

Dissemination and adoption of social skills training: Social validation of an evidence-based treatment for the mentally disabled

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Abstract

Background: The UCLA modules for training social and independent living skills (SILS) were developed to teach persons with severe mental illness skills for disease management, affiliative relationships, and instrumental role functioning. Eight modules have been produced and evaluated in controlled studies.

Aims: To review the adoption of the modules by practitioners, and identify procedures for dissemination.

Method: Practitioner and program experiences with the modules were inventoried to identify factors associated with adoption and utility. Secondary dissemination was evaluated in agencies that disseminated the modules beyond their own patients by training other professionals. Determination was made of cultural adaptation of modules for use in various countries.

Results: The SILS modules have been widely implemented throughout the US, translated into 23 languages, and implemented in more than 30 countries. International studies document their crosscultural efficacy, effectiveness, and utility. Factors associated with successful adoption included the modules' user-friendliness, preparation and interpersonal strategies with the adopting agencies, and follow-up consultation.

Conclusion: International adoption and empirical evaluation of the SILS modules have established their external, social, and professional validity. Widespread utilization of the modules was facilitated by their utility in meeting the functional needs of patients participating in a range of existing clinical programs.

Keywords: *Psychosocial techniques/treatments, social skills training, schizophrenia psychosocial rehabilitation, dissemination and adoption of innovations*

Introduction

There is nothing more doubtful to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old system and merely the lukewarm defenders in those who would gain by the new one. (Machiavelli, *The Prince*)

Social skills training is an educational and clinical modality in wide use in mental health settings, family, marriage and divorce counseling, parent training, schools, corrections,

police work, and the corporate sector for over 50 years. It has had many monikers, including assertive training, psychosocial or interpersonal skills training, training in communication skills or social relations, independent and community living skills, salesmanship and customer relations, personal effectiveness and social problem-solving. In psychiatry, social skills training has been used as a primary or supplemental treatment for social dysfunctions in the full range of disorders of children, adolescents and adults. The disabling nature of deficits in social and independent living skills of persons with severe and persisting mental disorders was a strong rationale for developing social skills training as a rehabilitation modality that could attenuate those deficits.

A confluence of events brought social skills training into the arena of psychiatric practice for the severely mentally ill. As de-institutionalization got underway in the mid-1960s, staff members in newly established community mental health centers lacked treatment services for meeting the needs of the mentally disabled patients who were woefully unprepared for entering community life. Antipsychotic medications were reasonably effective in subduing symptoms of schizophrenia and other psychotic disorders, but medication never was able to teach anyone how to function and live more effectively. But practitioners and mental health agencies do not change their treatment approaches simply because their current methods are ineffective. Innovation in human services requires a positive force from alternative modes of effective intervention that have appeal, make sense and are utilitarian. The 1960's inaugurated a radical transformation in psychosocial services for the mental health field; a paradigm shift was powered by the advent of behavioral therapies. Once it became clear that educational principles, adapted from academic laboratories of operant and classical conditioning as well as social psychology and social learning theory, were effective in improving the behavioral functioning of even the most regressed patients with schizophrenia, a new optimism flooded the field (Ayllon & Azrin, 1965, 1968; Ullmann & Krasner, 1965).

If the deviant and bizarre behaviors, symptoms and self-neglect of patients with schizophrenia could be remediated with reinforcement techniques, why couldn't a treatment be developed to improve their *social functioning*? This seemed particularly important since one of the most robust predictors of long-term outcome in serious mental disorders is pre-morbid social adjustment. Additional rationales for crafting a new treatment to improve social competence of patients came from the social impairments that were associated with side effects to antipsychotic medications, the abject passivity that was part of schizophrenia and the depressive phase of bipolar disorder as well as consequences of institutionalism.

The various elements fertilizing a rationale for a new modality led to the advent of social skills training for persons with schizophrenia and other chronic psychoses (Liberman, 1970, 1972a,b). Social skills training has been used as a supplement to antipsychotic medication in the mentally disabled since medications are primarily effective for symptoms while social skills training teaches patients to improve their interpersonal functioning, community adjustment and quality of life. More recently, social skills training is being viewed as a means of empowering patients and giving them hope by enabling them to reach their personal goals as they tread their own pathway toward recovery.

What is social skills training?

Social skills training can be conducted in various formats, including with individuals, families and groups (Liberman et al., 1975, 1989). When used for the benefit of patients with serious mental illness, skills training has been effectively applied in hospitals, clinics, private offices, psychosocial rehabilitation clubs, psychiatric hospitals, day treatment centers

and in natural community locations. This modality is distinguished by its explicit or implicit use of social learning principles:

- Specific and ascertainable interpersonal goals are set for valued and functional outcomes in the individual's everyday life.
- Goals are set collaboratively by the therapist and patient to identify relevant, current situations that are characterized by their (1) functional importance, (2) nature of the communication to be learned, (3) person(s) to whom the communication is to be directed and (4) the place and date/time when the interpersonal contact is to be made.
- Motivation is enhanced by linking stepwise, incremental goals to the individual's long term, desired and personally valued goals in life.
- The focus of training is on accurate social perception ("receiving skills"), selecting an appropriate response from among alternatives ("processing skills") and responding with appropriate verbal, non-verbal and paralinguistic skills that are congruent with social norms and rule-governed behavior.
- Modelling of appropriate behavior is arranged for the learner to acquire requisite skills through vicarious identification.
- Role playing of appropriate behaviors is rehearsed using scenarios that are simulations of real life interpersonal interactions.
- Positive feedback is given by the therapist contingent upon improvements in the learner's social behavior.
- Repeated practice with additional modeling and feedback is encouraged until the performance of the social skills are at a level suitable to implement in the learner's everyday life.
- Assignments are given to the patient to implement the skills in planned situations with the persons(s) who are instrumental for the patient to achieve his/her goal.

Social skills training for persons with schizophrenia and related disorders has been empirically validated in hundreds of publications, including reviews and meta-analyses (Heinssen et al., 2000; Kopelowicz et al., 2006). The method has also been recommended as an evidence-based practice in guidelines for treatment of schizophrenia (American Psychiatric Association, 2004; Lehman et al., 2003).

Stages of legitimization of social skills training as an evidence-based treatment

There are seven stages to the ratification of a treatment such as social skills training, from planning to broad acceptance and utilization by the mental health field. As shown in Figure 1, the process begins with the research and development that results in the design of the intervention. Field tests are then used to refine and revise the program prior to submitting it for research on its efficacy.

Once efficacy is established in randomized, controlled trials, effectiveness studies are organized and directed by the treatment's innovators in mental health sites that reflect customary clinical practice with patients and treatment personnel. Efficacy documents an intervention's internal validity, reflecting the causal relationship between the intervention and its outcomes. An intervention is said to have external validity when effectiveness studies registers its generalizability to a variety of settings and populations.

Dissemination of a novel and singular treatment is distinguished by the adoption and regular use of a treatment or service by practitioners and mental health facilities that are not under the aegis, sponsorship or organizational control of the innovators. In the process of

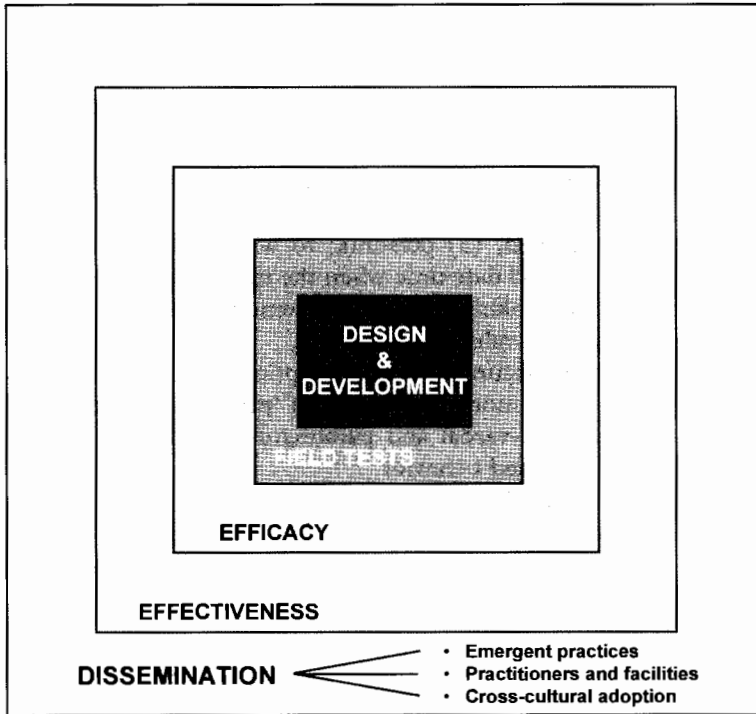


Figure 1. Levels of development and dissemination of innovations in psychosocial treatments for the seriously and persistently mentally ill.

dissemination, the original innovators customarily relate to those adopting the treatment as consultants, trainers or agents of change, but the “ownership” and clinical responsibility resides with the adopting team, program or facility.

