HARRIS COUNTY PSYCHIATRIC CENTER

PROGRESS

NOVEMBER 1998

INSIDE THIS ISSUE

HCPC Tele-Education Brings Help, Hope to Local Schools

On the Forefront of Schizophrenia Diagnosis and Treatment

Innovative Help for the Dually Diagnosed

*Welcome to the latest edition of **Progress**, the community information and education publication of the Harris County Psychiatric Center (HCPC), an operating unit of the University of Texas-Houston Health Science center. It has been over a year since we last issued **Progress** and for this absence I sincerely apologize, since it is our intent to issue this publication on a quarterly basis. However, we have been extremely busy over this past year, continuing a process of re-inventing and re-engineering the Center so as to carry out our multi-part mission of patient care, education, research, and community outreach in better fashion. While very proud of the level of accomplishment achieved by the staff of the Center during our history to date, we felt strongly that we needed to be in a better position of serving our patients and students within the growing managed care environment of Houston.*

The opening of the Partial Hospitalization Program earlier this year was an important step in the growth of the Center, expanding our involvement in the full continuum of care for persons with chronic mental illness. Our reception facilities and functions were greatly improved with the renovation of the front lobby and patient registration areas as well as the redesign of some of the patient assessment and treatment processes. New relationships with managed care entities and other health care providers were developed along with procedural changes designed to make our interface with these new partners effective for those we are collectively serving.

In this issue of Progress, we share with you other areas where we have been striving to reach our lofty but necessary goals, such as: continued development of new medication treatments (Dr. Adel Wassef and schizophrenia medication), developing new technologies to look at the brain and better study mental illness (Dr. Joel Steinberg and functional MRI), developing new and improved patient and family education methods (Drs. Patricia Averill and Joy Schmitz and treatment for the dually-diagnosed), using new technology to provide school teachers and counselors with mental health training and consultation services (tele-education with the Houston ISD), making access to HCPC as customer friendly and efficient as possible (the new "gateway" of the Patient Services Center), and continued involvement in community outreach projects (Nursing Supervisor Mary Johnson and health fairs).

I hope that as you review the articles in this issue you will find them informative and stimulating. Additionally, I hope that you will be as excited and proud as I am, of the activities and efforts by the faculty and staff of HCPC on behalf of the citizens of Harris County and Texas. As always, we welcome any comments and suggestions you might like to share with us as we constantly seek to improve upon these efforts.

David R. Small, MBA, CHE
Administrator

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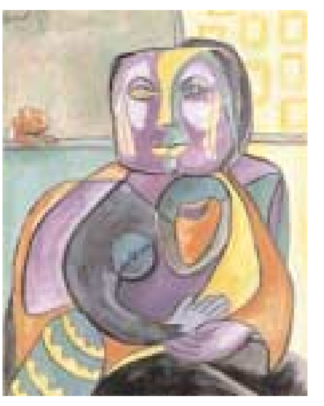
"Twila" By Thomas Henley III, a Houston artist whose work was recently featured in "Eye of the Beholder," an exhibit sponsored by the Houston Alliance for the Mentally Ill at Machorro Gallery.



On the cover: "To Bring," by Aranda Michaels, provided by NARSAD Artworks, a nonprofit organization under the auspices of the National Alliance for Research on Schizophrenia and Depression (NARSAD). NARSAD's mission is to raise and distribute funds for research into the severe mental illnesses. NARSAD Artworks showcases the museum-quality work of artists who share the common bond of mental illness. Michaels' diagnosis is Dissociative Disorder. For information on purchasing NARSAD Artworks products write them at P.O. Box 941, La Habra, CA 90633-0941 or call 800-607-2599. HCPC is grateful to NARSAD Artworks for allowing the use of Michaels' work.

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Gateway to Understanding

HCPC Revamps Look and Process to Make Hospital Admission Activity More Caring

First impressions. They make all the difference in the world, especially if you are in the business of caring for people. The way a place looks, how people are greeted, how soon they have their needs met are not things that occur "in addition" to the whole context of hospital care. These are the FIRST things that happen, and if they are not done accurately, speedily, and in a spirit of understanding and respect, the entire process of patient care is compromised.

