DEPARTMENT OF VETERANS AFFAIRS: MOVING TOWARDS TELEHEALTH

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April 27, 2005

A Master’s Paper submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Public Health in the School of Public Health, Public Health Leadership Program

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ABSTRACT

As the Department of Veterans Affairs has developed over time, its healthcare model has evolved from a largely inpatient treatment setting in large regional hospitals to providing outpatient community-based care closer to the veteran’s home. The Veterans Health Administration (VHA) has taken the lead in the development of data based programs using electronic information and communications technology to ensure excellence in healthcare services delivery. The growing number of telehealth programs in the VHA is the result of administrative and clinical collaboration to develop pathways to separate distance from those receiving services and those providing services. The VHA has long used available public health “best practice” modalities in providing leadership and enthusiasm to coordinate the development of new programs to ensure the veteran is not denied treatment because of geographic barriers. Many of the current telehealth programs are based on the guidelines of assertive case management and intensive case management existing in VA mental health care. Additional research and information has been garnered from other countries that provide services to large rural populations and from the extensive research done in prison-based psychiatry. How to deliver these services within clinical and ethical guidelines, the issues of informed consent and confidentiality, and the assurance of continuing patient-clinician alliance have posed dilemmas now being addressed by professional mental health organizations.
History

The Veterans Health Administration is the United States’ largest integrated health system. Once disparaged as a bureaucracy proving mediocre care, the Department of Veterans Affairs (VA) reinvented itself during the past decade through a policy shift mandating structural and organizational change (Beers, et al., 2000). The organizational changes included rationalization, resource allocation, explicit management, and accountability for quality and value. An information infrastructure was created that protected patients with pharmacological and medical chart redundancy that also supported the needs of clinicians and administrators as well as patients. As Rowitz states in *Public Health Leadership* (2001), “public health infrastructure must be strengthened by utilizing the core functions of public health; its essential services being a guide to the changes that must occur. Leaders must not only rely on the current assurance models but must implement new assurance models built on integrated systems of service and program delivery.” Today the VA is recognized for clinical informatics and performance improvement as it cares for more patients with proportionally fewer resources, and sets national benchmarks in patient satisfaction. Although predating the Institute of Medicine’s (IOM) recent recommendations for a more ideal health system (IOM, 2001), the VA’s improvement strategies were remarkably similar to those enunciated in the IOM report providing increasing evidence for the utility of the recommendations in closing the “quality chasm.” Through adoption of evidenced-based practices, proactive approaches to patient safety and prevention, the use of advanced technologies in a fully deployed electronic health record, bar-coded medication administration, and links to all VA
systems nationwide including Department of Defense records, the VA’s success in improving quality, safety, and value have allowed it to emerge as a leader in healthcare.

Although health and social support for aged or disabled soldiers has existed in the United States since colonial times, the spectrum of national programs for American veterans was consolidated with the establishment of the Veterans Administration in 1930. Resources for social services expanded rapidly after World War II with the Servicemen’s Readjustment Act of 1944. A hospital system that specialized in meeting the needs of these one million returning troops who had experienced physical and emotional trauma expanded and evolved. The Veterans Administration was elevated to Cabinet status and became the Department of Veterans Affairs in 1989, with financial support programs such as pensions administered under the auspices of the Veterans Benefit Administration (VBA) while health services were consolidated in the Veterans Health Administration (VHA). The Secretary of Veterans Affairs directs the activities of the department, and the Under Secretary for Health serves as the chief executive officer of VHA. Until the mid-1990’s, the VA operated largely as a hospital system providing general medical and surgical services, specialized in mental health and spinal cord injury, and long-term care through directly operated or indirectly supported facilities. Medical centers operated relatively independent of each other, even competitively duplicating services. Antiquated laws required virtually all healthcare services to be provided in hospitals, counter to the movement of care into the ambulatory environment. In 1996, the Veterans Health care Eligibility Reform Act enabled the system to be restructured from a hospital system to a health care system. This movement to outpatient services was directed by then Under Secretary for Health, Kenneth W. Kizer, MD (VHA Directive 10-94-100, 1994). The
structural changes were predicated on the assumption that providing the most effective, efficient care required coordination among facilities and synergy of resources, including that care should be provided in the most appropriate environments, notably in a community-based setting closer to their homes.