Emergent practice is a form of dissemination that occurs when the original treatment is adapted by practitioners and programs for novel purposes; that is, for settings and patient populations which were not the focus of the initial development and implementation of the treatment. A second type of dissemination is characterized by the adoption of the innovation by individual practitioners, mental health programs, local and state sponsored facilities and systems of care for the same types of patients and in the same country as the innovators. This level of dissemination and adoption indicates the social validity of the intervention because it reflects the acceptance, value and utilitarian nature of the therapy as evinced by ordinary practitioners and institutions who are not participating in research sponsored by the academic creators of the therapy. Cross-cultural validity of an intervention exists when it is successfully translated into a foreign language, adapted to the professional and societal customs of that country and adopted by substantial numbers of practitioners and mental health facilities in that country.

UCLA modules for training social and independent living skills

Social skills training has many variants. There are differences in the reliance of the modality on behavioral learning principles, the degree of structure and organization, use for groups, families and individuals, frequency and duration of the training process. To add consistency

and clarity to the mantle of disseminating social skills training, a particular form of social skills training will be the subject of this article: the modules of the UCLA Program for Training Social and Independent Living Skills. This distinct type of social skills training was chosen because the modules have a coherence in their structure and procedures and have been disseminated more widely than any other form of social skills training that has been developed and used with the seriously mentally ill.

Because the complexity of the configuration of a treatment influences its ease of dissemination, we first describe the design of the UCLA modules and the field testing that readied it for studies of efficacy, effectiveness and dissemination. Following these sections, dissemination of the modules is described in terms of:

- emergent use of the modules with unique populations and settings,
- use of the modules by mental health facilities and systems of care in the United States,
- cross-cultural adaptation and use of the modules in foreign countries.

Design of the modules

Incorporating the learning principles common to all forms of social skills training, the modules of the UCLA Social & Independent Living Skills program were designed to be used readily by practitioners without the need for an apprenticeship training that customarily requires months of participant observation. The domains of skills for the modules are medication management, symptom management, substance abuse management, community re-entry, recreation for leisure, basic conversation, friendship and intimacy and workplace fundamentals (UCLA Modules for Training Social and Independent Living Skills, 2006). These topics were chosen for the modules because they have been shown to be instrumental for meeting most personal goals and promoting community adaptation of patients with serious mental disorders.

The format or organization of a module includes a series of skill areas, each of which contains the behaviorally specific, educational objectives for that section of the module. The organization of the symptom management module is depicted in Figure 2. The modules have been constructed to teach patients specific functional skills, solve problems that may be encountered while attempting to use the newly learned skills and practice the skills in the natural environment. Each module is composed of a prescriptive clinician's manual, a video for demonstrating the skills to be learned and a patient's workbook that contains practice exercises and self-monitoring forms. Skills are taught by using a combination of focused instructions, motivational enhancement, observational learning, role-played rehearsals, social and videotape performance-based feedback, problem-solving and assignments to use the skills in the natural environment.

Patients proceed through each skill area in a specific sequence of learning activities, listed in Table I. Starting with an introduction that aims to highlight the values and advantages of learning the skills that are taught through the module, the learning activities proceed experientially so that the participant is coached to answer a series of questions: Which of my needs and goals can I achieve if I learn the skills? By rehearsing the skills can I become proficient in them? What persons, money, transportation and information do I need if I am to succeed in using the skills? How do I remove obstacles that may interfere with my implementing the skills and obtaining my goal? What do I need to do to actually use the skills in my real life?

Socratic questioning is used to assist the patients to grasp the connection between their own personal goals and the skills they will be learning. For example, a socially isolated

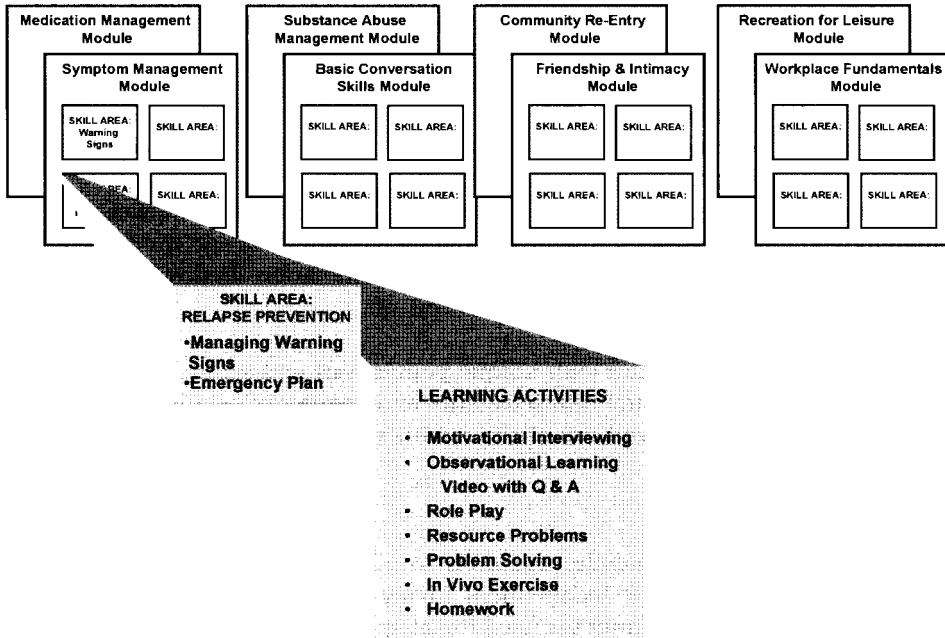


Figure 2. Structure and format of modules in the UCLA Social & Independent Living Skills Program.

Table I. Learning activities used in training skills for the modules in the Social and Independent Living Skills Program.

Learning activity	Function of learning activity
Introduction	Motivational enhancement, setting favorable expectations
Video with questions & answers	Vicarious learning through observing skills being used
Role play	Behavioral rehearsal of skills with coaching and reinforcement
Resource management	Using problem-solving to identify people, money, time, and transportation for putting skills into effect.
Problem-solving	Identify problems as obstacles interfering with attainment of goal; generate alternative solutions and consider pros and cons before taking decisive action.
In vivo exercises	Practice skill in natural environment with coach facilitating your having success
Homework assignment	Practice, practice and practice until the behavioral goal is attained.

woman who wants to develop friendships is led to realize how progress toward her goals is fostered by learning the abilities taught in the Basic Conversation Skills module (e.g., recognizing social cues from others, learning conversational “openers”, using appropriate self-disclosure). A “discovery learning” method is embedded in each of the learning activities which enables patients to become partners in the rehabilitation process thereby empowering them with shared responsibility for their outcomes. The modules are easily adapted to individual, family and group modes of treatment.

User friendliness for practitioners

Because the Trainer's Manual is so descriptive, even to the extent of offering practitioners scripts to use in the various learning activities, little previous knowledge and competence in conducting social skills training is required. The manual offers tips for anticipating and dealing with problems that might foil a smooth learning process. The module was designed so that non-professionals could serve as trainers. In fact, this aim of "user-friendliness" has been actualized as recovered consumers, family members, operators of board-and-care homes and paraprofessionals of all stripes have productively served as trainers. The video component in the module also improved the user-friendliness of the treatment since it eliminated the need for extensive role-playing to bring patients up to a standard of skill sufficient to serve as role models for each other in the group training process.

Of course, as in any therapeutic modality for the mentally ill, group leaders are more effective when they are enthusiastic, direct, structured and able to give social reinforcement for small signs of learning and progress. Many paraprofessionals and non-professionals have natural personal attributes of empathy, warmth, spontaneity, organization, patience and persistence which amplify their effectiveness as teachers as they reach out actively to patients with congeniality. For clinicians to be effective trainers, they must have some rudimentary teaching skills. Even highly trained professionals with master's level or doctoral degrees are unsuitable trainers if they are stiff, non-directive, have a predilection for "talking about" issues instead of using behavioral principles or cannot readily give abundant, genuinely felt, positive social reinforcement for small signs of learning by the participants.

