S Tyano, & A Weizman. (2001). "Depressive symptoms and suicidality in physically abused children." *American Journal of Orthopsychiatry*, 71(1), 98-107.

Differential pattern of maltreatment and adolescent adjustment investigated

This study examined the relationship among child maltreatment, clinically relevant adjustment problems, and dating violence in a community sample of adolescents (aged 14-19 yrs.) from 10 high schools in Ontario. Logistic regression was used to compare

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maltreated and nonmaltreated youths across outcome domains. One-third of the school sample reported levels of maltreatment above the cutoff score on the Childhood Trauma Questionnaire. Girls with a history of maltreatment were at greater risk for emotional distress, violent and nonviolent delinquency, and carrying concealed weapons. Boys with histories of maltreatment were 2.5-3.5 times as likely to report clinical levels of depression, posttraumatic stress, and overt dissociation, as were boys without a maltreatment history. They also had a significantly greater risk of using threatening behaviors or physical abuse against their dating partners. Maltreatment is a significant risk factor for adolescent maladjustment and shows a differential pattern for male and female adolescents.

Wolfe, DA, K Scott, C Wekerle, & A Pittman. (2001). "Child maltreatment: Risk of adjustment problems and dating violence in adolescence." *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(3), 282-289.

Other issues in child maltreatment

Study explores mediators of the relationship between child maltreatment and adjustment

In this study, maltreatment was predicted to negatively affect children's academic and behavioral adjustment through the creation of deficits in academic engagement, social competencies, ego resiliency, and ego control. Teachers' comprehensive evaluations, school records, and camp counselors' ratings were obtained for 229 socioeconomically disadvantaged children (5-12 yrs. old), 146 of whom had been maltreated. Maltreated children showed less academic engagement, more social skills deficits, and lower ego resiliency than nonmaltreated comparison children. Maltreated children manifested multiple forms of academic risk and showed more externalizing and internalizing behavior problems. The effects of maltreatment on academic maladjustment were partially mediated by academic engagement; whereas, maltreatment's effects on behavior problems were mediated fully by social competencies and ego resiliency.

Shonk, SM & D Cicchetti. (2001). "Maltreatment, competency deficits, and risk for academic and behavioral maladjustment." *Developmental Psychology*, 37(1), 3-17.

Study delineates the relationship among violence, abortion, and distress

This study explored factors that should be considered by professional psychologists when treating women who have had an abortion. Analyses of responses from 2,525 women revealed that women who reported an abortion were more likely than others to report lower life satisfaction and symptoms of depression. These women were also more likely to experience rape, childhood physical and sexual abuse, and a violent partner. When history of abuse, partner characteristics, and background variables were controlled, abortion was not related to poorer mental health. The

authors conclude that these findings underscore the need to examine the effects of violence in women's lives to avoid misattributing psychological distress to abortion experiences.

Russo, NF & JE Denious (2001). "Violence in the lives of women having abortions: Implications for practice and public policy." *Professional Psychology - Research & Practice*, 32(2), 142-150.

Study finds sexual or physical abuse more common than neglect among sexual offenders

This study used administrative data to compare different types of offenders within a state-level juvenile corrections system in terms of investigated reports of childhood maltreatment. Thus, unlike prior research, it compared sexual offenders with other serious youthful offenders and identified types of maltreatment without resort to retrospective self-reports of abuse or neglect. Adolescents incarcerated for sexual offenses were compared to those incarcerated for other crimes on measures of prior child abuse and neglect, serious emotional disturbance, and involvement in child welfare and the juvenile justice system. The sample included 6,082 youth between the ages of 11-18 years entering the California Youth Authority. Sexual or physical abuse was more common than neglect among sexual offenders with fewer than three prior maltreatment reports. Sexual offenders were twice as likely to be receiving special education services for severe emotional disturbance and were usually incarcerated later than other offenders.

Jonson-Reid, M & I Way. (2001). "Adolescent sexual offenders: Incidence of childhood maltreatment, serious emotional disturbance, and prior offenses." *American Journal of Orthopsychiatry*, 71(1), 120-130.

