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THE USE OF TELEMEDICINE IN CHILD SEXUAL ABUSE EVALUATIONS

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ABSTRACT

Objective: To describe the advantages, disadvantages and current status of child abuse consultations conducted through telemedicine networks.
Method: The results of a telephone survey of seven statewide telemedicine networks are reported and discussed with respect to goals, funding, technical support and expertise, infrastructure, and extent of use. Quality assurance and liability issues concerning telemedicine child abuse consultations are also reviewed.
Results: The goals of telemedicine networks in child abuse are to provide (1) expertise to less experienced clinicians primarily in rural areas; (2) a method for peer review and quality assurance to build consensus of opinions particularly in sexual abuse cases; and (3) support for professionals involved in an emotionally burdensome area of pediatrics. Problems encountered by existing networks include: (1) funding for equipment and reimbursement for consultation; (2) consistent technical support; (3) clinician lack of technical expertise, knowledge, or motivation; and (4) lack of network infrastructure. Legal considerations include licensure exemptions for consulting across state lines, potential for malpractice, patient confidentiality and security of images forwarded over modem lines, and liability of the equipment, consulting site, and the consultant in criminal proceedings.
Conclusions: Telemedicine consultations offer a unique opportunity to raise the standard of care in child abuse evaluations, but success depends on clinician motivation, appropriate infrastructure, and ongoing funding and technical support. © 2000 Elsevier Science Ltd.

Key Words—Telemedicine, Sexual abuse, Child abuse, Networks.

INTRODUCTION

RECENT ADVANCES IN the development of medical applications for long-distance communications technologies have led to the appearance of a broad array of consultative and diagnostic

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capabilities known collectively as "telemedicine." An early commentator on telemedicine defined the field as "situations in which health care professionals use telecommunication channels to communicate with each other or with their patients, with the goal of improving the delivery of health care services" (Shinn, 1975).

Psychiatric consultations by closed-circuit television date back to the 1950s (Brown, 1998), but the practical application of modern Internet-related technology to telemedicine began in September 1996 between prisons in Pennsylvania ("satellites") and medical centers in Kentucky (consultant "hubs") (McDonald et al., 1999). The specialties consulted through telemedicine were primarily psychiatry, orthopedics, and dermatology. This 15-month project demonstrated that a telemedicine system could be implemented quickly, reduce required trips to specialist facilities, recover equipment costs within 2 years, and improve quality of care through increased availability of specialists. Today, telemedicine systems are employed not only for consultations and clinical care delivery, but also for education and information management and dissemination (Ecken, Harbick, & Pease, 1997).

The use of telemedicine in child sexual abuse developed from two rather different needs: (1) the need for caregivers in smaller communities, with varying expertise, to review findings with specialists; and (2) the desire of experts in the field to more easily share case data for peer review and consensus-building in a rapidly changing field.

This article will discuss the current status of telemedicine in forensic child sexual abuse practice, the problems encountered by existing child sexual abuse telemedicine networks, and challenges likely to be encountered in the future.

THE CASE FOR TELEMEDICINE IN CHILD SEXUAL ABUSE EXAMINATION

Forensic child sexual abuse medicine has evolved dramatically over the past two decades. The first series of articles on forensic findings in child sexual abuse presented empirical estimates of clinical parameters, such as hymenal opening sizes, that could be used as indicators of sexual abuse trauma. Some writers suggested that more than half of examinations of children presenting with a history of sexual abuse would be abnormal (Cantwell, 1983; Hobbs & Wynne, 1987; White & Ingram, 1989).

The adoption of the colposcope with its high magnification and photographic capabilities for child sexual abuse examinations allowed a new level of sophistication in research and peer review activities (Teixeira, 1981). During the late 1980s and early 1990s, a series of articles described many normal anatomical variations of the genitals and anus (Berenson, 1993; Berenson, Heger, & Andrews, 1991; Kellogg & Parra, 1991; McCann, Voris, Simon, & Wells, 1989; McCann, Wells, Simon, & Voris, 1990). As a direct consequence, by the late 1990s the proportion of examinations with demonstrable evidence of trauma in published series of child sexual abuse victims had fallen to between 15 and 35% (Adams, Harper, Knudson, & Revilla, 1994; Emans, Woods, Allred, & Grace, 1994; Kellogg, Parra, & Menard, 1998).

