Using the Internet for Clinical Training: A Course on Network Therapy for Substance Abuse

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A variety of computer applications have been adapted for medical education and technology transfer (1). Among these, the Internet offers a unique combination of advantages and a potentially important role in training. This worldwide communications network can provide students and professionals immediate access to a prepackaged training module without having to purchase a textbook or a CD-ROM. On the Internet, the module is accessible to an audience of unlimited size and is not time or location bound like a live lecture. The module can also be adapted to an interactive format, allowing for exchanges among students and faculty.

These aspects of the Internet are illustrated in a teaching module that we prepared at New York University (NYU) Medical Center. The module, which is designed to enhance skills in the treatment of alcoholism, is located at Web site http://www.med.nyu.edu/substanceabuse/course. Readers of this column can immediately gain access to this course in addiction treatment.

In this column, we describe how the Internet course was conceived and applied and then consider the implications of this initiative for technology transfer in the addiction field.

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The need for expertise

Substance abuse treatment is a subspecialty in which expertise is generally not available at the clinician's site of practice. Parallels exist in other subspecialties such as geriatrics and forensic psychiatry. However, credentials have been established in these areas by the American Board of Psychiatry and Neurology because of an apparent unmet need (2). Unlike general psychiatry, for which departmental training is required at all American medical schools, these subspecialties are not formally represented in most medical schools or in graduate mental health programs. This situation has resulted in a shortage of clinical training staff that is likely to persist for some time.

The emergence of new pharmacologic and psychosocial options for addiction treatment highlights the shortage of teaching faculty. Relatively few of the psychosocial techniques that have emerged in the addiction field in recent decades have achieved widespread acceptance among treatment specialists, let alone among general psychiatrists and other mental health workers. Relapse prevention (3) and community reinforcement techniques (4) have not been widely available to patients treated by office practitioners because these practitioners generally lack the support of a facility-based addiction treatment program. Furthermore, some recently developed pharmacologic options are not readily adapted to the office practice setting. Expertise in combining pharmacotherapy with complementary psychosocial therapy is sorely needed by those who encounter complex substance abuse cases.

To adapt contemporary therapeutic modalities for the clinician and trainee, we developed a modality called network therapy (5,6), which combines a number of psychosocial approaches in an abstinence-oriented package that is practical to apply. The approaches include family and social support, relapse prevention, and an interpersonally oriented individual therapy. In network therapy the therapist and patient together select a group of several people close to the patient from his or her circle of family and friends. This "network" meets as a group with the patient and therapist at intervals over the course of the substance abuse treatment, concomitant with individual therapy. The role of the network is to work with the therapist and patient to establish and stabilize abstinence, to prevent relapse, and to address a slip should it occur.

The Internet course

In our Center for Medical Fellowships in Alcoholism and Drug Abuse at NYU, we have collated information on advanced training programs in addiction psychiatry and have collaborated with fellowship training directors in establishing curricula for trainees (7). We wanted to provide an experimental module for clinical addiction training on the Internet at the center's Web site (med.nyu.edu/substanceabuse), and we selected as the subject a new pharmacologic option coupled with network therapy.

In network therapy one option is to have a network member observe and monitor the patient's ingestion of a medication such as disulfiram for alcoholism and naltrexone for opiate dependence. Naltrexone has also been found to diminish craving and relapse among alcoholics (8), but because its efficacy depends on compliance with pill ingestion (9), we framed the course around the use of network therapy with observation of naltrexone ingestion. We described the network therapy technique on the Web site; the description was adapted from the manual that we use in residency training (10). We also described the particulars of medication monitoring.

The course was designed primarily for psychiatrists but is suitable for other interested parties. It consists of one protracted sequence made of up three segments, or sessions. Topics covered include initiating treatment, establishing a network, and monitoring naltrexone ingestion. Although the course has no quiz on content or CME credits, respondents are given some questions for reflection and are queried on their reactions to the course. Furthermore, additional material on naltrexone and bibliographic references can be reached by a computer link and printed out.

The Internet course became available for use in October 1996. No readily available means exist for disseminating information on Internet training for mental health professionals interested in learning about addiction. To reach a broad audience, we placed an advertisement in *Psychiatric News,* the newspaper of the American Psychiatric Association, indicating the availability of a "free course on alcoholism treatment." Our goal was to ascertain the level of response among psychiatrists and to determine whether those who logged on to the course would maintain interest in the material and evaluate their experience with it.

The initiative was revealing of how such didactic options can be applied. At present, Web site construction requires technical options that are not readily available to most teaching faculty, such as the use of hypertext markup language (HTML), the language used in constructing a Web site, and related graphics programming. Determining the number of unique respondents who log on to the Web site is also difficult. A total of 679 "counts" or episodes of access to the introductory segment of the course were recorded over five months. A careful review of the responses to question sets in the course allowed us obtain a set of 240 unique respondents who continued beyond the introduction. They consisted of 154 psychiatrists, 56 other professionals, and 30 nonprofessionals.

We evaluated the responses of the psychiatrists to clarify the views of this relatively homogeneous group. The majority of the psychiatrists (N=87) completed the entire course and answered a question set at the end. To the question about whether the didactic material on network therapy was useful, 70 percent of the psychiatrists responded "a good deal" or "very much." Asked whether the course improved their ability to use naltrexone in treating alcoholism, 64 percent responded in the same two categories. Details of the responses and technology will be published elsewhere. We will continue to monitor parties who log on to the course and anticipate that more professionals will do so after they read this column.