Compensating for the learning deficits of the intended patient population

The design of the modules enables clinicians to leap over a significant barrier to the effectiveness of the training. Because patients with schizophrenia and other disabling mental disorders often have enduring cognitive deficits and persisting symptoms, their learning of skills could be jeopardized if a standard form of social skills training was used. Therefore, the training procedure inherent in the modules was designed to employ educational and behavioral methods that accommodate to the learning disabilities of participants. Techniques delineated in Table II were built into the learning activities of the modules, permitting even symptomatic, distractible and slow learners to acquire knowledge and skills (Eckman et al., 1992). The aim of having "special education" as a keynote of the modules overcame a clinician-oriented barrier; namely, the negative appraisal of an innovation by prospective clinicians who often might say, "The modules may be effective for your patients, but they would never work with mine because my patients are sicker". The techniques imbedded in the trainer's manuals as "Remarks to Trainers" serve a function akin to "stage directions" in the dramatic arts, facilitating the training process for neophytes to social skills training or behavior therapy.

Field testing and refinement of modules

Initial field testing was carried out at two veterans' hospitals whose staff were given training by the innovators. Many problems in the format and learning activities were identified and corrected for the next iteration of the modules. For example, it became clear that most of the staff targeted for using the modules had little or no previous experience or know-how, not only in behavioral or educational principles, but also in leading groups. This led the

Table II. Educational and behavioral techniques that broadened the applicability of the modules for a broad spectrum of patients.

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- Task analysis for breaking down complex skills into their components enables patients to progress incrementally through the learning activities of each skill area, mastering the constituent skills and putting them together through repeated practice.
 - Repeated practice, referred to as the “soul of learning”, allows trainers to individualize the learning process, so that each person in the group can proceed at his/her speed.
 - Active learning is emphasized over “talk and discussion” thereby exploiting the procedural or implicit learning and memory processes that are not impaired in persons with schizophrenia. The use of video for observational and vicarious learning as well as role playing for the skills to reach criterion levels of mastery does not burden the brain’s verbal processing of complex information.
 - Each skill area for each module has the same, repeated sequence of learning activities so that patients become familiar with the learning process and move seamlessly from one skill area to another and from one module to another.
 - A problem-solving process is taught as one of the repeated educational techniques which serves as a “prosthesis” for participants who are often stymied when they encounter novel situations calling for them to use their skills. Competent performance in each of the skill areas is characterized by comprehensive and accurate knowledge translated into finely differentiated production rules organized into goals and sub-goals. Production rules connect the skills implanted in the modules with the problem-solving conditions in the real world.
 - In-vivo exercises and homework assignments are given that help participants to bridge the gap between clinic-based training and use of the skills in natural environments.
 - Trainers are prompted to facilitate generalization of the skills by identifying case managers or peers and family members of the participating patients to provide opportunities, encouragement and reinforcement for patients’ use of the skills in real life situations.
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innovators to include in each module a section devoted to “Guide to the Module”, “Laying the Groundwork”, “Introduction to the Skill Areas” and a “User’s Guide”.

The re-worked modules were then exposed to a much broader, national field test. There were two aims for this phase of field testing: (1) the utility, acceptability and fidelity of use of the modules by a diverse, multi-disciplinary group of clinicians and (2) the capacity of the modules to be used ably by practitioners with only limited consultation by the innovators. It was hypothesized that the modules were sufficiently detailed with a surfeit of instructional clarity and specificity to be capable of “standing alone” without the need for direct training of prospective users through workshops or apprenticeships.

If they could meet this stringent requirement, the appeal and applicability of the modules would be considerably broadened at lower cost in time and money for interested practitioners and mental health agencies.

The Medication Management Module was the focus of this field trial (Eckman, Liberman, Phipps & Blair, 1990; Liberman & Eckman, 1989). The module comprises 5 skill areas for training patients with psychotic disorders to manage their own medication: obtaining information about the benefits of medication; correct self-administration and evaluation of medication; identifying side effects of medication; negotiating medication issues with health care providers; and using injectable, longacting medication. Twenty-eight field test sites were assigned to one of two conditions: a training workshop for practitioners plus phone consultation vs. phone consultation alone. The sites in both conditions represented a wide geographic distribution and broad range of inpatient, partial hospital and day treatment centers located in public and private psychiatric facilities. Participating trainers came from a variety of disciplines: psychiatry, psychology, social work, nursing, occupational therapy and paraprofessional mental health workers.

A total of 160 patients with a primary diagnosis of schizophrenia who were candidates for maintenance antipsychotic medication participated in the trial, approximately six from each

of the 28 sites. The training workshop covered 2 days with experienced trainers leading the module in live demonstrations with real patients. Next, the practitioners getting trained participated in structured exercises and practice sessions until they met criteria for fidelity to the module procedures. In the consultation only condition, practitioners received the module elements with the user's guide and, with guidance from phone consultation, were encouraged to read the materials carefully, view the module's video and engage in role-play practice with colleagues. Fidelity to the module procedures was measured by self-report tests of knowledge of the module's content and procedures; in addition, assessors trained to acceptable levels of reliability who visited each facility from both conditions and observed the module being led by the practitioners on the staff.

The results were clear and consistent. The professionals from participating sites in both conditions demonstrated high levels of fidelity to the module procedures. Evaluation of the impact of the module on patients yielded similar increases for those in both field test conditions in knowledge and performance of the constituent skills. Medication compliance by patients also increased significantly and in both conditions. The findings suggested that the modules in the UCLA program could be widely disseminated to diverse mental health facilities and practitioners, achieving positive results with no direct training and only minimal, phone consultation.

Several years later, because of numerous requests from practitioners who purchased the modules, the UCLA program produced a series of videocassettes that demonstrated each of the learning activities from the modules with expert trainers leading a module with actual patients. The video-based training was designed as a self-directed, self-paced program for those who wanted to gain a measure of competence and confidence from the start. This was in accord with the findings from the field trial that documented greater "finesse" and confidence in meeting competency criteria by practitioners who had the training workshop.

Following the field testing, the modules were prepared for a series of efficacy and effectiveness studies. The results of these controlled studies yielded convincing results that patients with schizophrenia and related disorders were able to learn, retain and use a wide variety of skills relevant to social and independent living (Eckman & Liberman, 1990; Eckman et al., 1992; Glynn et al., 2002; Kopelowicz et al., 2003; Liberman, et al., 1987, 1998, 2002; Marder et al., 1996; Rossotto et al., 2004; Shaner et al., 2003; Sullivan et al., 1990; Wallace et al., 1992; Wirshing et al., 1992). The research that led to the modules being endorsed as an evidence-based treatment is not summarized here because the focus of this article is on dissemination.

Because there is a misguided view by many practitioners and academics that educational programs for the mentally ill that are aimed at teaching knowledge or skills should *automatically transfer to real-life situations*, some clarification is needed to place social skills training into its learning context. Even in normals who do not experience significant cognitive deficits, new skills that are learned must be practiced in the situations where they are to be used for generalization to be successful.

Consider as examples learning to ski, drive a car, dance, speak a foreign language or perform surgery or diagnostic evaluations. It is even more important for the seriously mentally ill to be given opportunities, encouragement and reinforcement for practicing the skills learned in a clinic, hospital or in the community if generalization is to be expected.

Generalization can be augmented by various personnel, including community-based professionals (e.g., case managers) or non-professionals (peers, friends, family members, staff in community residences). These "generalization aides" are oriented and supervised by the therapists leading the module groups (Glynn et al., 2002; Liberman et al., 1998, 2002;

Tauber et al., 2000). As innovations are made in the use of electronic equipment, it is expected that considerable utility will derive from the use of cell phones, digital cameras, beepers and the internet (Liberman et al., 2004). Once it was determined that efficacy and effectiveness were achieved by the modules, the innovators turned their energies to the design of dissemination activities for wide-scale adoption of the modules in ordinary clinical practice.

Obstacles to dissemination of a mental health treatment

To put the dissemination and adoption of the modules for skills training in perspective, it is necessary first to grasp the substantial obstacles that interfere with the transfer of a new technology to mental health professionals. Publications and presentations at professional meetings continue to be viewed as legitimate forms of dissemination of psychological innovations in the mental health field, despite the well-documented failure of such media to have an impact on actual use of new techniques by practitioners in the field (Backer et al., 1986; Torrey et al., 2001). Journal articles and books are written for the benefit of researcher-innovators for garnishing their curriculum vitas, gaining academic promotions, winning prominence in the field and communicating with other researchers. In reality, their efforts in print or word languish in libraries and cyberspace.