As the field has matured, strong professional organizations have developed and specialized forensic teams have formed in major cities. Physicians who rate themselves as skilled in sexual abuse examination are now usually members of specialty organizations and practice in university or hospital-based clinics in urban areas (Paradise et al., 1997). However, this ongoing process of specialization and centralization has presented a dilemma: How can children seen for sexual abuse in areas outside major cities receive reliable, humane forensic examinations? During the 1990s, several states and regions turned to telemedicine technology to attempt to resolve this problem.

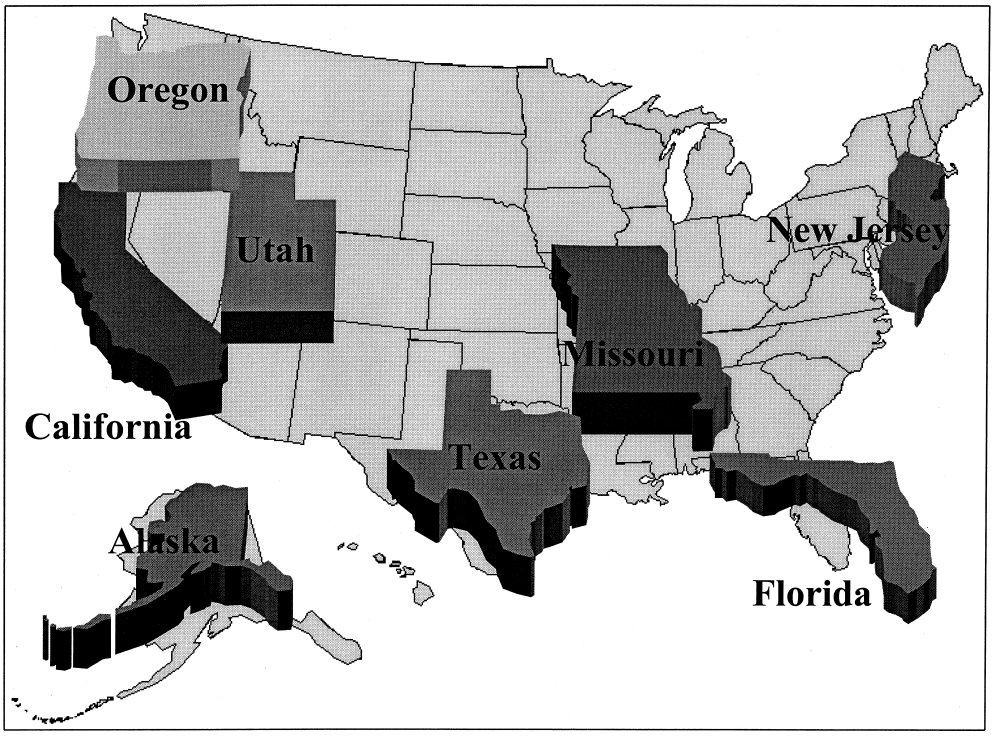


Figure 1. State telemedicine networks for child sexual abuse.

STATEWIDE CHILD SEXUAL ABUSE TELEMEDICINE NETWORKS IN THE UNITED STATES: CURRENT STATUS

Telemedicine systems of "hub" consultants and consulting "satellites" for child sexual abuse have been piloted in some states. In March 1999, one of the authors (Lamb) conducted an informal survey of seven active statewide networks (Figure 1). The list was compiled after consultation with a manufacturer of image capture/transmission software marketed to child sexual abuse telemedicine networks (C. Apel, personal communication, 1998), and is believed by the authors to include all such networks active at that time. An eighth statewide network (New Jersey) was also contacted but was not included in the survey results after network representatives indicated that peer review was handled at in-person meetings, and they had no current plans to transmit images. As with the implementation of any new technology, significant problems have been encountered by these pioneering telemedicine networks. Table 1 lists funding, infrastructure, and other problems reported by the existing organizations.

Virtually all networks have reported similar systemic problems:

Funding. Most networks reported that the telemedicine projects were initially funded by grants that provided for equipment and software purchase. Ongoing funds for training, quality assurance, technical support, maintenance, repair of equipment, and support for the hub sites providing consultation assistance remain serious issues in many states. Florida, Missouri, Oregon, and New Jersey have line-item state funding to maintain their state networks. In all cases, funding depends upon government, foundation, and institutional grants that must be renewed, rather than fee-for-service reimbursement.