VHA uses electronic information technology and communications technology to ensure excellence in the health care it delivers to the nation’s veterans. The term “telehealth” applies to the use of these technologies to provide education and hospital administration in circumstances where distance separates those receiving services and those providing services (VHA Clinical Guidelines, 2003). The growing number of telemedicine programs in the VHA and the resultant care these provide to veterans has raised the profile of telemedicine both inside and outside the VHA. As a result expected in a geographically diverse organization, there is considerable variation in how telemedicine is used. The leadership and enthusiasm of creative individuals from a wide range of professional backgrounds has provided a common bond to link telemedicine coordinators, project managers, computer analysts and programmers, clinicians and general managers to improve the care of this nation’s veterans and to help ensure that they are not denied healthcare because of physical barriers of geography, distance, or climatic conditions. The success of telemedicine in the VHA brings specific challenges. Currently, one of the major challenges is how to transition projects to become mainstream in sustainable health care services upon which veterans can depend on for the long-term (Kolodner, 1997). Beyond moving the focus of care from its present localization at one hospital site and encompassing a broader range of providers in various hospitals and Community Based Outpatient Clinics (CBOC’s), there are the perplexities of people
networking such as how to schedule appointments for the consultations and the network adaptation and connectiveness itself. Legal and regulatory issues and credentialing and privileging also come into play. In its hospitals, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) credentials some licensed independent practitioners of telemedicine. At a recent meeting, JCAHO’s standards and survey procedures committee approved revisions to the hospital telemedicine standards. The revised standards allow credentialing and privileging by proxy, and reduce the credentialing and privileging burden for originating sites such as hospitals, especially where there are large numbers of licensed independent practitioners providing telemedicine services (Field, 1996). Still, JCAHO does not accredit the majority of telemedicine services, including interpretive services such as those provided by radiologists and pathologists, or consultative services such as physician second opinions or remote treatment assistance.

Because telemedicine is a new way of delivering health care, we often find there are no “off-the-shelf” solutions available for these challenges. The biggest current challenge is to create the structures that are needed to develop telemedicine networks at the hospital, the larger service areas, Veterans Integrated Service Networks (VISN’s), and ultimately at the national level. The VHA is in a unique position to create the first truly national telemedicine network in the US. The mandate is to achieve reliability and consistency in a system that is patient-centered, safe, and cost effective.

Changes in VA Mental Health Care

The closing decade of the twentieth century confronted the Department of Veterans Affairs and other public mental health care systems with the significant
challenge of providing appropriate, humane, and efficient care to persons with serious mental illness, chronic substance abuse dependency, and severe post-traumatic stress disorder (PTSD). Despite the closure of 40,000 psychiatric hospital beds between 1957 and 1988, the VA relied heavily on inpatient treatment through the 1990’s, spending over 70% of its mental health budget on costly hospital care as recently as fiscal year 1996 (Rosenchek & Neale, 1998). There was fundamental reorganization of its structure and services in pursuit of a more comprehensive, integrated healthcare system, with enhanced priorities of customer satisfaction, cost efficiency, accountability, and new technology in service delivery. Changes have included the introduction of data base approaches to care and management, decentralization of VA administrative and budget authority, integrated service networks, reallocation of healthcare resources, and a shift of focus from inpatient to outpatient modes of service delivery (Kizer, 1995). The shift from inpatient to outpatient health care in the VA would be expected to have the greatest impact on those with the most severely disabling mental illnesses, veterans who have traditionally relied on inpatient hospital treatment and many times enduring long-term hospitalization is a less than clinically-effective setting. People with serious mental illness, often exacerbated by chronic alcoholism or drug addiction, tend to be the most vulnerable of our populations commonly experiencing homelessness, social isolation and vocational dysfunction. The VA, especially driven by the large social work service line, has emphasized our societal core values that urge us not to neglect our most vulnerable citizens while providing services based upon respect and dignity of the individual instead of promoting a “shame-based” treatment approach with low quality mental health services.
**Telehealth Integration**

To integrate telehealth into the mainstream health care environment, the VA had to rely on previous research in rural or isolated environments to begin the telehealth service delivery process. The prison population has long been a model for this type of care having served a large severely mentally ill population. This evidenced-based research was integrated with assertive case management and intensive case management modalities to form a working model. The therapeutic or working alliance in patient-clinician efficacy provided clinical guidelines for the treatment model.
Development and Evaluation of Telepsychiatry and Prisoner Treatment

Telemedicine, telehealth, or telepsychiatry is the use of interactive state-of-the-art telecommunications systems to deliver, at a distance, medical or mental health services which would otherwise be unavailable, inaccessible or difficult to attain. The practice of telemedicine actually has a thirty-year history, primarily focused on tele-radiology, but including telepsychiatry and specialty medical consultations. Within the past five years, with the rapid advancement of computer technology and improvements in data transmission networks utilizing enhanced telephone lines, an explosion in applications in telemedicine is occurring nationally and worldwide (NCQA, 2004). The background for the development of this field in the VA Healthcare System involves using advanced management and leadership skills developed in many other aspects of care and other innovative projects in healthcare. There are so many aspects involved in telemedicine that just having technical skills is not enough. To get the big picture, you need to know about more than just information technology. Strong leadership skills are very important. An interest in technology, customer service skills, good patient relations, and the ability to organize multiple projects are the qualities that count. (Lomas, 2003) An organization and the individual elected to lead the project have to develop a good business plan that makes economical sense and has clinical relevance.