This experiment in Internet education and technology transfer employs the relatively user-unfriendly technology currently available, but advances in the field will undoubtedly allow for greater use of this format, even within a few years. For example, automated HTML programming for construction of Web sites will soon make it more convenient for individual academics to mount offerings on the World Wide Web.

Implications

Development of Internet user networks (such as list servers) in the addiction field to aid in disseminating information should facilitate access to professionals interested in updating their knowledge on specific clinical topics. The Physician's Online [Internet] Service, which has reported as many as 12,000 users logging on in one day, illustrates the potential strength of a multispecialty undertaking, although the cost of mounting a course in such a for-profit entity may be considerable.

Clinically useful content is, of course, the most important component of any Internet endeavor, and a loose array of developments illustrate the current availability of such material in the mental health field. Program packages have been developed for computer use, but not on the Internet, for improving diagnostic skills (11) and for organizing clinical charts (12). With regard to clinical technique, programs that provide structured treatments for phobias have been prepared but not yet published or validated (13). An initiative for developing training modules for the Internet has been reported by faculty at the University of Iowa, who anticipate offering courses for continuing medical education credit (14). However, we know of no published empirical data on an Internet course in either the addiction or the clinical psychiatric field.

The potential for such courses, however, is considerable. Fellows in addiction psychiatry, practicing physicians, and nonmedical clinicians could be offered specialized material not otherwise available to them and could also interact with training faculty. With the requirement for recertification every ten years for diplomates holding Certificates of Added Qualification in addiction psychiatry, updating of specialized treatment technology will be obligatory. Recertification examinations could also be taken on the Internet, particularly since giving these examinations on a take-home basis is now being considered. Furthermore, certain journals, such as *Science* and the *New England Journal of Medicine,* are now available on the Internet in their entirety, and a similar option could be undertaken in the addiction field, at least for selected articles.

A generation of health professionals in training are now computer literate and increasingly skilled in using the Internet for e-mail and for gaining access to standard resources such as MEDLINE. It seems quite likely that more of such training will be made available through the Internet in future years. ♦

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months after I was hired in that position, the agency chief found a way to reorganize me out without violating the Americans With Disabilities Act. Luckily, I had seen it coming, and I had networked sufficiently that I had another really good position lined up.

In the new position, I was given a urinalysis and was then harassed for two weeks while trying to explain the presence of "known chemically addictive agents" in my urine. I went into a state of absolute nervous overload. I never quite knew what to say, or to whom. I never felt I could trust the director for whom I was supposed to be working. Even though the management finally accepted that it was prescription meds in my system, they never fully reconciled that someone with such a disability could hold such a responsible position.

I lasted a whole ten weeks in that job. I was laid off along with others in a massive agency downsizing. I haven't yet decided whether I want to believe that I'm just really, really unlucky in work or that the agency took an opportunity to rid themselves of potential trouble.

My paranoia is running pretty high at this point in life, as you might imagine. I can't figure out how to lie on insurance forms and obtain company coverage without the whole organization finding out what my problems are. I can't laugh at a joke without worrying that perhaps I laughed too loud, or for too long, and that maybe somebody will figure out that I have this awful diagnosis. For the life of me, I haven't yet identified any real manic behaviors in myself. Neither have the family and friends with whom I spend the most time.

What I have observed is the absolutely anxiety-ridden Tammy, trying to be comfortable in rooms full of professionals. After my experience with the battered women's organization, I may never feel at ease any place where I know I am being scrutinized or evaluated in any way. Even on normal doses of lithium, I noticed that I tended to react differently in certain situations. I noticed that I tended to dismiss certain information as unimportant much too readily. I would either miss it while it was under discussion or dismiss it immediately afterward as insignificant or too complicated. I also hated that feeling of not having all of my intellectual abilities with me at all times.

For the most part, I am confident that it is not my actions or speech that indicates I have a mood disturbance. I think that in the current workplace environment, where every employee is so easily replaced, employers are availing themselves of every opportunity to investigate all new employees, their health histories, and their family situations before (and sometimes after) bringing them on board. I offer this final vignette as a case in point.

In my last attempt at employment, I chose a home health agency in my home town. Thanks to my track record these past four years, I decided to give up management positions and went back to doing frontline social service provision. My poor luck found me returning for my preemployment exam to the same doctor's office in which the original diagnosis of manic-depression had been made four years earlier.

I saw a different doctor, so I made it through the initial exam, but by the end of the month the nurse assigned to review the records for the company took it upon herself to inform the human resource coordinator of my diagnosis. I was again laid off (along with others) during a work slowdown two months after hire, only to be called back part time. The company, of course, does not offer health insurance to part-time employees. Is this a coincidence? Is any of it?

I am now working diligently with my team of mental health professionals to determine if in fact I really do suffer from manic-depression. I believe, after four years of reading and studying, that my symptoms more closely resemble those of a severely depressed person with periodic anxiety and full-blown panic attacks. The list of descriptors is very nearly identical for hypomania and severe anxiety. I'm keeping an open mind, as are my doctors who are working with me to assure a correct diagnosis. My only fear is that no matter what the final decision, I'll still be left wondering where and how I'm going to fit in out there in today's workplace. ♦

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