Table 1. Overview of Statewide Child Sexual Abuse Telemedicine Networks

	Number of Sites	Funding	Infrastructure	Hubs	Problems	Future Plan
Alaska	5	State, federal, and private grants	Independently trained satellites; peer review	2; consult out-of-state	Technical support Equipment problems Needs hubs	Expand network through regional advocacy centers
California	2	State, federal, and private grants Institution support	Independently trained hubs; peer review	2; provide consults for out-of-state	Work in progress	Establish state-wide network
Florida	25	State, federal, private, and in-kind grants Line-item state support	Hub-trained satellites Hub consults on-site	1; consult in-state only	Technical support	Real-time consultations
Missouri	15	Line-item state support State, federal grants	Independently trained satellites and hub-trained satellites	1; consult in-state only	Technical support Equipment problems	Technical training Formal hub-satellite agreements
Oregon	12	State grant Private grants	Independently trained satellites	3; consult in-state only	Technical support Equipment Problems Funding	Data collection
Texas	12	State grant	Hub-trained satellites; peer review	2; consult in-state only	Technical support Equipment problems	Expand network Formalize consults, protocols
Utah	4	State, federal, and private grants	Independently trained satellites	1; consult in-state	Technical support Equipment problems	Formalize protocols

To date, 13 states have legislated Medicaid, insurance and third party payor reimbursement for telemedicine consultations, but most states still reimburse only for live interactive video encounters (Grigsby & Sanders, 1998). After-the-fact ("store-and-forward") reviews of images and other data "the technology most commonly used by child sexual abuse telemedicine networks" are generally not sources of billable income.

Distances between sites. All the hub consultants are either affiliated with medical schools or with large referral hospitals. The number and convenience of location of these centers vary widely among and even within networks. In Texas and other western states, the distance between some hubs and satellites exceeds 500 miles (900 km). Since in a criminal trial the prosecutor and defense attorney may subpoena anyone with knowledge related to the crime, and since testimony by phone or video is generally not permitted, the hub consultant may be at risk for spending substantial time in court at distant sites. Civil proceedings are less problematic, since testimony by phone or video deposition is often permissible, and some states impose a distance limit (e.g., 100 miles or 160 km) for subpoenas of witnesses.

Underutilization. Most networks reported that they do not fully utilize the telemedicine equipment and consultation capabilities. Low utilization rates are attributable to equipment installation and utilization difficulties, lack of technical support, variability of examiner skills, and lack of infrastructure organization. Satellite sites are often provided equipment or software prior to the establishment of functioning network capability, clinical guidelines, or even contractual relationships to hub sites. These issues are discussed in more detail below.

Equipment difficulties were reported by all seven networks. Largely attributable to the clinicians' inexperience with technology, networks reported difficulties choosing from among the types of systems available for image capture and transmission, understanding the specifics of the required equipment, and in achieving successful setup of the systems.

Imagery equipment options include 35 mm, digital, and video digital cameras, all of which may either be freestanding or attached to colposcopes. Images must either be developed on film and then scanned into the computer, captured on magnetic (video) media and transferred to the computer, or transmitted electronically to the computer during the examination. The software program captures the image in a patient file, where it can be annotated and transmitted. Image quality may be affected at several points during this process:

- There must be adequate lighting and focusing at the moment during the examination when the camera captures the image.
- Transmission to the computer and reproduction as a digital file by the software program are points where image detail, resolution, and color accuracy can deteriorate.
- Compression of the image file for transmission to the remote site and reconstruction of the image by that site's software and image output device (monitor or printer) are other areas of potential image degradation (McMenamin, 1998).

Another factor critical to a network's success is the securing of sufficient bandwidth capacity (i.e., the number of data bits per second that can be transmitted over a network). Bandwidth capacity varies widely—from "POTS," or "plain old telephone service" transmitting at 34 bits per second to ISDN lines (64–128 bps) and T1 lines (1500 bps). Broad bandwidth capacity is expensive, particularly in rural areas (Grigsby & Sanders, 1998), but the use of lower-capacity lines greatly increases the time required to send and receive images (Silberstein & Hornstein, 1997). As shown in Table 1, three states (Alaska, Missouri, and Oregon) cite limited local carrier capacity as a barrier to optimal utilization.