If the business of healthcare organizations is healing, then it should begin the minute the patient enters the door. Even before, if possible. That is the rationale behind the massive changes—administratively, clinically, physically—that have transformed the way patients are received, registered, and responded to when they enter Harris County Psychiatric Center.

So don't call it "Admissions," any more, because that doesn't begin to describe this new concept. Admissions is just one part of the Patient Services Center (PSC), a new administrative area, now in its final stages of implementation.

PSC encompasses a new organizational structure and delivery system—as well as a new attitude—to manage the processes that must occur in the initial interface between patient and hospital. With the organizational changes have come some all-important physical changes, including a brighter, more welcoming lobby area—with a special area for children, and a redesigned area where patients are registered that is both comfortable and more private.

"Managed care has given folks a choice, and health care providers must be more responsive to their needs," says Helen Greenlee, Area Director of Decision Support Systems and the architect of the new PSC operation. "In order to meet the demands these mandates entail, we've developed a more inclusive process, encompassing financial welfare and access to clinical care, that is more properly called "Registration," and takes its model from that common in many general hospitals.

PSC is under the leadership of Area Director Joan Gunn, MSN, RN, and includes reception, communications, admissions, patient relations and case management. "Based upon the goal of creating a 'continuum of care' operation throughout the hospital, the PSC is designed to improve 'front end' patient care and to meet the verifica-

Continued

HCPC Patient Registration staff have a more comfortable working environment in which to help patients and families.

A brighter, airy lobby puts HCPC consumers at ease.

A beanbag baseball is just one of the fun things in the new children's area of the HCPC lobby, visited here by members of the Front Lobby Redesign Committee, Joyce Carter-Smith and Desiree Morgan, with Administrator David R. Small.

Gateway

Continued

tion and reporting needs of managed care," Gunn explains.

Under the new program, obtaining thorough information about the patient, his financial status, his family, and his clinical needs and obtaining it as early as possible is paramount. "Even in emergencies," says Gunn, "we have at least five or six hours lead time, and with most patients we have two days." Instead of making the family member and patient go through an anxious and fatiguing time when they arrive, we are developing a seamless process, beginning even before they get here, to get information from them and to them and to have their clinical needs assessed and documented.

In addition to the redesign and redecoration of the HCPC lobby, the former Admissions area has been revamped. Patients no longer wait in the hallway, but in private and comfortable registration pods. The open and friendlier design also allows for easier communication with the probate court, MHMRA, and constables' offices just across the hall.

"Considering the special nature of most admissions to HCPC, with many patients entering through the court system and all requiring a referral from MHMRA, there was a great need for a process which systematized and facilitated cooperation among the many offices involved," Gunn says. Added to these are demands of managed care providers for complete and prompt financial and clinical data. Before the consolidation of the functions into PSC, the process was fragmented and confusing with each agency focused on what it needed, and not on cooperating with each other. When inaccurate or insufficient data regarding either a patient's financial status or clinical condition is gathered, it can mean significant loss of managed care support, as well as additional questioning and trouble

See "Gateway" on page 24

A Statistical Profile of Harris County Psychiatric Center... Fiscal Year 1998 (September 1, 1997-August 31, 1998)

Total Patients Served.. 5,390 persons
Total Patient Days.. 50,631 days
Average Length of Stay..................................... 9 days
Average Occupancy Rate.................................. 72.5 %
Average Cost Per Patient (Bed) Day................. $ 507.29

...and Comparisons to Other Psychiatric Facilities in Harris County*

	Beds	Admissions	Patient Days	Cost/ Patient Day
HCPC	250	5,162	70,652	$ 417
West Oaks	36	1,992	16,194	617
Charter Kingwood	80	1,296	10,796	1,029
Gulf Pines	82	1,160	11,369	713
Forest Spring	48	203	2,227	995
Cypress Creek	64	1,358	12,872	580

*American Hospital Association, 1996

What Patients Think About Their Care At HCPC... Findings from the Third Quarter Patient Satisfaction Survey

(all data from July – September 1998 Reporting Period)

Overall Evaluation of the Quality of Care Received

	HCPC	National Norm
Excellent	49%	41%
Very Good	21%	31%
Good	22%	20%
Fair/Poor	9%	8%

Helpfulness of Programming Activities, Patient Clinical Programming (PCP)**

	HCPC	National Norm
Yes	72%	66%
To Some Extent	16%	21%
No	12%	13%

(**PCP provides group and other therapies to help patients better cope with their illnesses and learn life skills to help them when they return home.)