Fortunately for progress in the mental health field, some innovators have risen to the occasion and identified truly effective means of technology transfer (Drake et al., 2006; Fairweather et al., 1974; Glaser et al., 1983; Liberman et al., 1982; Tornatzky et al., 1980). Prior to disseminating psychosocial innovations, designers of these methods should be familiar with the multiplex hurdles that must be cleared if adoption is to be achieved. The challenges that face innovators who wish to gain widespread acceptance by clinicians of empirically validated, novel treatments are manifold. Challenges can be viewed as obstacles to transferring a newly validated treatment from the innovator to ordinary practitioners who have no vested interest in the procedure. Three inter-related obstacles face innovators who embark on the journey of dissemination:

- Factors related to the innovation itself in terms of its fit with the patients for whom it was designed, the clinicians who are the intended users and the relationship between clinician and patients that hold the interpersonal currency that ensures a successful learning transaction.
- Factors related to the adopting organization that is involved in the dissemination effort.
- Factors related to the training and preparation of personnel for adoption of the innovative clinical procedures.

Each of the types of obstacles is illustrated in Table III with problems specifically related to the dissemination of social skills training to practitioners working with the mentally disabled. The remainder of the article will document how the modules in the social and independent living skills program have met success in overcoming these obstacles.

Strategies for dissemination of the modules

Experience obtained from a prior dissemination project in which six evidence-based treatment programs were disseminated to 50 community mental health centers throughout the United States (Liberman et al., 1982) equipped the UCLA team with practical strategies for dissemination of the modules. Among the key factors in contributing to successful

Table III. Obstacles to successful dissemination and adoption of innovations for psychosocial treatment of the seriously mentally ill.

Obstacles	Examples related to social skills training
Patient characteristics	Symptoms and cognitive deficits interfere with learning
Clinician characteristics	Inertia and resistance to change; inadequate skills and training
Clinician-patient relationship	Shift required from talk therapy to active teaching
Attributes of the innovation	Social skills training is a complex modality
Procedures used in training staff	Lectures and workshops off site have little impact on practice
Organization and administration	Inadequate support of innovation; lack of a change agent for technology transfer; no reward structure favoring adoption.

adoption of those earlier programs that were incorporated into the dissemination of the modules were:

- Obtaining a formal agreement in a signed contract from the facility seeking training and consultation for adopting the modules being disseminated – listing specifically the requirements for participating in the training:
 - time off for staff to participate in training and consultation
 - use of local patients for demonstrating the modules during the training period
 - collection of information on the impact of the modules on staff utilization, performance and satisfaction as well as on patients' participation and skill acquisition
 - identification of a liaison from the adopting site who would be responsible for two-way communication and problem-solving with the innovators
 - gaining a commitment to implement at least one module for at least six months with an understanding that staff would have to shift their clinical activities to accommodate the time required to implement and lead the module(s).
- Availability of an "internal champion for change" at the adopting site who could be a person with informal or formal status, admired for his/her clinical competence and enthusiastic about introducing and supporting the implementation of the modules. This person would serve as the organization's bridge over which the innovation could travel from innovators to adopting practitioners, primarily as a role model, trainer of trainers and agent for quality improvement. The "internal champion" could be the same as the individual subserving the liaison function.
- Provision of an expert consultant from the innovating team who would be responsible for fielding questions, concerns, problems and work closely with the "internal champion" and liaison as a first stage effort to sustain morale and motivation while also "putting out fires".
- Outlining the responsibilities of top and middle management in mandating rehabilitation as a mission of the facility as an overarching principle and social skills training as one of the specific evidence-based services that would be supported administratively. The most important managerial responsibility was re-writing performance standards and evaluation criteria to include the maintenance of the modules at mutually agreed upon frequency and quality.
- Negotiating an agreement for long-term consultation from the innovators or other qualified specialists to provide for ongoing technical assistance for problem-solving, reinforcement and corrective feedback to the adopting agency. This type of longitudinal consultation has proven indispensable to corporations engaging in technology transfer and is even more important in human services.

- Inviting the managers, clinicians, consumers, family members and all other relevant stakeholders at each facility to use their judgment for prioritizing, modifying, adapting or “reinventing” the modules to fit their culture, resources, constraints and feasibility. This also empowered the people who would be involved in the implementation of the modules with a sense of ownership and personal involvement.

The remainder of this article describes the experiences of the scientist-practitioners of the UCLA Social & Independent Living Skills Program in the three generic types of dissemination: emergent practices with unique programs and patients, social validation in larger systems of care and crosscultural validation in foreign countries. It is essential for the reader to place the descriptions of dissemination of the modules in the context of practical efforts to translate an evidence-based practice into typical and conventional mental health facilities. To hold research and scientific expectations for evaluating the adoption of a mental health innovation by ordinary clinical programs and agencies is pointedly foolish. The most relevant assessment of the success of a dissemination process is the overall impact of the modules on the scope, focus and locus of services by recipient practitioners and programs.

Emergent practices: Adoption of modules for unique patient populations and facilities

Initially, the modules were developed for use with mentally disabled patients who were receiving services on a continuous basis for a three months or longer. The three-month period was the average time for a group of patients to complete a module with significant acquisition of skills. Thus, the modules were designed to function as competency-based services that generally required a group to meet twice weekly. This requirement could be met by most psychiatric hospitals, day treatment programs, outpatient clinics, community mental health facilities and psychosocial rehabilitation agencies. In line with the congruence of the modules with these types of facilities, initial dissemination efforts were invested in consulting with programs where patients were most like those where the UCLA rehabilitation team carried out its work: state and veterans hospitals, day treatment centers and community mental health centers.

However, as the mental health field became aware of the modules and their practical value for rehabilitation, requests for dissemination began arriving from a much wider constituency of programs than was originally anticipated. It became clear that, if the disparate needs of the much larger circle of interested facilities were to be satisfied, modifications of various sorts would have to be made by the innovators – in synchrony with the clinicians and administrators who were making the requests for consultation. Some examples of the emergent practices for adaptations of the modules are now presented.

Short-term stays in psychiatric inpatient units

With the extremely brief hospitalizations nowadays for psychiatric patients, it was essential to modify the modules so they could be used with patients during 3–10 day stays. This led to the crafting of a new module termed “Community Re-Entry” that consisted of 15 sessions related to medication selfmanagement, relapse prevention, continuity of care as an outpatient, selecting a community residence after discharge and scheduling activities for daily life after discharge to prevent stress, boredom and loss of a

goal-orientation for recovery. Staff and consumers at each inpatient unit could determine which of the 15 sessions were most important for them and schedule them on a once or twice daily basis.

At the psychiatric unit of the Olive View Medical Center, a large, general hospital sponsored by the Los Angeles County Department of Health Services, eight sessions were selected and offered twice daily on a recurring basis. This permitted any patient who had a four day stay or longer to participate in the full program. As they were admitted to the unit, patients were randomly assigned to the Community Re-Entry Module or to twice daily sessions of psychosocial occupational therapy. The former learned to make their own aftercare plans and the latter were assisted in the customary manner by social workers. Results were measured in terms of percent of patients who succeeded in attending outpatient sessions following discharge. Eighty-six percent of patients who participated in the module continued with their treatment as outpatients vs. 48% of those whose discharge planning was provided by social workers (Kopelowicz et al., 1998).

A similar evaluation of this module at a short-stay inpatient unit in a veterans' hospital, 75% of the participants continued their treatment as outpatients vs. 33% of those who participated in psychoeducational discussion groups (Rossotto et al., 2004). At another facility in New York, patients who participated in this module showed significant acquisition of skills that predicted post-discharge community adjustment (Smith et al., 1996).

Treatment refractory patients

Adaptations were made in the modules to enable very low functioning, thought disordered and treatment refractory patients to benefit from the modules (Goisman, 1998). Some of the modifications included using briefer sessions, reducing performance expectations for the behavioral objectives in each skill area into smaller behavioral units, showing shorter segments of the video to increase the likelihood of their attentiveness prior to asking them questions to tap their observational learning, using more prompting, modeling and repetition in the learning activities and reinforcing participation with credits, coupons or tokens that could be subsequently exchanged for valued rewards at a ward or unit canteen (Glynn et al., 1994). Effective leadership of the modules required experienced behavioral psychologists who were able to supplement the standard learning activities in the module's Trainer's Manual. Nursing staff were effectively engaged as co-leaders who circulated around the group prompting participants to make eye contact with the leader as the session unfolded.