Much of the preliminary research and evidenced-based outcome models were based on treating prisoners where the delivery of appropriate care was compromised by the rules, regulations and environment of the prison system. Recent reforms in prison healthcare that include private-public community partnerships have had significant implications for the future organization and quality of healthcare delivered to prisoners.
However, at the present time, the vast majority of prisoners with mental health problems receive a standard of care far below that afforded to patients in the community or hospital. Serious mental health problems are common among prisoners and psychiatric comorbidity is the norm (Singleton et al, 1998). Many prisoners have complex mental health needs, but more often than not, these remain unaddressed. Because prisons tend to be remote, security-conscious institutions with highly restrictive regimes, access to specialty healthcare services is rare, especially to specific mental health services. In countries such as the US and Australia where geographical isolation can create similar problems of accessibility, telepsychiatry services have been developed to reduce inequality in service delivery to remote, rural areas. America’s prisons and large city jails are now its largest mental hospitals (NMHA, 2003). It is in the truest nature of the National Mental Health Association (NMHA) to support effective, accessible mental health treatment for all prisoners in correctional facilities that need it. Research conducted by the Institute of Psychiatry in London found that over one-third of sentenced male prisoners and almost two-thirds of unconvicted prisoners have a mental illness. A survey of psychiatric morbidity in prisons published by the Office of National Statistics indicates an even higher prevalence of mental illness among prisoners, presenting that 90% of all prisoners have a diagnosable mental health problem, a substance abuse problem, or both. Fazel & Danesh (2002) indicate that one in seven prisoners has a psychotic illness or major depression, and about one in two male prisoners and one in five female prisoners have an antisocial personality disorder. The mental health needs of the prison population are well defined; however, the identified need remains unmet. As telepsychiatry provides an inroad for the VA system to serve large rural, previously
unserved or underserved, the prison studies in the US, Great Britain, and Australia have provided rich data for the institutional management of telehealth according to clinical guidelines as well as in defining difficult technical equipment and operational needs.

Case Management and Assertive Community Treatment (ACT)

An early attempt to systematically match levels of care to levels of need occurred in an intensive case management program that operated in Denver in the late 1980s. The program, which has been described in early VA guidelines and directives, was aimed at consumers designated as most in need (Kizer, 1995). Originally, this was a program was staffed by case managers with bachelor’s degrees. Case managers were split into two teams each reporting to a master's-level supervisor, but the model emphasized individual rather than team responsibility. An on-staff psychiatrist provided consultation but consumers were never seen in the program's office. The program provided coverage 24 hours a day, seven days a week and incorporated both assertive case management and service brokerage to a community mental health center for ongoing mental health care. The program was also notable for its use of the Denver Acuity Scale as a method for determining the intensity of case management needed (US Department of Commerce, 1987). Measures of clinical status at program entry indicate levels of client symptoms and functional impairment commensurate with extensive hospitalization and long-term mental illness. More than half of the early veteran’s intensive case management enrollees reported low level instrumental functioning on at least one activity of daily life. These case management programs emphasized continuity, frequency, intensity, and community-based services for veterans with serious and persistent mental illnesses who have not
responded well to traditional modes of treatment. With respect to continuity, the case management programs were expected to serve as a fixed point of clinical responsibility for their veterans, offering services for at least one year and providing follow up services for as long as clinically necessary.

**DENVER ACUITY SCALE**

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<tr>
<th>Need dimension</th>
<th>Acuteness level</th>
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<tr>
<td>Treatment participation</td>
<td>As scheduled for more than three months</td>
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<tr>
<td>Medication compliance</td>
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<td>Housing</td>
<td>Stable housing for more than three months</td>
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<td>Basic needs</td>
<td>Needs met for more than three months</td>
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<td>Benefits and income stream</td>
<td>Has income and has managed it for more than three months</td>
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<tr>
<td>Substance abuse</td>
<td>None apparent for more than three months</td>
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<tr>
<td>Danger to self or others</td>
<td>None apparent for more than three months</td>
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<td>Crisis incidents</td>
<td>Limited or appropriately handled for more than three months</td>
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For several decades mental health clinicians and researchers have been dismayed by the adverse consequences of State Hospital closures and have sought to develop humane, health-promoting alternatives to long-term hospital care for severely mentally ill persons in community settings. Case management services have been widely developed to provide and compliment a preferred alternative to fragmented outpatient care. In this
approach, a specialist who is usually a social worker takes responsibility for facilitating access to and delivery of a full range of services needed by persons with severe mental illness complicated by chronic substance abuse. The "broker model" of case management has been used for a variety of purposes ranging from cost cutting to improving clinical outcomes, and has only limited research support for its effectiveness. Assertive Community Treatment (ACT) model of integrated, intensive, and comprehensive services provided by a team of skilled clinical case managers in community settings, offers a more supportive approach for individuals with serious mental illness that has been carefully developed and evaluated with outcome-based research. Experimental studies published over 20 years have reported that concentrating treatment resources in community-based ACT teams or intensive case management programs can result in improved clinical status of the severely mentally ill and addicted patients at no additional cost. A Cochrane Review concluded that ACT clients were more likely to stay in treatment and out of the hospital, to live more independently, and to be more satisfied with their care that clients who received standard community or case management services (Marshall & Lockwood, 1998). The VA initiated a demonstration program of intensive case management teams based on ACT principles at ten northeastern VA medical centers in 1987. VA's adaptation of assertive community treatment became known as Intensive Psychiatric Community Care (IPCC) and a rigorous experimental study of this effort demonstrated the cost-effectiveness and efficacy of this type of program in VA (Veterans Health Care, 1983). The IPCC model, while developed for the most troubled, high hospital users, was based on flexible operation guidelines that may be applicable to other patient populations and other models of care including what came to be known as telehealth.
Program Objectives and Principles in Outpatient Care

IPCC services are delivered by integrated, multidisciplinary teams and are based on the Substance Abuse Mental Health Services Administration (SAMHSA) ACT standards (SAMHSA, 1998).

