

TELEMEDICINE & DISTANCE LEARNING IN THE CHILD ABUSE INTERVENTION FIELD

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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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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:

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