Another adaptation made to enhance the learning of conversational skills in treatment refractory, cognitively impaired, distractible patients was supplementing the Basic Conversation Skills module with a shaping procedure. The patients were given token and social reinforcement by co-leaders for very brief intervals of paying attention and being involved in the learning activities. Initially the response requirement for reinforcement was 3–4 minutes of sustained attention. The duration of attentiveness was slowly increased by 2–5 minute increments depending upon the pace of progress of each individual. After 25 sessions, this patient was making eye contact and participating appropriately in the learning activities of the module for over 50 minutes per session, having started at 10 minutes (Silverstein et al., 1998). As would be expected, improvements in sustained attention achieved through shaping resulted in very significant increases in acquisition of skills from the Basic Conversation Skills module.

Forensic hospitals and prisons

The modules have been utilized in forensic hospitals for mentally ill offenders as well as in prisons where trans-institutionalization has resulted from closure of many state hospital beds in the United States. At a state prison in California that specializes in treatment of medically and psychiatrically ill inmates, an entirely new day treatment program was installed featuring the modules (MacKain & Streveler, 1990). Even though the program was run on a contract by the California Department of Mental Health with the Department of Corrections, the prevailing correctional milieu of security over treatment of inmates eventually led to a degrading of the program after two years. More durable and enthusiastic utilization of the modules has been achieved in the federal prison in Rochester, Minnesota. The presence of a determined and enthusiastic "champion" for the use of the modules was the main reason for this prison's implementation. There, the Chief Psychiatrist decided to use the modules as a means of transforming the prison's units for mentally ill inmates from custodial to rehabilitative. Her introduction to the modules came about fortuitously when she attended a one-day workshop on psychiatric rehabilitation given by this author for clinicians in the state of Minnesota. She had natural teaching skills, led the in-service training of her staff members in the use of the modules and then continued to participate as one of the group leaders once the modules were implemented. A site visit six months after they began using the modules documented high levels of fidelity for the module group leaders. This psychiatrist continued as an advocate for the use of modules in prisons; one year later, she succeeded in persuading the federal prison service to introduce modules to all prisons in the country.

Forensic psychiatric hospitals in the United States and Canada have also embraced the modules as a component in their psychosocial rehabilitation programs. For example, at the 1200 bed Atascadero State Hospital in California, modules have been a mainstay of rehabilitation services for more than a decade with high levels of satisfaction by staff and patients alike. A critical key to maintaining the quality of the modules has been the presence of one or more "internal champions" for this approach. Generally, these have been social workers and psychologists. When this hospital had Executive Directors who mandated the modules and had program directors who provided quality assurance oversight, the modules were run more regularly and with greater effectiveness in the learning of skills by patients.

Module for dually diagnosed, mentally ill substance abusers

Approximately 40% of patients with schizophrenia and related psychotic disorders have co-occurring substance abuse or dependence. To meet this enormous problem, a new dual diagnosis treatment program was established at the Greater Los Angeles Veterans Healthcare Center. The centerpiece of this program involved the design and development of a new module dedicated to this population and based on principles of relapse prevention and harm reduction. The Substance Abuse Management module has met with success, both in terms of empirical evaluation and utilization by facilities throughout the United States (Ho et al., 1999; Roberts et al., 1992; Shaner et al., 2003). It has been translated into Dutch and utilized by 27 mental health facilities in that country where dual diagnosis is a major problem. In a county mental health system in northern California, a controlled study compared assertive community treatment, modules for teaching social and independent living skills and standard treatment. Significantly greater benefits accrued to the patients in the skills training condition (Jerrell & Ridgely, 1995). In their definitive manual on integrated treatment for dual disorders, Mueser and his colleagues have included social skills training as one of the major elements in this approach (Mueser et al., 2003).

Integrating the modules within comprehensive treatment programs

Efficacy and effectiveness studies of pharmacological or psychosocial treatments are always imbedded within comprehensive programs including some form of case management, liaison with social and vocational agencies, involvement of the family, peer support and self-help programs and medical services. That the scope of treatments provided by holistic programs for the seriously mentally ill is rarely delineated in publications is to be decried, especially since it often explains some of the variance in outcome attributed to the specific drug or psychosocial treatment under study. Social skills training is often one element in a broader treatment program; thus, its dissemination also involves the implementation within an already existing program of services.

Assertive community treatment is an evidence-based service that includes service elements such as outreach, crisis intervention, psychiatric evaluation and drug treatment and close liaison with personnel related to residential settings, vocational rehabilitation, families and their surrogates, peer supporters, police and corrections and staff of inpatient units. As it became evident that assertive community treatment exerted little impact on employment and social functioning, evidence-based services such as supported employment and social skills training have begun to be introduced. In the absence of complex, disassembling research designs, it is not feasible to tease out the separate contribution of social skills training. However, the adoption of social skills training by the staff of assertive community treatment programs represents social validation for skills training as it reflects the value of this modality in the overall needs for service by the population of the seriously and persistently mentally ill. The incorporation of modules for social skills training into assertive community treatment has been increasing (Vaccaro et al., 1992) but it is difficult to identify its scope without reading through all published reports. For example, in the manual describing the principles and practices of multi-disciplinary teams employing assertive community treatment, there is mention that psychologists on teams use behavior therapy techniques (Stein & Santos, 1998).

In the 20 years of disseminating the modules for social and independent living skills, the UCLA team has consulted with assertive community treatment teams in five sites in California and other states. Adoption and adaptation of the modules has varied. Reasons for failure to implement modules were highlighted in one such dissemination effort in San Diego County. The teams of assertive community treatment were trained for two days in the use of the modules, but the program deferred further, recommended consultation on how to adapt the modules to the special needs of outreach to individuals living in widely separated regions of the County. One year later, the team indicated that they had discontinued efforts to use the modules because they were unable to bring patients together in one site for training in groups. Of course, it was obvious even at the time of initial staff training that significant adaptation would be needed to accommodate the individualized, community and home-based nature of assertive community treatment. The consultants from the UCLA Social & Independent Living Skills Program had considerable experience adapting the modules to individuals and their families through training in the home and various other locales in the community.

Specialized and comprehensive programs that go beyond assertive community treatment with a greater array of psychosocial interventions have included social skills training as a key treatment element. These include Dialectical Behavior Therapy for individuals with borderline personality disorder (Koons et al., 2006; Linehan, 1993), personal therapy (Hogarty et al., 1997), and "optimal treatment" that integrates the full range of evidence-based

therapies for patients with schizophrenia (Falloon, 1999; Falloon, in press; Petersen et al., 2005; Thorup et al., 2005).

Use of modules in community-based residences

Modules have been successfully disseminated to privately run residential care homes for the seriously mentally ill. The degree to which the implementation was successful and durable was markedly divergent but much of the variation could be explained by adherence by the group leaders to the specific learning activities inherent in the module training process. In one small city of California, the module trainers were non-professional operators of two board and care homes. They received brief consultation in social skills training with the modules and a demonstration of their use with their residents. The acquisition of skills by the residents and the fidelity with which the training was carried out were assessed using the Module Skills Test and the Module Fidelity Scale. The residents at both facilities were chronic patients with schizophrenia who had lived quiet and sheltered lives for many years. In one facility, the operator decided to take some shortcuts in the training and skipped over the role-play and two problem-solving learning activities. When the module skill test was administered, that home's residents showed only a small gain in skills compared to the other home where the operator kept strictly to the Trainer's Manual with the consequence that her residents showed large scale improvement in skills (Wallace et al., 1992).

The modules have been adapted and effectively used in services provided in the home which offers the advantage of counseling family members to "run interference" for patients as they attempt to use the skills in their everyday life. In one controlled study of in-home use of the modules, patients who were assigned to the home-based skills training had significantly greater improvement in their psychiatric symptoms and personal and social autonomy than their counterparts who received the same amount of treatment in day programs (Morian et al., 2006).

Combining the Workplace Fundamentals module with supported employment

The Workplace Fundamentals module was designed as an educational experience for persons with serious mental disorders to learn skills that would improve their tenure and success in a job (Wallace et al., 1999). The point of entry into the module is at the time of joining a vocational rehabilitation program or shortly after obtaining a job. The module has eight skill areas:

- How work changes your life
- Learning about your specific workplace and its performance expectations
- Identifying stressors and coping with them
- Managing symptoms, medications and side effects on the job
- Improving job performance
- Managing health and avoiding illicit drugs and alcohol
- Making friends and appropriate socializing
- Using supports and staying motivated.