- Provide intensive, flexible community support
- Improve health status (reduce psychiatric symptoms & substance abuse)
- Reduce psychiatric inpatient hospital use and dependency
- Improve community adjustment, functioning and quality of life
- Enhance satisfaction with services
- Reduce treatment costs

To accomplish these objectives, IPCC teams adhere to four core treatment elements

- Intensity of contact. High intensity of care primarily through home and community visits, with low caseloads allowing rapid attention to crisis and development of community skills to prevent crisis in this exceptionally vulnerable population.

- Flexibility and Community Orientation. Flexibility and community orientation with most services provided in community settings and involving integration with natural support systems whenever possible.

- Rehabilitation Focus. Focus on rehabilitation through practical problem solving, crisis resolution, adaptive skill building, and transition to self-care and independent living where possible.

- Continuity and Responsibility. Identification of the team as a fixed point of clinical responsibility providing continuity of care for each veteran, wherever the
veteran happens to be, for at least one year, with subsequent care subject to review of continuing need of intensive services.

**Mission and Vision of Public Health**

Leaders should be oriented towards the future and help create the vision that drives agency agenda. Both the agency's mission and current vision must reflect each other. "An organization's mission defines its purpose—its reason for existing" (Rowitz, 2001). A standard mission for a public health agency is the promotion of health and the prevention of disease. According to Wall, Solum, and Sober, a mission statement needs to answer four questions:

- The purpose of public health.
- How does the public health agency intend to coordinate its values and actions?
- Who makes up the constituents of the agency?
- How does the agency link the present with the future?

Pearce and David (1992) claim that a mission statement should address such things as the customer market, service-related issues, geographic concerns, *the level of technology*, the requirements of agency survival, personal concerns of the agency's leaders, the agency's survival, and the image of the agency in the community.

**The Therapeutic Alliance: Key to Effective Patient Outcome.**

A definite correlation exists in the psychotherapy literature between the therapeutic relationship and improved outcomes, with its potential as a prognostic indicator acknowledged. Attempts to apply the concept to patients outside the field of
psychotherapy have been slow, although expansion of the concept to other forms of change-inducing therapy is a current trend. Case management research demonstrates the importance of the therapeutic relationship and the ‘goodness-of-fit’ between case managers and therapist. This alliance has importance in the telehealth field where communication between patient and therapist is distant, but in real time. If the patient acknowledges the competence of the clinician and the appropriateness of the clinical setting, collaborative therapeutic interventions can be more easily transferred to the patient with an increased likelihood of a positive outcome (Howgego, et al., 2003). Case management provides the outpatient link for the patient where telemedicine allows therapeutic intervention to be made in context of the case management alliance or in a “stand-alone” outpatient setting.

The therapeutic relationship has its beginnings in the early 1900’s with Freud who used the term to describe the specialized relationship that existed between the “healer and the patient” (Horvath & Greenburg, 1989) Freud’s initial idea of the relationship revolved around the concept of positive transference as the mechanism by which a positive therapeutic alliance and then a successful therapeutic outcome could be facilitated. Subsequently, Freud broadened his early view of transference to include a contemporary reality-based perspective, from which Greenson first developed the concept of the Working Alliance. Empirical research into the relationship began in 1976 (Horvath & Greenberg, 1994) with early models still firmly embedded in the psychoanalytical framework and the concept of positive transference. The concept was further developed as a dynamic rather than a static process that was responsive to differing stages of
therapy. These historical foundations shaped the evolutionary development of the relationship and they have continued to have influence in contemporary settings.

Bordin’s model currently offers the greatest utility for the case management field. It is the most inclusive in terms of cross-disciplinary approaches, vital in the telemedicine setting. The application of the concept of the relationship outside of the psychotherapy and counseling dyad of professional therapist and patient brings new application that can be more widely used in adaptive outpatient therapeutic care. The alliance is not in itself represented as an intervention; rather it is the vehicle from which therapeutic gain may be realized. In this respect the model offers a synergistic view of the technical and process elements of the therapeutic interactions in case management as well as in telehealth where there is reconciliation in the form of an alliance. The major elements of the alliance are the collaborative endorsement of the intratherapy activities, an appreciation of the relevancy of the tasks leading to the therapeutic process, the mutual agreement and valuing of the outcomes of the therapy and the bonds that encompass the complex elements of the attachment process that occurs between the patient and the clinician such as trust, empathy, personal liking and valuing. These elements reflect both the generic problem-solving nature of case management and the relationship element central to the more clinically assertive case management models. These components of the alliance are inherently flexible within the differing theoretical orientation of the clinician. The model clearly has a theoretical foundation with a purpose-designed instrument set capable of measuring the constructs (Bordin, 1979). Studies of these types of alliances have drawn on a basic set of measurement tools related to the different theories. Discreet aspects
such as patient-clinician contributions to the alliance, patient participation in therapy and agreement on goal and tasks are then measured.