Technical support. Although new telemedicine groups tend to focus their initial efforts on purchasing equipment, securing adequate technical support is often an even more difficult obstacle.

According to the US Department of Commerce's 1997 Telemedicine Report to Congress, "One of the most frequent questions posed to federal agencies is: 'Where can I get some objective advice on setting up my system?'" (Kumekawa, Puskin, & Morris, 1997). Many sites had purchased the necessary components for telemedicine but had not yet set up the equipment or installed the software due to the lack of technical experience and time. Those sites that were transmission-capable had a technical support person set up their system and provide ongoing training and operational support.

Clinician skills. Several states identified a high variability among examiners' clinical skill levels and technical expertise as an impedance to optimal network utilization. The examiner's clinical acumen is of paramount importance; if the examiner fails to use adequate examination techniques, with the result that structures are incompletely visualized or distorted, then even the most sophisticated technologies will not produce images that are adequate for consultation. The examiner must also be technically adept with the equipment and adjustments required to maintain image quality and avoid the equipment difficulties noted above. Lastly—and perhaps most critically—the optimal utilization of a telemedicine network depends on the examiner's willingness to submit cases for ongoing review and to accept and document the consultant's findings.

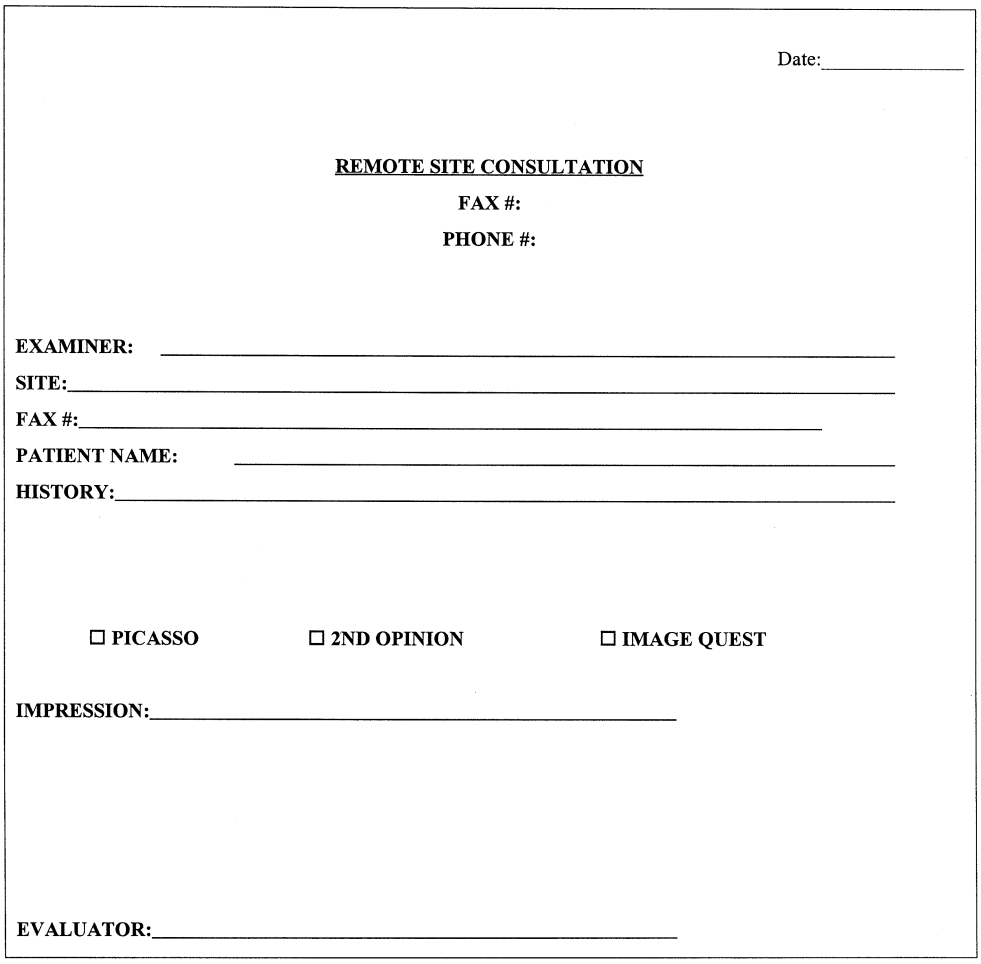
Organizational issues. All states experienced problems structuring and organizing their networks. These problems included establishing appropriate relationships between hubs and satellites (to be discussed in detail below).