Supported employment, such as the Individual Placement & Support program (Drake & Becker, 1995; Drake et al., 1999), has proven to be extremely effective in connecting severely mentally ill persons to jobs but is associated with a 50% attrition from jobs over a 6–12 month period. It was decided to conduct trials that would test the utility of the module

in fostering longer job tenure among persons who were participating in supported employment. Three studies have been conducted to date with equivocal findings (Mueser et al., 2006; Tsang, 2001; Wallace & Tauber, 2004). There appears to be some additional benefit for enhancing job tenure when the module is added to supported employment, but the clinical and statistical significance are yet to be determined.

Integration of social skills training in cognitive remediation

Cognitive remediation has been recently introduced for removing deficits in sustained attention, verbal and non-verbal learning and memory, working memory, decision-making and problem-solving. The remediation procedures are computer-mediated, extensive and time-consuming, utilizing various modes of training individuals to improve these cognitive functions through shaping, discrimination training, repetition and contingent reinforcement for correct responses. Because cognitive deficits appear to be rate-limiting for social learning and community adjustment, it has been hypothesized that improvement in cognitive functioning would enable patients to improve their social functioning. There is widespread consensus that cognitive remediation improves the cognitive functions that are targeted for computer-based training. But it has required systematic training of social skills, combined with the cognitive remediation, for patients to actually improve their social and vocational activities. Several programs have shown efficacy when using a combined approach of cognitive remediation plus teaching patients how to use their improved cognitive functions in everyday life (Bell et al., 2001; Brenner et al., 1994; Hogarty et al., 2004; Liberman, 2002; Spaulding et al., 1999; Wykes, 2004). In one of these programs, it appeared that modules in the UCLA Social & Independent Living Skills program, when used without cognitive remediation, was effective in improving cognitive functions. If this was replicated, it would indicate that the behavioral principles inherent in skills training were capable of cognitive remediation from the “macro” to “micro” level of instruction (Spaulding et al., 1999). Indirect support for the direction of change from the development of social skills to improved cognitive functioning comes from a study that revealed knowledge of grocery shopping skills was the variable that mediated cognition and performance in real-life shopping (Brown et al., 2006).

Use of modules with older adults receiving geropsychiatric services

With the graying of the population, growing numbers of older adults with schizophrenia are in need of treatment. One of the priorities for such patients is achieving clinical stability through reliable management of their medications. A controlled study of the Medication Management module was conducted with a mixed group of severely mentally ill inpatients at the Greater Los Angeles Veterans Health Care Center. Knowledge of proper use of medications significantly increased in the group of patients who received the modular training but not in the control group that received educational classes on medication but without the structured learning activities inherent in the modules. Rates of adherence to medication at 6-month follow-ups after discharge from hospital were 62% for the participants in the module vs. 38% in those who received psycho-educational classes (Wilkins et al., 1995).

Procedures from the UCLA modules have been adapted by clinical and research teams designing treatments for elderly patients with severe mental illness at the University of California at San Diego and the New Hampshire-Dartmouth Psychiatric Research Center (Bartels et al., 2002, 2004; Granholm et al., 2005; McQuaid et al., 2000). In accord with the multiple problems and deficits of this older population – psychiatric, physical, medical,

social and cognitive – the programs combined cognitive therapy, supportive care, nursing and medical interventions as well as social skills training. Patients who participated in the programs that included skills training showed greater improvements in skills, social functioning, independent living skills, and insight into their illness.

Dissemination and adoption sponsored by state departments of mental health

Because administrative support from top management in any mental health agency or facility is of paramount importance for the success of a dissemination effort, it is not surprising that the modules have been most effectively disseminated and implanted when our group has been invited by a state system of mental health to provide consultation and training of staff in one or more of their hospitals. This has happened numerous times during the past two decades with requests for technical assistance coming from Texas, Hawaii, South Carolina, Alaska, Connecticut, Wyoming, New Mexico, Nevada, Oregon, Colorado and Virginia. Space limitation precludes detailed descriptions of these major dissemination activities, but summaries are provided of those that offer heuristic principles for dissemination of evidence-based treatments.

The dissemination process unfolds in three phases.

- Phase I: site visit for 2–4 days by one rehabilitation specialist from the UCLA rehabilitation program which includes observation of psychosocial treatments, interviews with all stakeholders, review of medical records and policy and procedure memoranda. Feedback is given to the state agency and the hospital or facility visited with recommendations that a more comprehensive evaluation be performed using the UCLA needs assessment protocol.
- Phase II: site visit for 4–5 days by 3–4 rehabilitation specialists from the UCLA rehabilitation program during which time information is gathered using the needs assessment protocol. The protocol is used for assessing the current status of the hospital's quality of rehabilitation services. This protocol has five sections, each of which includes direct observation of rehabilitation activities, reviews of medical records of sampled patients, interviews with administrators and clinicians, participation in clinical team meetings and interviews with patients. The five sections are:
Treatment Planning and Linkages between Hospital and Community;
Quality of Psychosocial Treatment Services,
Psychiatric Assessment and Treatment with Linkages to Psychosocial Treatment,
Administrative and Organizational Support for Quality Rehabilitation Community Support Mechanisms.
As a result of the Phase II evaluation, feedback is given to the state agency and hospital staff with recommendations for improving psychosocial rehabilitation. If negotiation on the recommendations reaches a consensus between the state and the UCLA rehabilitation group, the process moves to:
- Phase III: Full fledged training of staff at the various facilities requesting improved psychosocial rehabilitation. This customarily requires 6–10 specialists from UCLA for numerous visits over the course of several months to as long as two years.

State agencies in Texas, Hawaii and South Carolina contacted the UCLA rehabilitation team when they were under federal mandate to improve their psychosocial treatment services. The Department of Justice had obtained court enforcement to remedy violations to the “right to treatment” based on inadequate amount and quality of psychosocial services.

Understandably, having a court-appointed monitor to periodically review the quality of the hospitals' psychosocial services served as a major motivation for the state agency and hospitals involved to actively participate in a collaborative venture aimed at improving their services with the UCLA rehabilitation team. In the six state hospitals of Texas, wide-scale adoption of the modules from the UCLA Social & Independent Living Skills Program was achieved over a two-year period.

The training provided by UCLA specialists was competency-based; in other words, training continued until all staff assigned to perform psychosocial rehabilitation were trained to high levels of fidelity to the module procedures. The fidelity scale had two parts: (1) teaching skills that embodied the full range of behavioral learning principles, and (2) adherence to the learning activities of the modules that were the means by which the skills of each module were taught. The modules were still running at each hospital two years later when the federal court released the Department of Health & Mental Health form.

At the South Carolina State Hospital, a rehabilitation specialist was designated as the "local champion", serving as hospital liaison to the UCLA rehabilitation team. In turn, she organized an interdisciplinary liaison team of staff members who were eager to learn new methods of rehabilitation. As the dissemination process unfolded, this team became the driving force in making the needed changes in hospital services (Smith, 1998). During the initial training of the hospital staff, she and her team arranged for a demonstration of social skills training by the UCLA training team in the hospital auditorium with the entire hospital staff in attendance. Unbeknownst to the UCLA consultants, the South Carolina staff selected the most regressed and thought disordered patients for the demonstration. While there was a lot a sweat left on the floor, the UCLA trainers successfully demonstrated that each of the patients were able to make discernable changes in their social behaviors right then and there. This example of demonstrating competence with the lowest functioning patients gained the UCLA trainers considerable credibility and has been an earmark of the UCLA training process ever since. As a condition of completing the training, the UCLA team persuaded the hospital director to appoint the "internal champion" to a newly developed position as Director of Psychosocial Rehabilitation. This was altogether fitting since she was a magnificent psychosocial therapist and became an extremely effective trainer of trainers. The UCLA team negotiated with the hospital director and state agency to create a new category of staff: rehabilitation technician. While this did not require a large increase in salary, it did give considerable status to the nursing aides who were able to qualify for the new position by passing a competency test based on the fidelity scale for measuring quality use of the modules. By the end of the first year of implementation, 48 nursing aides had been promoted to rehabilitation technicians. Their certification had to be renewed each year by a competency test, using the fidelity scale for the modules.