**Planning, Goal-Setting, and Implementation for Care Management**

The U.S. Department of Health and Human Services (1993) has identified eight emerging areas for competency development; informatics, communications, community-based participatory research, global health, ethics, genomics, cultural competency, and policy and law have provided a foundation in principles. There is recognition that competencies should always be tied to practice and that there are multiple pathways to achieving these competencies. Public health leaders at every level must place a high priority on systematic approaches to workforce development if the gains from the past and if the new investments in public health infrastructure are to make an impact in care. These advancements go beyond the mechanics of education and training, but the focus should be on attaining a sustainable, high-quality consortium of public health professionals that are acting on the basis of public trust and have the capability of producing results to transform public health. Cultural and ethical responsibility to the community as well as to the individual should be kept at the forefront of indicative action. The workforce composition should be monitored based on project needs. Individual competencies have to be monitored and translated into integrated training to ensure that public health professionals understand each other’s skills, thereby improving therapeutic coordination of services. Strategies should be developed to integrate the several existing federal, state, and local academic services. The Veterans Affairs network has an inclusive and distinctive network coordinated with local and regional universities as well as community colleges, but these resources tend to be duplicated where
practitioners are forced by state licensing boards to be trained in facility-based programs. Interactive learning credits are becoming more available as on-line educational programs and are being developed by traditional institutions. These programs are becoming accepted learning tools in the health field. Telehealth is being developed in much the same way with traditional practice guidelines being integrated into "distance-therapy" sessions. Policy is needed to encourage recognition of specialized training and to allow portability of that recognition across state lines as have been normalized in federal healthcare systems. Many practitioners in this system have the ability to practice with credentials earned from their original state of residence. To make this possible, though, credentialing has to move forward in national mandated competencies especially in the era of large Medicare and Medicaid service groups and the eventual institution of a national healthcare policy and plan. Evaluation strategies should be based on individual competence, organizational performance, and health outcomes. Historically, there has been a lack of feedback from evaluation that makes it difficult or impossible to determine capacity and preparedness of the workforce with sustainability of core funding continues to be a prime concern for the public health infrastructure. The US Department of Health and Human Services (DHHS) must ensure that various federal programs working to enhance the nation’s public health preparedness work in collaboration (VHA Program Guide 1103.2, 1997).

Flowing directly and logically from the assessment process, planning, goal setting, and implementation comprise the core of care management. Based on the biopsychosocial or care management assessment, the client and care manager identify goals in all relevant life domains using the strengths, needs, and wants articulated in the
assessment process. Service plan development and goal setting are imperative in developing positive outcomes with mental illness including psychosis and substance abuse and dependency (Perednia & Allen 1995). Distinct, manageable objectives help keep clients from feeling overwhelmed and provide a benchmark against to which to measure progress. Goals, objectives, and strategies should be developed in partnership with the client. They should be framed in a positive context as something to be achieved rather than something to be avoided. Time frames for completing the objectives and strategies should be identified. User-friendly treatment planning templates make client participation in the development of a service plan more likely. The availability of staff to assist in the planning and implementation of the process is crucial. Successful completion of an objective should provide the client with the satisfaction of gaining a needed resource and demonstrating success, especially in the implementation of telehealth in the clinical therapeutic process. Failure to complete an objective should be emphasized as an opportunity to reevaluate one’s efforts rather than to punish the client for noncompliance or lack of skills to complete the objective. Taking ownership of a new process such as telehealth or telementalhealth is just as important in developing the therapeutic alliance as the new treatment modalities incorporated.

A deliberate, carefully considered approach to identifying client goals offers benefits that go beyond the actual acquisition of needed resources (Proenca, 1998).

- Learning a process for systematically setting goals.
- Understanding how to achieve desired goals through accomplishment of smaller objectives.
Gaining mastery of themselves and their environment through brainstorming ways around possible barriers to a particular goal or objective.

Experiencing the process of accessing and accepting assistance from others in goal-setting and goal attainment.

These and other individually centered outcomes make the planning and goal-setting process as important as the final outcome in some cases.

**Cultural Competency and Advocacy**

Advocacy on behalf of a client or patient should always be direct and professional (Thomas, 1990). The educational process should always be culturally competent and take into consideration the existing skills level of the individual. Understanding of the therapeutic process is a key element in treatment and can always be enhanced by starting where the client is rather than beginning where the clinician is. The patient may feel as though his needs are not taken as seriously in a telehealth setting and that the clinician does not care enough to be available for in-person contact.

- A patient being refused resources because of discrimination, whether discrimination is based on some intrinsic aspect of the patient, such as gender or ethnicity, or in the nature of the client's problems, such as addiction or severe mental illness including Psychosis, Bipolar Disorder, or PTSD.
- A patient being refused services despite meeting eligibility requirements.
- A patient being discharged from services for reasons outside the rules or guidelines of that service.