School-based child abuse prevention program evaluated

This study investigated the impact of a school-based prevention program by surveying students at a high school in southern California where students from feeder schools were known to have had abuse prevention programs available to them. Questionnaires were administered and data were collected anonymously on 137 high school students (mean age 15.04 years) during their health class. A quasi-experimental design was utilized, comparing the 72 students who had attended one or more school-based abuse prevention programs with the 65 who stated they had not participated in a prevention program. The results suggest that students who attended prevention programs were more knowledgeable about abuse concepts and reported fewer incidents of abuse. However, the effectiveness of students' responses to abuse, even when they used strategies taught by the prevention programs, was variable. The authors discuss the relative effectiveness of these strategies with familial and nonfamilial forms of abuse.

Ko, SF & MA Cosden. (2001). "Do elementary school-based child abuse prevention programs work? A high school follow-up." *Psychology in the Schools*, 38(1), 57-66.



POLICY WATCH

Thomas L. Birch, JD
Legislative Counsel
National Child Abuse Coalition

Bush budget goes to Congress

The congressional budget process finally got off to a start on April 9, when President Bush sent to Congress his full budget proposal for 2002. According to the White House, the President's budget plan represents a 4 percent increase over last year's spending. It depends on how you look at it.

The Bush Administration figure is based on all discretionary spending, domestic as well as defense. Other estimates differ. House Republicans, intent on keeping down the appearance of increased spending, would exclude Bush's emergency reserve fund and peg the increase at a more moderate 2.5 percent. The Center on Budget and Policy Priorities excludes defense spending, figuring only domestic spending, which reduces Bush's budget increase to only 0.4 percent. House Democrats go even a step further: Looking at domestic spending without the increases Bush proposes in education and health care, the budget scores a 6.7 percent cut!

However it figures, the Administration's budget becomes the basis from which Congress makes its spending decisions in the 13 individual appropriations bills that will make their way through the legislative process over the summer and early fall of this year.

President Bush's spending plans for child welfare

For child welfare spending, the President's budget proposes increases in some child welfare programs, cuts in others, funding freezes in the majority of child welfare services, and a rearrangement of funding to support new initiatives proposed by the Bush administration.

Child Abuse Prevention and Treatment Act (CAPTA): The President would cut \$15.7 million next year from the \$33 million appropriated in 2001 for child abuse research and demonstration grants. The other CAPTA programs — basic state grants and community-based family resource and support grants — would be frozen at the 2001 spending levels.

Safe and Stable Families: The President's campaign pledge to increase funds for prevention would raise the Safe and Stable Families Program funds from \$305 million to \$505 million next year.

Early Learning Fund: First-time funds of \$20 million appropriated in 2001 for this program of support for parent education and family support services would be eliminated completely in 2002.

Other funding initiatives proposed by the President represent new directions in federal spending in child welfare.



Children of Prisoners: In addition to the \$200 million increase for Safe and Stable Families, the President is asking Congress to add another \$67 million for a new program to support competitive grants to faith- and community-based groups to mentor the children of prisoners.

Compassion Capital Fund: The President's budget includes \$89 million for a new Compassion Capital Fund "to support the creation of public/private partnerships to provide start-up capital and operating funds" in such areas as mentoring children of prisoners (in addition to the \$67 million described above), after-school child care, and elder care.

After-School Programs: The 2002 budget includes a proposal to set aside \$400 million from the Child Care and Development Block Grant for after-school certificates to low-income parents for child care. With a total of \$200 million added to the child care funding, the after-school proposal means a cut in the basic program of support for child care.

Maternity Group Homes: New funds totaling \$33 million would go to maternity group homes for young pregnant women and young mothers and their children unable to live with their own families because of abuse, neglect, or other circumstances.

Promoting Responsible Fatherhood: The budget includes \$64 million in new funding to establish a new discretionary grant program "for community and faith-based organizations that promote responsible fatherhood, successful parenting and stronger marriages."

Office of Faith-Based and Community Programs: The HHS Center for Faith-Based and Community Programs, established on March 20, 2001, would be funded at \$3 million to "coordinate departmental efforts to eliminate barriers to the participation of faith-based and community organizations in providing social services."

The bulk of child welfare spending continues to subsidize the cost of placements—either in foster care or adoptive homes—for children who have been abused or neglected so seriously they are not safe at home. While foster care funding in 2002 represents a decrease in spending for the first time, the budget estimates that the money will serve an average of 290,700 children in foster care per month in 2002. The increased spending for adoption assistance will subsidize placements for an average of 301,600 children per month.