Did the Patient Learn How to Better Cope with His/Her Condition? (Medical Outcomes)

	HCPC	National Norm
Yes	72%	73%
To Some Extent	22%	20%
No	7%	7%

In 1996, HCPC began a major program to assess patient satisfaction with the treatment and care they were receiving at the Center. This information helps the Center know its strengths and weaknesses as a publicly funded health care institution, and also helps HCPC continuously monitor the quality of its patient care.

The Patient Satisfaction Survey monitors eight different areas: overall satisfaction with the Center, care by staff, care by physicians, non-clinical services, clinical programming, patient education, medical outcomes (effectiveness of the treatment), and other services.

Since its inception, this on-going survey has supplied the Center with invaluable information and has been the impetus for many major changes in administration, procedures, and direct patient care. For example, these data supported the structural and physical reorganization of the patient admissions process, resulting in the creation of the new Patient Services Center, detailed in the story above. Patient feedback also led to the creation of Patient Clinical Programming in order to provide patients with a variety of psychological, educational, recreational and occupational groups to assist in their treatment and enable them to return successfully to their home environments.

*Results of these patient surveys are tallied and reported quarterly, and **Progress** will publish these findings on a regular basis.*

Defying the Defiant

HCPC Researcher Is on the Front Lines in Helping Patients with the Most Insidious Form of Schizophrenia

Adel Wassef, MD, discusses a patient's treatment profile with HCPC research nurse Delilah Hamptom, RN, BSN.

Seeing the word, you pause. It's a difficult word. Somehow it doesn't look predictable. The tongue has trouble bending with the sounds.

Your instincts are correct. Neither the word schizophrenia nor the disease it describes are easy to encounter or understand.

Although that wasn't its name then, the illness has been documented as far back as 1400 BC. Its literal meaning from the Greek is "splitting of the mind," although the illness is not about split personalities or multiple selves.

Schizophrenia remains an enigma; like the word, the disease is complex, unpredictable, and hard to treat. Among mental illnesses it is the most baffling and the most debilitating. It is that uncertainty or "how much we don't know" that attracted Dr. Adel Wassef to its treatment and into research for a way to allay its symptoms.

We identify the disease mostly by its symptoms: delusions or hallucinations, disorganized thought and speech, catatonia or blunting of affect. Scientists know there is a genetic link to schizophrenia, but there is no way yet to predict who will develop the illness. And, although physicians have described five subtypes of schizophrenia (disorganized, catatonic, paranoid, residual and undifferentiated), Wassef says that physicians still doubt those designations or wonder whether schizophrenia can even be classified as only one disease.

Wassef, attending psychiatrist of an adult patient unit at HCPC and assistant professor of psychiatry and behavioral sciences at the UT-Houston Medical School, was trained in his native Egypt, and considered several medical specialties, from ophthalmology to surgery. "But when I got to psychiatry, I thought, wow, we're really at the beginning here. This is exciting."

Joining HCPC in 1994, Wassef has been involved in a number of studies at HCPC and at his previous post at the UT Medical Branch in Galveston, testing the efficacy of various drug treatments for schizophrenia. Antipsychotic medications are the treatment of choice for schizophrenia, because, even though physicians do not know exactly what causes or triggers the disease, they do know the disease is related to biochemical imbalances in the brain.

There are two groups of antipsychotic drugs. The first, called "standard antipsychotics" were developed in the 1950s and include Thorazine, Mellaril, Prolixin, and Haldol. Typically, they work on the neurotransmitter dopamine, one of many chemical "brain messengers" in the body that send messages between nerve cells.