Termination in the care management process setting is not an event but a process. In some ways, the process begins during engagement. For both the patient and the
therapist, it entails physical as well as emotional separation, set in motion once the patient has developed as sense of self-efficacy and is able to function independently. To a large degree, this decision can be based on the progress defined by the service plan. If the plan has truly been developed with the patient’s active involvement, there will be a great deal of objective information that will help both the therapist and the patient decide when termination is appropriate. Formal termination gives patients the opportunity to explore what was learned through interaction with service providers about setting and accomplishing their goals. It is imperative that the patient understands the termination process, and along the way, best practices are utilized in promoting patient self-efficacy and understanding of the telehealth system. The patient should always be aware that the telehealth process is providing services in locations where it may not have been available in the past, but is not a short-cut to receiving the best care and utilizing the continuum of care best-practice model.

Clinical Implications

The Working Alliance is integral to both service delivery systems and clinical practice. It provides a focus on patient outcomes as opposed to systemic outcomes as it is a collaborative process that centers on patient needs and goals, versus clinician-generated goals. A practical example of this is the potential the alliance has to improve medication compliance (Yellowlees & McCoy, 1993). Non-compliance equates with poor outcomes and increased symptomatology leading to increased service use including hospitalization and increased costs. Medication compliance is not only driven by the service delivery system but also in the patient-clinician alliance in developing the therapeutic relationship. If the patient perceives that the medication regimen “fits” the lifestyle and the personal
bodily reaction, there is a much greater likelihood on long-term efficacy in a complete medication regimen. The working alliance offers avenues away from coercion and power factors in medication compliance. Emphasis can be put on practical patient outcomes and how medication can help them achieve this. Medication then becomes a vehicle for change versus externally imposed intervention. In the process the individual is potentially empowered with gains in problem solving skills and self-esteem. The alliance process is one that promotes partnerships with patients and facilitates self-management through active engagement of the patient in the treatment process. Many patients with serious mental illness have been unintentionally disempowered by the very systems and services provided to support them. This process, however, cannot be achieved without organizational investment and commitment to its human resources and to the review of policies and practices in issues such as manageable workloads and continuity of care that promote this approach to patient-focused service delivery. The collaborative relationship that forms between partners in health care and the policy makers, who identify, develop and institute policy in addressing community health needs and issues should allow a synergism of activity. This allows the coalition to accomplish a broader array of goals than could participants, professionals and clinicians acting on their own (Rowitz, 2001). The supporting scientific and technical qualities of surveillance, laboratory practice, behavioral science and epidemic investigation lead to the development of the core public health infrastructure of information-communication capacity, workforce competency and organizational capacity.
**Telepsychiatry and Patient Rights**

Telepsychiatry applications being developed at time indicate that moderately to severely ill patients with a broad range of psychiatric illness can be seen and treated effectively using a video conferencing system (Zaylor, et al, 2000). Further work has shown that the service is effective from both the patients’ and the psychiatrists’ perspective in terms of satisfaction. Forensic telepsychiatry services have also reported to be a cost-effective method of health care delivery in the US. Video conferencing offers real opportunities to help reduce the level of health care inequality experienced by patients and also address their specific rights. It has the potential to improve access to a better range and quality of services for a population that is hard to reach by conventional means. Some of the patient rights that may potentially be addressed more effectively through telehealth are:

- The right to adequate medical and mental health treatment, to protection from harm including staff abuse, and to a facility in which the vulnerable can be protected; a safe, sanitary and humane environment.

- The right to informed consent to treatment. Staff should discuss with the patient the nature, purpose, risks, and benefits of types of mental health treatment.

- The right to the least restrictive environment and the least intrusive response to an apparent need for mental health services.

- The right to have regular and timely access to medical and mental health staff that is culturally competent and qualified to provide adequate treatment and supervision.
Videoconferencing offers real opportunities to help reduce the level of healthcare inequality experienced by prisoners as well as persons living in isolated rural areas. However, as telemedicine technologies bring new opportunities, they also bring new risks (Rigby, et al. 2001). There is still some uncertainty as to whether clinicians can safely provide health care services through telemedicine, which technology configurations provide more accurate results and whether these processes are cost-effective in the long term considering quality of care and patient-clinician satisfaction in teleconsultations. The use of videoconferencing in the delivery of health care to remote locations raises some very important legal and ethical issues. It is not fully understood how assessments and treatment conducted by telepsychiatry resemble conventional psychiatric practice and how it differs and also how the reliability and validity of testing done will compare to more commonly used methods of treatment.

**Telehealth Technology-VHA Telemental Health**

For over five years, VHA Telemental Health (TMH) has improved the quality of services for veterans. As of 2003, all Veterans Integrated Service Networks (VISN’s) provide extensive VHA outreach using telemental health technologies at 82 VA Medical Centers and Healthcare Systems. These facilities use TMH to augment services to 155 Community Based Outpatient Clinics (CBOC’s) and 21 Vet Center programs (Zink, 2003). Additionally, 29 facilities connect to each other to provide both intra- and inter-VISN TMH referrals and specialty consultation. Most recently, 18 TMH programs are expanding access to mental health care with direct services to veterans’ homes and homeless shelters
via videophones and remote health monitoring devices. For fiscal year 2003, 8730 patients received 13,840 health encounters.