As noted above, most clinicians involved in organizing such networks initially lack understanding of the complexity of the technology. They typically receive one-time grants for equipment but do not secure funding for training and maintenance. Paradoxically, if technology specialists assume direction of the networks in an effort to avoid the above pitfalls, the systems often become too complex for use in clinical situations. These organizational problems have occurred whenever medical specialties have first attempted to apply telemedicine technologies to clinical situations. For example, Brown (1998) describes the experience with pioneer psychiatric systems as follows:

> Early telepsychiatric systems were shut down for various reasons; a lack of system management has been cited as a primary reason. Lines of authority and responsibility were often unclear or absent. Many of the early systems were funded with government grants; the programs ceased when the grants ended. Reimbursement issues have plagued telepsychiatric systems up through the present. Equipment, maintenance, and transmission costs often are not covered by existing reimbursement plans and thus translate into additional provider costs when compared with costs of face-to-face interactions.

Yellowlees and Kennedy (1997) have provided guidelines for "how not to develop telemedicine systems." Centralized bureaucracy and decision-making are less likely to succeed than clinician-consumer development and decision-making. Networks organized by geographic areas of need work less well than networks organized by experienced clinician participants. Grandiose technology and inconsistent servicing of equipment are less successful than simplified user-friendly systems supported by consistent servicing.

Conversely, successful telemedicine programs are characterized by pragmatic selection of applications and sites, "ownership" by the clinician users, user-friendly technology, user-oriented (rather than centralized) management and technical support, ongoing training and support, clinically appropriate evaluation techniques, and sharing of information and technology (Yellowlees, 1997).



Date:_____

REMOTE SITE CONSULTATION

FAX #:

PHONE #:

EXAMINER: _____

SITE:_____

FAX #:_____

PATIENT NAME: _____

HISTORY:_____

☐ **PICASSO** ☐ **2ND OPINION** ☐ **IMAGE QUEST**

IMPRESSION:_____

EVALUATOR:_____

Figure 2. Sample documentation form for telemedicine consultations.

QUALITY ASSURANCE ISSUES IN THE USE OF TELEMEDICINE FOR CHILD SEXUAL ABUSE EXAMINATIONS

Child sexual abuse telemedicine systems must ultimately generate standards, protocols, and clinical practice guidelines, as do all the other specialized telemedicine networks (Kumekawa et al., 1997). Following is a list of issues that must be addressed by the telemedicine networks:

- The hub must determine the number of satellites it can support, which in turn depends on the type of consultations offered.
- The hub may review all images taken by the satellite, or may consult on an as-needed basis.
- Images can be shared between only the hub and satellite, or among all sites (the latter typically for educational or peer review purposes).
- Both hub and satellite should document any telemedicine consultation and comments/opinions on images sent or reviewed. Figure 2 is a sample documentation form.
- The hub and satellite should establish a clearly understood protocol for clinical responsibility, including documentation of case consultations. In some states, there is a memorandum of

understanding between hubs and satellites. In Florida, the satellites are responsible for placing a copy of the hub's documented opinion with their patient's records. Satellites and hubs may also agree to enter demographic and other descriptive data on each case for the purpose of tracking information and acquiring financial support for the network.

- The telemedicine system should establish clear expectations regarding credentialing, peer review and continuing education. Peer review meetings of examiners throughout a state serve to maintain commitment, especially among the satellite clinicians who may feel that their struggles are unique. Florida, with the highest number of actively participating sites, has regularly scheduled site visits and chart reviews as a primary means of quality assurance.
- Satellites not meeting the established criteria for documentation, credentialing, and peer review should be reviewed prior to renewal of certification and funding.