Although they have been proven effective in reducing and relieving schizophrenic symptoms, these medications can cause serious side effects affecting physical mobility and movement. The most serious of these is tardive dyskinesia (involuntary writhing movements of the mouth and limbs) which may be irreversible. The severity of such effects and resulting embarrassment often causes schizophrenic patients more impairment.

A newer group of drugs, "atypical antipsychotics" (Risperidone, Olanzapine, Seroquel, and many others still in the development and testing stage), have a different chemical structure than the standard medications and work in

See "The Defiant" page 16

Schizophrenia

One of the most debilitating and baffling of mental illnesses, Schizophrenia defines a group of disorders that cause distorted thought and perception. Thoughts can be scrambled or jump from subject to subject. Perception can be distorted beyond reality, causing people to hear or see things that are not there. It is not a "split personality" nor a multiple personality disorder, but a chronic mental disorder that occurs in about 1.5 percent of the population. Although scientists believe it is a genetically based biochemical disorder, no definitive cause for schizophrenia has yet been uncovered. Several forms of manifestation of the disease have been identified:

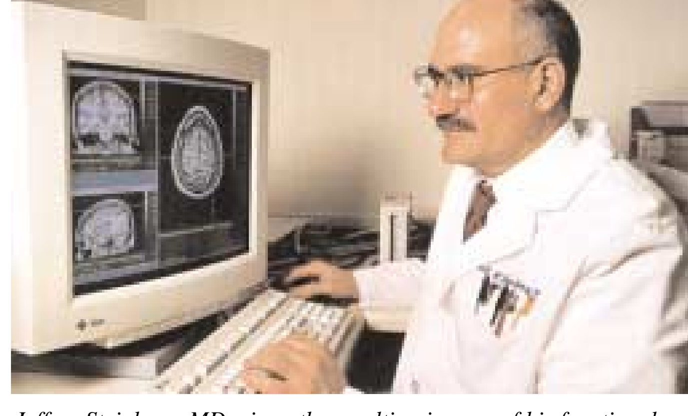
- **Paranoid:** A person with constant feelings of being watched or persecuted is diagnosed with paranoid schizophrenia.
- **Catatonic:** A person who displays either extreme excitement or extreme withdrawal or stupor.
- **Disorganized:** A person who is having trouble with thought processes and is incoherent, but not having delusions.
- **Undifferentiated:** A person with symptoms that cannot be included in any of the above categories.

Scanning for Answers

Functional MRI Is Poised to Expose Brain Mysteries, and an HCPC Researcher Is Eagerly Waiting Its Discoveries

For thousands of years, physicians, scientists, psychologists, and philosophers—all those who work with human biology, behavior and thought—have wished they could see into a human brain and watch it work.

Now, through extraordinary technology developed only in the last 30 years, they can. And just like their counterparts around the world who are identifying which human genes are responsible for what human traits, these doctors are engaged in a project to map the billions of neurons and circuits of the brain, and create databases detailing how the brain is built and how it works.



Jeffrey Steinberg, MD, views the resulting images of his functional MRI brain scans.

One of those intimately involved in this scientific and medical process of discovery is Joel L. Steinberg, MD, an associate professor in the Department of Psychiatry and Behavioral Sciences at the UT-Houston Medical School. "I have an affinity for machines and mathematics," he says about what attracted him to his research with brain scan technology. He, along with colleagues around the world, is a member of the International Society for Functional Mapping of the Human Brain, working to discover and actually "see" how the brain works.

Steinberg is also an attending physician at HCPC, a clinical psychiatrist who sees patients on a daily basis when they have just been admitted to the hospital, and are perhaps at their most vulnerable, "Whatever kind of research we do as faculty members, Steinberg explains, "we do as physicians taking care of human beings."