This made an enormous difference in the hospital since it raised the level of services by nursing aides from the custodial criteria of supervision, security and safety to function as active treatment and rehabilitation specialists. Within six months of the initial training by the UCLA team, the head of rehabilitation and her rehabilitation team had created new modules themselves that were relevant to their patients' needs. The chief of rehabilitation and her staff participated in training of more than 500 staff members from other hospitals and community mental health centers. This "second generation training" was carried out in four-day workshops for clinicians and two-day workshops for supervisors. staff at other hospitals and community programs in the use of the modules. This example of "second generation" dissemination adds further social validation to the stature of the modules.

The two-year training and consultation program at the Hawaii State Hospital focused on how to connect the psychosocial programs instituted at the hospital with community mental health centers on each of the islands. This consultation ended with the court-appointed monitor releasing the hospital from its mandate because services had become exemplary. The community mental health programs of the state continued in training to acquire the required professional abilities and treatment programs to meet quality of care standards set by the monitor.

Dissemination activities were not always successful. In Alaska, the state's psychiatric society opposed the introduction of a psychosocial treatment philosophy that would compete with the ensconced medical model. In addition, after the Commissioner of the state's Department of Mental Health and Mental Retardation learned how to recover additional Medicaid funds from the federal government by modest changes in the recording of psychosocial services, he lost interest in further efforts to improve the quality of those services.

At the West Los Angeles Veterans Healthcare Center, the head of the nursing service requested training in the modules for all nursing level of care in the eight psychiatric inpatient units at the hospital. Video equipment was purchased for each unit so the nursing staff could implement the modules. Despite being urged by the UCLA consultation team to introduce new performance standards and annual performance evaluations for nursing staff that would specifically designate providing social skills training as an element in evaluating nursing staff performance, this was not implemented. As might be expected, after a brief "honeymoon" period following the training, nursing staff returned to their more reactive, custodial role: writing progress notes, passing medications, charting observations and critical events, providing supervision and safety, and escorting patients to labs, Xray, cigarette breaks and mealtimes.

Cross cultural dissemination: adoption of modules in foreign countries

Perhaps the greatest challenge to dissemination of evidence-based treatments is presented by foreign countries that do not share the same language, culture or professional system of care of the nation where the treatment was devised. Overseas dissemination of the UCLA modules for skills training happened in three modes: (1) through the interest of visiting research and clinical fellows from other countries who spent time at UCLA during which time they became familiar with the modules; (2) by my visits to other countries where I was invited to give lectures and workshops to acquaint mental health professionals with psychiatric rehabilitation; and (3) through foreign colleagues obtaining information through publications and familiarity with the procedures after ordering the modules from the UCLA program.

In the late 1980s and early 1990s, psychiatrists, psychologists and a psychiatric nurse from French and German speaking countries who had spent six months to one year at the UCLA Clinical Research Center as visiting fellows, were the first to translate, culturally adapt and conduct field trials and efficacy studies of the modules in foreign countries (Chambon & Marie-Cardine, 1998; Cormier et al., 1995; Favrod et al., 1998; Leclerc et al., 2000; Roder et al., 2001; Schaub & Liberman, 1999; Schaub et al., 1998). While at UCLA, they had first hand experience in using the modules, becoming vigorous champions of their utility. Subsequent visiting fellows from France, Korea, India, Turkey, Peru, Italy, Spain, Norway, Finland and the Republic of Slovakia returned to their countries, secured funding for translation, production, research and dissemination of the modules in their countries (Nilsson et al., 1998; Sotillo et al., 1998; Yildiz et al., 2002).

The most thorough foreign translation and adoption of the modules, however, came about as a result of my visiting certain countries and offering lectures and practical workshops on psychiatric rehabilitation. These included Japan, China, The Netherlands, Poland (Meder et al., 1998), Bulgaria (Butorin & Liberman, 1998), Sweden and Denmark. Still other countries have adopted, translated and culturally adapted the module with only written communications: Algeria, Australia, Russia, Ukraine, Romania, Greece and the Czech Republic. As shown in Figure 3, the modules are now translated into 23 languages and in use in many countries around the world. Space constraints limits a description of my introductory activities, adoption with cultural adaptation and results of the dissemination in three countries: Japan, China and The Netherlands.

Adoption of modules in Japan

In 1988, one month was spent as a Visiting Professor at the University of Tokyo School of Medicine. At that time, psychiatric rehabilitation was unknown in Japan where the majority of psychiatric patients with serious disorders were spending years and even decades in hospitals.

Consistent with the avidity with which Japanese culture admires, imitates and then improves upon American innovations in manufacturing, the Japanese who attended my lectures and workshops in Tokyo and other cities eagerly embraced the ideology of rehabilitation, skills training and community-based treatment. Within two years, they had translated three of my books and collaborated with a Tokyo publisher to translate, produce and distribute all of the UCLA modules throughout Japan.

In the mid-1990s leaders of Japanese academic psychiatry who had participated in the 1988 workshops and lectures, organized an multi-disciplinary Japanese Association for Social Skills Training. The Association rapidly gained members, held two national meetings each year for research and clinical training respectively, and offered regional programs to train practitioners in the use of skills training and the modules. The Association used a criterion-based competency test to certify members in social skills training and successfully advocated for recognition of social skills training as a reimbursable modality through their national health insurance. In just 10 years, the number of mental health hospitals and outpatient clinics that were employing social skills training increased from nil to over 250 (Ikebuchi, Anzai & Niwa, 1998).

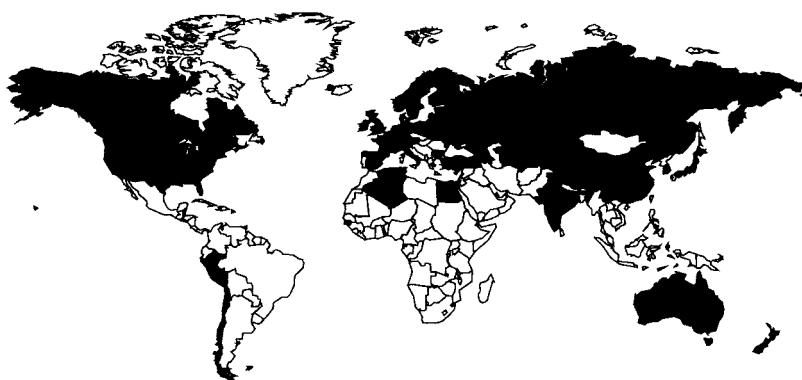


Figure 3. Geographic distribution of foreign translations and utilization of modules from the UCLA Social & Independent Living Skills Program.

Cultural adaptation

Modifications of the criteria for social competence as well as scenarios for the videotape demonstrations were essential for effective use of skills training modules in Japan. Because intermittent aversion of one's gaze during conversational interactions is the norm in Japan, eye contact as a non-verbal element of social skills has been modified in training sessions. Japanese patients are taught to periodically look at their conversational partner but to shift their gaze to their partner's forehead, ears or chin. This avoids the embarrassment that may be associated with sustained eye contact. In contrast with the American approach to initiating conversations in the Basic Conversation Skills module, Japanese patients do not introduce themselves to strangers by name nor disclose their occupation. Instead, conversational openers are mundane, impersonal topics with self-disclosure reserved for close friends. Japanese social etiquette does not include inviting friends or co-workers into one's home so the scenario of a house party in the video from the Basic Conversation Skills module is changed to socializing in a coffee shop, club or restaurant.

A randomized, controlled trial of the Community Re-Entry module at the largest psychiatric hospital in Tokyo revealed substantial increases in the patients' skills learned in the module vs. no change in those skills for the control group (Anzai et al., 2002). Over 70% of the patients who participated in the module were discharged from hospital vs. 20% in the control group. Module participants showed almost a two-fold improvement in scores on a community adjustment scale in contrast with no significant change for the controls. More recent research in Japan has demonstrated the empowering effects of the Medication Management module on patients who previously took very passive and dependent roles *vis-à-vis* their psychiatrists. In one study from Fukushima Prefecture, patients who completed this module, in contrast to those in a standard treatment condition, reported being better informed and able to participate more actively in medication decisions and coping with side effects. At the present time, leaders of the Japanese Association of Social Skills Training have initiated a national effectiveness project in which they are training hundreds of practitioners to implement a Discharge Preparation Program that was adapted from the Community Re-Entry module. This project is one element in a country-wide initiative in Japan to shift the care of the mentally disabled from hospitals to community programs.