Finally, the Title XX Social Services Block Grant continues to suffer funding cuts. President Bush proposes a decrease of \$25 million from the \$1.725 billion appropriated in 2001 for this funding that supports a range of child welfare, child protection and family support services.

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Dodd Amendment restores CAPTA funds in Senate budget

On Thursday, April 5, during Senate consideration of the Congressional budget resolution for fiscal 2002, Sen. Christopher Dodd (D-CT) was successful in offering an amendment to restore in the budget the \$15.7 million President Bush is asking Congress to eliminate from spending on child abuse research and demonstration grants. The Congressional budget resolution is a guide to spending decisions in appropriations legislation, which will have the final say later this year on funding levels for this and all other federal programs in 2002.

The \$15 million by which Congress increased the CAPTA money for 2001, and which President Bush wants to eliminate, is earmarked for special projects in the Congressional districts and states of various legislators. The Bush cut would represent almost a 50 percent decrease in the funds, which this year total \$33.7 million for CAPTA discretionary spending.

Dodd's successful amendment provides encouragement to efforts to maintain CAPTA's discretionary spending at least at the level of \$33.7 million in 2002. Without the earmarks, HHS would be free to target funding to needed innovative programs and long-neglected research projects.

Dodd's amendment, which passed without objection, also would protect from cuts the \$20 million provided this year for the first time for the early learning fund to improve quality child care and education for preschoolers, \$200 million from the \$2 billion appropriated this year for the Child Care Development Block Grant, and \$35 million for pediatric training in children's hospitals.

Department of Justice budget proposals for child abuse

The President's proposed spending for the Department of Justice (DOJ) overall took a reduction. Funds for juvenile justice programs, which support many of the delinquency prevention and child abuse prevention and intervention programs in the Department of Justice, are hit with a 23 percent cut in the Bush budget. However, other DOJ programs specifically addressing child abuse and neglect are targeted for spending increases:

The **Court Appointed Special Advocate (CASA) Program** would grow from \$11.5 million in 2001 to \$11.975 million in 2002.

Child Abuse Training for Judicial Personnel,

authorized under the 1990 Victims of Child Abuse Act, would be increased from \$2 million to \$2.296 million in 2002.

The **Safe Havens for Children Pilot Program**, authorized by Congress last year to provide supervised visitation and safe visitation exchange of children between parents in situations involving domestic violence, child abuse, sexual assault, or stalking, would be funded for the first time at \$15 million.

Funds for **Rural Domestic Violence and Child Abuse Enforcement Assistance Grants**, set at \$25 million in 2001, would increase to \$39.945 million in 2002.

Supreme Court denies drug test of pregnant women

On March 21, 2001, The U.S. Supreme Court decided 6-3 in the case of *Ferguson v. Charleston* that a hospital's nonconsensual drug tests performed without a warrant for criminal investigatory purposes on pregnant women suspected of using cocaine amounted to unconstitutional searches.

The Charleston, South Carolina, public hospital began performing the drug tests in 1988 because of concern about an apparent increase in the use of cocaine by patients receiving prenatal treatment. The hospital staff offered to cooperate with the city in prosecuting mothers whose children tested positive for drugs at birth by identifying and testing pregnant patients suspected of drug use, with procedures for prosecuting for drug offenses and/or child neglect depending on the stage of the defendant's pregnancy. The suit challenging the policy's validity was filed by obstetrical patients arrested after testing positive for cocaine.

In the decision delivered by Justice Stevens, with Justices O'Connor, Souter, Ginsburg, and Breyer concurring, the court held that the interest in using the threat of criminal sanctions to deter pregnant women from using cocaine cannot justify a departure from the general rule that an official nonconsensual search is unconstitutional if not authorized by a valid warrant. The court explained that, "While state hospital employees, like other citizens, may have a duty to provide the police with evidence of criminal conduct that they inadvertently acquire in the course of routine treatment, when they undertake to obtain such evidence from their patients for the specific purpose of incriminating those patients, they have a special obligation to make sure that the patients are fully informed about their constitutional rights ..."

Dissenting from the court's decision were Justices Scalia and Thomas and Chief Justice Rehnquist.

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Editor in Chief

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