By most definitions of telehealth, a telephone qualifies as a telehealth medium. With the proliferation of cellular phones, communications through this medium will likely increase. In a recent telehealth survey 89 percent of 596 psychologists reported having provided telehealth when the telephone was included; the percentage dropped to two percent when telehealth was restricted to the Internet, satellite, and closed-circuit television (VandenBos & Williams, 2000). Clearly the telephone is the most widely used telehealth medium in current use. To simplify "what constitutes telehealth" there are two basic types of telehealth technology; (1) store-and-forward and (2) video teleconferencing (VTC).
Store-and-forward

Excluding the use of telephone, store-and-forward technology is the most common type. Data, which is stored in a computer, is then forwarded to another person via email. The sender and the reader do not need to be present simultaneously; thus, the technology is asynchronous. Examples of store-and-forward technology include sending electronic mail, fax, text, photographs, psychological tests, radiological images, etc. In general, this type of equipment requiring a computer and connection to a network is cost-effective. One form of store-and-forward technology is infomatics, as the creation, shaping, sharing, and application of knowledge. Infomatics can include education, administration, and service delivery activities of telehealth. Another form of store-and-forward technology is the “human exchange”, such as an on-line self-help group directed by a professional (Stamm, 1998). A possible application of store-and-forward technology is conducting psychotherapy through e-mail. In response to the controversy stemming from this practice, professional organizations for both psychology and psychiatry have established committees to develop guidelines for behavioral telehealth (American Psychological Association Ethics Committee, 1997; American Psychiatric Association Ethics Committee, 1997). Based on ethical reasoning, store-and-forward interactions between patient and provider have been conceived as adjunctive or crisis interventions, rather than primary means of communicating. Reasoning behind this includes the potential for misinterpretation of information or adverse reactions by patients when information is delivered without the presence of a qualified professional.

Video Teleconferencing
Video teleconferencing (VTC) equipment sends real-time audio and voice data. This technology is synchronous versus asynchronous and affords face-to-face interventions. Another name for this technology is interactive television. The necessary equipment includes a camera, monitor, and computer. At the initiation of a VTC session, the clinician needs to orient the patient to the VTC modality. As with any treatment, informed consent needs to be obtained from the patient. Confidentiality and privacy concerns should be openly discussed and the risks and benefits of conducting the session via VTC should be weighed up front, while alternate methods of assessment of treatment should be included in the discussion.

**Technical and Clinical Backup**

The need for back-up services should not be understated. Many persons feel that it is essential to have an on-site clinician on hand at any time. As a general rule, sessions without an in-the room clinician should not be attempted with patients who are either emotionally unstable or volatile due to the distance from the provider and the potential for technical difficulties. If the on-site provider already has rapport with the patient, this can help to establish safety and ease from the onset of the session. Should any of the VTC equipment fail or if there happens to be a disconnection or interruption, it is imperative to have a telephone available at each point. In larger agencies, such as the VA, technical and clinical expertise is more readily available to solve the technical problem or to assist in getting the clinician on the telephone. Clinical emergencies pose another challenge. Suicide threats, violence, and other harmful behaviors are difficult to manage thought VTC. Careful screening of VTC patients should reduce the risk, but situations such as this are certain to arise.
The American Psychological Association’s Ethics Committee issued the following statement on November 5, 1997, based on its 1995 statement on the same topic.

The Ethics Committee can only address the relevance of and enforce the "Ethical Principles of Psychologists and Code of Conduct" and cannot say whether there may be other APA Guidelines that might provide guidance. The Ethics Code is not specific with regard to telephone therapy or teleconferencing or any electronically provided services as such and has no rules prohibiting such services. Complaints regarding such matters would be addressed on a case-by-case basis.

Psychologists considering such services must review the characteristics of the services, the service delivery method, and the provisions for confidentiality. Psychologists must then consider the relevant ethical standards and other requirements, such as licensure board rules.

**PTSD Telehealth**

**Description and Etiology of PTSD**

The American Psychiatric Association (2000) defines PTSD as an anxiety disorder that is observed in persons who have been exposed to an extreme stressor that evokes feelings of “intense fear, helplessness, or horror”. This exposure is also known as Criterion A in the diagnostic criteria for PTSD. The symptoms of PTSD are re-experiencing episode, increased arousal, and emotional numbing. Associated secondary symptoms of PTSD include depression, anger, self-blame, guilt, interpersonal problems, feeling detached or disconnected and loss of important beliefs. Although as early as the 1940’s and 1950’s, these symptoms were observed in survivors of war and violence, and
the condition was termed "combat fatigue", "shell shock", and "war neurosis," (Futterman & Pumpian-Mindlin, 1951), it was not until 1980 that PTSD was recognized as a psychiatric disorder with its inclusion in the DSM III. As PTSD garnered more scientific inquiry following the Vietnam War, a debate surfaced regarding the etiology of the disorder. It was argued by some that the symptoms of the disorder were attributable primarily to the trauma, while others felt that symptoms were attributable to a condition that predated exposure to trauma. However, two decades of cumulative research finding emphasize the stressor as the dominant variable in the dose-response relationship.