LIABILITY AND OTHER LEGAL ISSUES

Several areas of legal liability exist for telemedicine systems and practitioners. Most of these areas remain potential risks, not yet established in case law (Granade, 1997). Liability issues for telemedicine practitioners include:

The physician-patient relationship. In the United States, in order to prevail in a medical malpractice lawsuit, a plaintiff must prove three contentions: (1) a patient-physician relationship existed; (2) the standard of care was breached by the physician; and (3) the breach caused the injury. Thus, in any liability claim involving telemedicine, the court must first determine whether a patient-physician relationship existed between the hub consultant and the patient at the satellite site. For such a relationship to exist, there must be a real or implied "contract" to provide services. Granade (1997) and Richards and Rathbun (1999) suggest that informal consultations among physicians in which patient identities and extensive case details are not revealed, and that are rendered without charge, will probably not constitute patient-physician relationships in most courts. These situations are contrasted with telemedicine consultations in psychiatry, for example, which are conducted through "real-time" video, are arranged through a formal consultation request, and are reimbursed services (McDonald et al., 1999); Such interactions will constitute patient-physician relationships in most courts (Granade, 1997).

Currently, most child sexual abuse telemedicine consultations consist of genital images captured during examinations at satellite sites, then "stored and forwarded" to hubs at a later time. As noted above, these consultations are generally not reimbursed by third-party payors. Nonetheless, these images represent a medical record, the consultant opinions may have critical legal, diagnostic, and treatment implications, and many interactions are initiated by a formal request for consultation by the satellite. Clinicians must therefore assume that patient-physician relationships exist in most telemedicine consultations for sexual abuse, as with most other telemedicine consultations (Shotwell, 1996). Richards and Rathbun (1999) point out the potential importance of the expertise of the practitioner at the satellite site in determining telemedicine liability. If the satellite practitioner is a physician, then that physician will have primary responsibility for the patient's care and the court is more likely to find that the telemedicine practitioner's duty is limited. Conversely, if the patient's local contact is not a physician, then the court is more likely to find that the local practitioner has become the borrowed servant of the telemedicine practitioner and *that the telemedicine practitioner is responsible for all aspects of the patient's care* (italics added for emphasis).

The hub physician may be susceptible to a claim of abandonment of a patient if adequate medical care is not provided at the satellite after the telemedicine consultation concludes. The hub should establish a safety net checklist to ensure that a patient will continue to have access to care. Again, the hub is probably more susceptible to such claims when the satellite practitioner is a nonphysician (Granade, 1997).

Informed consent. A related area of potential liability; the patient or patient's guardian must clearly understand and consent to the involvement of the hub consultant. Failure to obtain informed consent for the telemedicine consultant will probably constitute negligence in most United States jurisdictions (Lott, 1996). Thus, the patient or parent must consent to the release of images and information through telemedicine. In child abuse evaluations, parents typically sign a medical release of information to law enforcement and child protective services. The satellite site should add an additional sentence authorizing release of medical information to a medical consultant via telemedicine in cases to assist in diagnosis and treatment. The consent form should describe the telemedicine arrangement as well as the purpose, benefits and possible consequences, including the potential for unauthorized access to computer files.

Patient confidentiality and data security. As with any medical record, images and information stored and transmitted via computer must be secure and confidential. A telemedicine arrangement complicates privacy and confidentiality of patient records. McMenamin (1998) describes four types of confidentiality problems likely to be encountered in telemedicine practice:

1. Improper disclosure—such as leaving data visible or not password-protected on a computer screen;
2. Unauthorized access, e.g., by hackers;
3. Identification of individual patients in aggregated data—that is, even if a name is removed, patient identity might be inferred by looking at ZIP code, age, and so forth on a database; and
4. Data integrity and authenticity—avoiding mismatched, altered, forged, or deleted data.

Security in multi-user systems like telemedicine networks may indeed be difficult to achieve. At either the satellite or the hub, a nurse or technical assistant may enter and manage the data and images on sexual abuse cases. Thus, a number of individuals outside the clinician's control may access this information, raising the possibility of accidental or deliberate alteration of records. Networks should employ accepted security measures including the use of passwords, encryption, and software and hardware that prevent information from reaching sources outside the network.

The Health Insurance Portability and Accountability Act of 1996 requires any health care provider who transmits health information in electronic form to maintain reasonable and appropriate safeguards to ensure the integrity and confidentiality of information (McMenamin, 1998). Although the Act stipulates that guidelines were to have been published by February, 1998, they have not been finalized as of late 1999.