China and Hong Kong

In 1992, I offered a two-week, intensive seminar on psychiatric rehabilitation to 56 Chinese psychiatrists from all provinces of the country. While the learning style of the psychiatrists attending the seminar was disconcertingly passive, the follow-up outcomes of my teaching efforts was anything but passive. My hosts at the Huilongguan Hospital in Beijing requested permission to translate the Medication and Symptom Management modules and set to work adapting them to Chinese culture.

Cultural adaptation

In two of the skill areas of the American version of the Medication Management module, education and problem-solving exercises related to side effects of medications included discussions between patient and physician on sexual dysfunctions. In China, however, unmarried patients are reluctant to answer questions or discuss sexual topics; therefore the

focus on the Chinese translation of this module was shifted to extra-pyramidal and metabolic side effects. In addition, many of patients are illiterate and required assistance from staff members or peers in reading and understanding information as well as in tracking their adherence and responses to medication on their Medication Self-Assessment Sheets. In the skill area on coping with persistent symptoms from the Symptom Management Module, the Chinese included acupuncture, yoga and tai chi along with other forms of traditional Chinese medicine as means for dealing with stress-related exacerbation of symptoms.

In China, surnames are used only in professional settings, not first and second names. Sessions were scheduled for 90–120 minutes but with a lengthy tea break at the midway point. Because over 5% of patients return to live with their families after discharge from hospital, the discussion of planning aftercare residential care was changed from board-and-care homes to family homes. Warm-up exercises were introduced at the start of each module training session. These included singing songs, individuals giving brief presentations on various topics and telling jokes.

Several steps were taken to adapt the Basic Conversation Skills module for use by Chinese professionals and patients (Lak & Tsang, 2004). In Chinese there is no word that conveys the meaning of “Go Signals” which, in the American version, refers to sensitivity to the facial expression, eye contact and personal space exhibited by a person that indicates an interest in engaging in a conversation. In the Chinese translation of this module, the term, “signals of communication” was used. Like in Japan, the scenario that serves as the context for starting conversations had to be changed from a party in a friend’s home to a restaurant where the focus was on eating dim sum and drinking tea. Another example of a cultural shift was the choice of topics for conversational openers. In Hong Kong and mainland China, appropriate topics for starting conversations are not the weather or how the other person is feeling, but traffic conditions, crowds on the street and the cost of consumer goods.

Research on modules

Several randomized controlled trials of the modules have been conducted in Beijing and Hong Kong. One study in Beijing revealed significant benefits to patients assigned to the Medication Management module in skills learned, continued treatment after discharge from hospital, better compliance with medication and reduced relapse rates (Xu et al., 1999). A randomized, controlled trial of the Medication Management and Symptom Management modules at the An Ding Hospital and Beijing Capital Medical School resulted in significant advantages to the patients who participated in the modules. Social functioning, general psychopathology and psychotic symptoms improved; relapse rates were 10% for the patients randomized to the modules vs. 69% for the treatment as usual controls. Competitive employment rates were 41% for those who had module training vs. 13% for the controls (Weng et al., 2005).

The Community Re-Entry module was evaluated in a controlled study with 93 patients from the Beijing An Ding Hospital. Ratings made at the one-year follow-up revealed that patients participating in the module had significantly greater reductions of symptoms on the PANSS, improvement on a rehabilitation status scale, increase in employment and half the relapse rates of those randomly assigned to the hospital’s standard rehabilitation program (Xiang et al., 2004). In Hong Kong, a work-related module adapted from the UCLA format was found to result in 47% employed vs. 2.4% in the control group (Tsang & Pearson, 2001).

The Netherlands

In the process of establishing a national system of community mental health centers and reducing the size of their psychiatric hospitals, the national psychiatric society of The Netherlands invited me to give lectures and intensive training workshops at various sites around that country. Subsequently, a non-profit foundation was established to translate, field test and systematically disseminate six of the UCLA modules throughout the country (Boersma et al., 2001). The organization, Stichting Liberman Modules, was co-sponsored by several medical schools, hospitals and community mental health systems. Over the course of eight years, the foundation and the UCLA rehabilitation group had frequent communication, reciprocal visits and collaboration in the dissemination plan such as methods for training the trainers. Little or no cultural adaptation was necessary in adapting the modules to the professional and social milieu of Holland. This is not surprising, given the similarities in the Western European and American cultures. In fact, because of the more permissive and accepting norms in Holland toward sexuality, the Dutch foundation was able to more rapidly disseminate the skill areas on safe and satisfying sex than the UCLA group was able to accomplish in the United States.

The dissemination team from the foundation developed a competency-based approach to their dissemination which included many of the procedures used by the UCLA rehabilitation group. For example, contracts were made with facilities as part of the planning of a training workshop that instigated commitments on the part of the administration to revise their clinical programs to permit time and priority for implementation of the modules. The participants in the workshops also agreed to take competency tests before and after the workshop and to report periodically on their use and experiences with the modules. By 2006, clinicians from more than 100 hospitals and community clinics had been trained in the use of the modules. In addition, the trainers from the Stichting Liberman Modules had begun to train staff from programs responsible for the habilitation of the mentally retarded. In that application, it was necessary to simplify the Participant's Workbooks, using larger print, pictures and designs to symbolize skills and a vocabulary consistent with this populations' subnormal intelligence.

Conclusions

Dissemination of evidence-based treatments is now more likely than ever before. Concurrent constraints on budgets and pressures from stakeholders for high quality services have induced state and local mental health agencies to get "more bang for the buck". For the first time in the history of psychiatry, evidence-based services are the norm for standards of quality care. Information on empirically validated treatments have diffused into the awareness of consumers and advocacy organizations. Already, the NAMI and its state affiliates have succeeded in getting assertive community treatment accepted as a priority by many of the state mental health authorities. The view that substantial numbers of persons with severe mental disorders can recover from their illnesses, at least partially if not fully able to live a normal life, is also providing a push from below to practitioners, agencies and state and local mental health authorities to adopt the most effective and acceptable treatments.

There is a growing realization within the field of psychiatry that medications are inadequate to achieve the outcomes that are now on the collective "radar screen" of practitioners, patients and family members. By the mid-1980s it was abundantly clear that antipsychotic medications alone were not able to meet the needs of persons with

schizophrenia for improved psychosocial functioning. While drug therapy had significant efficacy, as compared with placebo, for reducing psychotic symptoms and delaying relapse, it had little or not impact on patients' self-care, social and vocational abilities. Mainstream psychiatry came to the realization that medications, however effective in the treatment of psychopathology, could not teach patients skills that they had never learned or that had eroded over many years of chronicity, institutionalism or disuse.

Pharmaceutical companies have had the dissemination field to themselves for over 50 years. Their use of personal contacts, advertisement technology for dispersion of information and rewards for psychiatrists to get their products adopted are now becoming feasible for innovators of psychosocial treatments. Instead of direct advertisements in the media to promote a new medication, psychosocial specialists are writing in magazines and newsletters read by consumers and family members and lecturing at local, state and national meetings sponsored by the National Alliance of Mental Illness and similar advocacy organizations.

While unable to approximate the enormously expensive and dedicated detail salespersons utilized by the pharmaceutical companies, those who produce evidence-based psychosocial programs can disseminate their clinical products through social networking. Personal influence and direct contact has always been a critical way for knowledge and technology transfer. Innovators with a determination to disseminate their evidence-based treatments can take advantage of the manifold opportunities to communicate with colleagues through email, phone and personal visits as well as at workshops and conferences. This has been the primary means of disseminating the modules of the UCLA Program for Training Social & Independent Living Skills. During the past 20 years, more than 500 modules have been distributed each year with most of them in active use in hospital and community-based mental health facilities.

Recent success in a national demonstration project in six states and the District of Columbia to foster the adoption of supported employment provides a template for other innovators to galvanize public-private-academic collaborations to bring about large-scale improvements in mental health systems (Drake et al., 2006). However, stimulating dissemination and adoption of evidence-based innovations is only the starting point for improving the quality of services in mental health facilities. Once implemented, innovations will not be sustained on their own. Just as social skills taught to patients will erode unless there are opportunities, encouragement and reinforcement for their continued use and improvement, so will innovations atrophy over time unless systems of care build in methods for encouraging and reinforcing their use. Regression to the mean and entropy trump innovations every time. Dissemination and adoption of evidence based treatments will remain a pipe dream unless practitioners and researchers with an investment in seeing new and improved treatments being implemented master the challenges of *maintenance and continuing quality improvement* and other mechanisms within the technology transfer, administrative, managerial and human resource fields.

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