**PTSD Treatment**

Depending on the needs of the patient and the site, VTC can be used to provide individual or group PTSD treatment. Consideration as to the size of the VTC room and the equipment available may determine the treatment modality, as well as the particular treatment goals (Darkins, 1996). To date, most demonstration projects utilizing VTC for PTSD have focused on providing psychiatric services veterans residing in remote areas. Limited projects have examined the feasibility of utilizing VTC to provide PTSD-related psycho-education, counseling, or therapy services. Comparison of VTC to an in-person control group focused on satisfaction and information retention were rated highly for the VTC group. Surprisingly, the VTC facilitators noted that there appeared to be a greater sense of camaraderie and cohesion among VTC group participants when compared to an in-person control group. Although there may be many factors contributing to this group difference, it does seem that it is feasible to conduct these psycho-educational groups with PTSD patients. Difficulties included technical problems such as connectivity failures and transmission interruptions, but the veterans did not appear to be affected. At
the current time, it is not recommended that trauma-focused type interventions be provided via VTC. The possibility of intense emotional distress is high with this type of treatment, and management of content of discussion and containment of affect are likely to be very difficult when providing remote services. Since the purpose of providing remote services hinges on the lack of adequate or specialized services in a distant site, it would be imprudent to open up an individual’s traumatic experiences without having solid clinical backup. If that level of service were available, it would be a better practice to allow on-site clinicians to do process or trauma-focused work with the PTSD patients. Even with psycho-educational interventions, management of process-oriented material and negative emotions can be a challenge. Providing time-limited treatment protocols is one way to stay on task, contain distress, and leave the patient with reference materials for use when treatment has ended (Stamm & Perednia, 2000). Educational material presented can be provided in written form, making it easier to impart information remotely. Having simple and clear handouts allows the patients to better understand the concepts discussed. Relaxation training exercises can be described for the patient to use at home. Homework, including tailored symptom management plans can be included in order to provide the veteran with a guide for his or her own recovery.

*Evaluating the Need and Justification for PTSD Telehealth Services*

The decision to provide any type of clinical intervention utilizing telehealth is best made with careful consideration of the potential benefits versus the costs (National Institute of Medicine, 1997). As with other remote services, it is important to consider what clinical support is available at the patient site and what availability there may be for follow up care. A thorough evaluation of needs at a particular site is recommended as a
first step. Administrative and technical support has to be identified as well as the availability of clinical resources such as psychiatric services, support groups, and trauma-focused groups. It is essential to have the support of the on-site staff before any services are attempted. There may be other obstacles to implementing a VTC system for service provision. Training and maintaining staff in new areas of technology can be expensive and time-consuming. Time should be spent identifying what staff will be involved in the consultations, such as the referring provider, as well as those scheduling and processing appointments, providing technical backup and providing clinical backup. These individuals will have contact with the patient during the process and can ease the process by being informed of what to expect.

**Research and Implications for the Future**

Factors such as patient and care manager characteristics should be considered in providing *best practice* care. Other potential factors which may have an impact on the patient-therapist alliance, such as the skills and competencies of clinicians, the styles of engagement of the patient and clinician, personality factors and interventions that promote alliance development, may help to identify the therapeutic elements inherent in care management that have proved elusive to calculate by current research methods. Any research that includes patients with a psychotic illness, severe PTSD, Bipolar Disorder and comorbid with substance dependency would need to consider the restraints imposed by the accompanying symptomatology and the longer development phase which may be required in forming productive alliances with this group of patients (DSM-IV-TR, 2000). These alliances influence study design; particularly in relation to the length of the study, data collection points, and recruitment processes and methods. Outcome measurement
would be similarly influenced in subjective outcome and could be expected to be a function of time. Longitudinal studies would be the most optimal to meet the requirements of this particular outcome research (Marshall & Lockwood, 1998). Given that the alliance is a dyadic one, between patient and clinician, careful consideration to this point is needed in study design in the recruitment phase as active support of patients and care managers is required. Flexibility is also needed with consideration given to care managers concerns regarding the potential impact of a third part clarifying the difficult initial engagement phase when many of the patients may be in an acute phase of their illness. These factors would need to be balanced against the desirability of early baseline data collection to allow for tracking of alliance development and providing optimal conditions for analyzing effect on outcome. In spite of the progress of telehealth, Strannm (1998) warns that technology can outstrip the personal connection and warmth in healthcare. Much of the literature tends to focus on the “tele” component while neglecting the “health” component. The technology should not detract from the focus on patient well being and comfort and the psychosocial aspects of healthcare should be the primary focus of the provider. With this being said, there may a resistance to adapt to a new modality of treatment by providers, patients, and consultants in light of the fear that telehealth may dehumanize clinical care. It is evident that more questions are being raised about telehealth than answers provided. More research is necessary to fully understand the dynamics of various clinical, technical, and ethical issues that relate in applying telehealth to behavioral healthcare. Different assessment approaches should be tested to help yield an efficient and effective protocol for care. Rigorous comparisons between VTC and face-to-face interventions are necessary to appreciate the impact of VTC on
behavioral healthcare and clinical outcomes. Future research should build on previous findings to maximize practical information and minimize trial-and-error. However, by bridging the distance between clinician and patient, behavioral healthcare can be the answer to many unmet needs.
References


U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment, Office of