Interstate licensure and enforcement issues. Although this discussion has concentrated on intrastate telemedicine networks, there are some telemedicine practitioners in the field of child sexual abuse who have offered interstate consultations. The variations among the states in the regulatory and licensure requirements for interstate consultations impose severe difficulties for clinicians engaged in telemedicine across state lines (Guttman-McCabe, 1997; Kumekawa et al., 1997). Between 1994 and 1997, partly in response to the increased utilization of telemedicine, at least 11 states passed new, more restrictive guidelines that severely restrict interstate consultations without license reciprocity, and that narrow the previously-established exceptions for emergencies and educational purposes (Center for Telemedicine Law, 1997). One federal group, the Joint Working Group in Telemedicine, coordinates federal telemedicine programs and is evaluating a national system of licensure for physicians (Kumekawa et al., 1997).

Standard of care issues. As noted above, the second requirement for a medical malpractice proceeding concerns whether the physician breached the standard of care. Since expertise and knowledge vary over a considerable range in child sexual abuse, the potential for discrepancies in the standards of care between satellites and hubs is significant. Paradise and colleagues (1997) have shown that physicians who are skilled in child sexual abuse examination are more likely to classify

non-definitive findings as "normal," when compared to less experienced examiners. This observation has clear implications for establishing the standard of care in child sexual abuse cases. When a child makes a clear disclosure of abuse, management of the case should be minimally affected by differences in interpretation of examination findings. However, if a child has not made a clear disclosure and suspicions of abuse are based on physical examination findings alone, then the standard of care should be to consult with a recognized expert.

Concern for breaching the standard of care is more likely to affect the satellite that has the access and capability of consulting an expert, but does not choose to do so. This concern has already been noted in legal treatises (Grigsby & Sanders, 1998; Millman & Edelstein, 1997) regarding well-established surgical telemedicine interactions among inexperienced rural sites and experienced urban sites. Hub consultants are generally covered through their malpractice insurance as long as their telemedicine activities fall within their usual duties and responsibilities. However, hubs may be at risk for liability if they do not upgrade their systems when their technologies become outdated (Shotwell, 1996).

A related issue is the potential liability faced by a practitioner (potentially either the hub or the satellite practitioner) for harm sustained by a patient (e.g., misinterpretation of data due to loss or degradation of images) through equipment failure or malfunction, the practitioner's lack of knowledge or skill in using the equipment, or failure to use reasonable care and diligence while operating the equipment (Granade, 1997; Grigsby & Sanders, 1998).

Product Liability and Liability of Computer Consultants

A consultant and satellite depend on the accuracy and quality of the image when rendering an opinion (McMenamin, 1997). If image quality or color is altered during transfer to the computer or during transmission, then product vendors may also be liable if such alteration results in an erroneous conclusion by the consultant. Under such circumstances, product vendors could be named in a malpractice suit. Similarly, in at least one case, a computer consultant has been found guilty of professional malpractice by making a "wrong" system decision (Lott, 1996).

CONCLUSION

Modern telemedicine technology offers an exciting opportunity to raise the standard of care in child sexual abuse evaluations. Timely support can be provided to clinicians who are not yet experienced in this field, and clinicians of all levels of expertise can share challenging cases for the purposes of peer review and continuing education. Most importantly, an experienced consultant, via telemedicine, can not only assist in prosecution but can also spare some families the trauma of investigation.

However, efforts to apply telemedicine in this field have been fraught with challenges. The promise of a new technology has not been matched by the human factors necessary for successful implementation. Seven statewide telemedicine networks all described problems with funding, equipment, technical support, and organization.

All seven networks identified the same five objectives for future planning in order to address these problem areas:

- enhanced clinical and technical training for network providers and support staff;
- improved technical support and maintenance;
- improved infrastructure (e.g., imaging devices and bandwidth);
- development of more formal network management structures; and
- development of formal agreements between hubs and satellites, including more specific delineation of the responsibilities of both, and the rules governing network activities.

The sustained success of telemedicine depends on the participation of responsible, motivated

clinicians supported by appropriate compensation. Funding could come from increased third-party-payor compensation for telemedicine consultant evaluations (via both real-time or store-and-forward technologies). Alternatively, network support could come from a state agency such as the Office of the Attorney General, Crime Victims Compensation Fund, or Child Protective Services.

Telemedicine is not without responsibility and liability. Any participating site must be responsible for collecting and securing patient data, utilizing adequate examination skills to visualize and photograph structures, obtaining patient consent, documenting the telemedicine consultation, and complying with its state's laws regarding interstate consultations (if applicable). The consultant must also be accessible to the satellites, document all consultations, be available for testimony in criminal trials involving cases shared through telemedicine, and bill for services when appropriate.

Does telemedicine help abused children? Telemedicine provides the potential to give all children, regardless of whether they reside in our largest cities or our smallest towns, the benefit of the most recent advances in forensic medicine. The primary costs of telemedicine systems are clinician time and money. The benefits include enhanced professional support, more accurate investigative information, and enhanced credibility of medical opinions in child abuse cases. Telemedicine provides the potential to give all abused children and their families the best of medical decisions and opinions available so the caregiver's energy and efforts can be focused on the more important goal of healing the child.

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RÉSUMÉ

Objectif: Décrire les avantages, les désavantages et le statut actuel des consultations sur les mauvais traitements lorsque celles-ci sont données via des réseaux de télémédecine.
Méthode: L'article rapporte les résultats de sondages protant sur des réseaux de télémédecine dans sept états, et discute des buts de ces réseaux, leur financement, l'appui technique, l'expertise, l'infrastructure et l'étendue de l'usage qu'on en fait. On considre aussi le contrôle de la qualité des consultations et les questions touchant la responsabilité légale.
Résultats: Les réseaux de télémédecine qui offrent des services concernant les mauvais traitements ont comme but de fournir (1) une source d'expertise aux cliniciens moins expérimentés, surtout ceux qui pratiquent en milieux raraux; (2) un moyen d'obtenir une consultation de la part de ses paires et aussi un contôle sur la qualité des services afin de réaliser un consensus sur les dispositions à prendre, surtout dans le cas des abus sexuels; et (3) un appui aux intervenants qui oeuvrent dans un domaine de la pédiatrie qui est particulièrement exigeant au point de vue émotionnel. Les difficultés éprouvées sont les suivantes: (1) le financement de l'équipement et le remboursement pour les consultations; (2) un appui technique assuré; (3) le manque d'expertise, de connaissances et de motivation chez les cliniciens; et (4) le manque d'infrastructure pour les réseaux. Parmi les questions légales à considérer, il y a les exemptions pour ceux qui doivent pratiquer hors de l'état où ils sont licenciés, le risque de faute professionnelle, la confidentialité pour le patient et la sécurité des reseignements en ondes, et les responsabilités légales vis-à-vis de l'éuipement, du site des consultations et du consultant lorsqu'il s'agit d'enquêtes criminelles.
Conclusions: Les consultation via la télémédecine offrent une occasion unique d'améliorer la qualité des évaluations, cependant leur succès dépendra de la motivation du clinicien, de l'infrastructure appropriée, financement régulier et de l'appui technique.

RESUMEN

Objetivo: Describir las ventajas, desventajas y el estado actual de las consultas de maltrato infantil llevadas a cabo a través de las redes de telemedicina.
Método: Se realizó una encuesta telefónica de siete redes de telemedicina estatales. Se presentan y discuten los resultados con respecto a las metas, financiación, apoyo técnico y de expertos, infraestructura y utilización. Se revisan también cuestiones de garantía y fiabilidad de la calidad relacionadas con las consultas de maltrato infantil realizadas a través de este sistema de telemedicina.
Resultados: Los objetivos de las redes de telemedicina en maltrato infantil son el proporcionar (1) asesoramiento a los clínicos menos experimentados, especialmente de las áreas rurales, (2) un método de revisión entre iguales y de garantía de calidad para crear un consenso de opinión, particularmente en los casos de abuso sexual, y (3) apoyo a los profesionales implicados en el ámbito, costoso emocionalmente, de la pediatría. Los problemas observados en las redes existentes incluyen: (1) falta de financiación para equipamiento y para el pago de las consultas, (2) falta de apoyo técnico consistente, (3) ausencia de motivación, conocimiento y experiencia técnica, y (4) falta de infraestructura en la red. Las consideraciones legales incluyen exenciones de licencias para consultas fuera de los límites del Estado, confidencialidad del paciente y seguridad de las imágenes remitidas a través de líneas de modem, y fiabilidad del equipamiento, del lugar de consulta y del consultante en los procedimientos legales.
Conclusiones: Las consultas de telemedicina ofrecen una oportunidad única para aumentar el nivel de las evaluaciones de maltrato infantil, pero el éxito depende de la motivación de los clínicos, de la infraestructura apropiada y del apoyo técnico y económico.