Steinberg's research in functional magnetic resonance imaging (fMRI) involves using the techniques of MRI, to study the physiology of the brain. "A regular MRI shows you the structure of the anatomy and the organs," he explains, "while the functional MRI is designed to give you information about both the anatomy and physiology of the brain, showing you what areas are active, where certain nerve cells (neurons) are 'firing'. Basically, the MRI is a giant magnet that picks up the radio signals which are normally emitted from a person's brain, and creates an image of the brain from them. The fMRI indirectly traces the flow of oxygenated blood in the brain because where there is increased oxygenated blood flow there is cell activity."

What makes the fMRI so attractive to clinicians and researchers is its accuracy in picturing the brain's areas of activity. Steinberg uses a geographic analogy to explain what fMRI can do: "Say we were looking for something in the United States. With the original technology we could get as far as finding which state it was in. Now we can pin it down to which county in Texas is being affected. Eventually, we hope to be able to tell what city, then what neighborhood and even what street."

In addition, fMRI is a relatively safe procedure. Unlike PET (Positron Emission Tomography), which is the most commonly used technology for brain function studies, fMRI involves no invasive procedures such as the injection of radioactive substances into the bloodstream, nor, like x-rays and PET scans, does fMRI expose the

See "Scanning" page 17

Schizophrenia varies in its intensity, severity, and frequency of both positive (characteristics that should not be there) and negative (lack of certain characteristics that should be there):

Positive symptoms include:
- Delusions
- Hallucinations
- Bizarre, agitated or catatonic behavior
- Disorganized speech

Negative symptoms include:
- Lack of motivation and emotion
- Social withdrawal
- Cognitive deficits
- Poor speech or motor activity

Currently, the most effective treatment for schizophrenia is antipsychotic medication coupled with supportive psychotherapy and other therapies. Persons with schizophrenia are not always incapable of decision-making or handling life affairs. Schizophrenia is not necessarily associated with violence; in fact, homeless people with schizophrenia are more likely to be the victims of violence rather than the perpetrators.

Disarming a Dual Diagnosis

HCPC Psychologists' Treatment Regiment Combining Medication and Therapy Receives National Funding and Professional Interest

Bipolar disorder, previously known as manic depression, strikes one out of every 100 people. Many of these people—some estimates suggest nearly 65 percent—abuse drugs or alcohol. Sometimes the substance abuse problem develops because of the bipolar illness; sometimes it begins before the psychiatric disorder is fully manifest, but becomes increasingly problematic.

It certainly isn't difficult to understand, especially when statistics report that nearly 15 percent of the American public as a whole has a substance abuse problem. We all know people who are emotionally troubled and turn to drugs or alcohol to "make them feel better." Conversely, people with substance addictions often demonstrate other serious psychological maladjustments, such as bipolar disorder or serious depression.

And because the symptoms of both problems can be similar (i.e., poor problem-solving, difficulty concentrating or lack of adaptive or positive behaviors), says Dr. Patricia Averill, a clinical psychologist at the Harris County Psychiatric Center, many people who have a "dual diagnosis"—the combination of serious mental illness with a substance abuse problem—are unaware that these conditions are related. "They may have started using alcohol or drugs socially or even as a self-medication," she says, "or the two conditions may never have been presented to them in a way that helps them relate the two."

"What we want them to do is understand this relationship, and that, while substances may make them feel better mood-wise for the moment, ultimately they are impacting them negatively."

Part of the reason those who are dually diagnosed have not made the connection themselves, is because the treatments they receive for their two afflictions are hardly ever related. "Instead, the model for practitioners has been to treat one of the problems—the substance abuse or the mental disorder—hoping that the other might go away," says Averill.

But Averill, director of Patient Clinical Programming at HCPC is part of a new effort among mental health professionals to pursue treatment options that address both the mental illness and the substance abuse problem. Her collaborator is Dr. Joy Schmitz, a clinical psychologist and substance abuse researcher at the University of Texas-Houston (UT-H) Mental Sciences Institute (MSI) and, like Averill, a faculty member at the UT-H Medical School.

Averill and Schmitz have received grants to fund the development of two treatment manuals which they are currently testing in a 12-week outpatient treatment program for dually-diagnosed patients from HCPC. One treatment program and manual, funded through the National Institute on Drug Abuse, is for those diagnosed as severely

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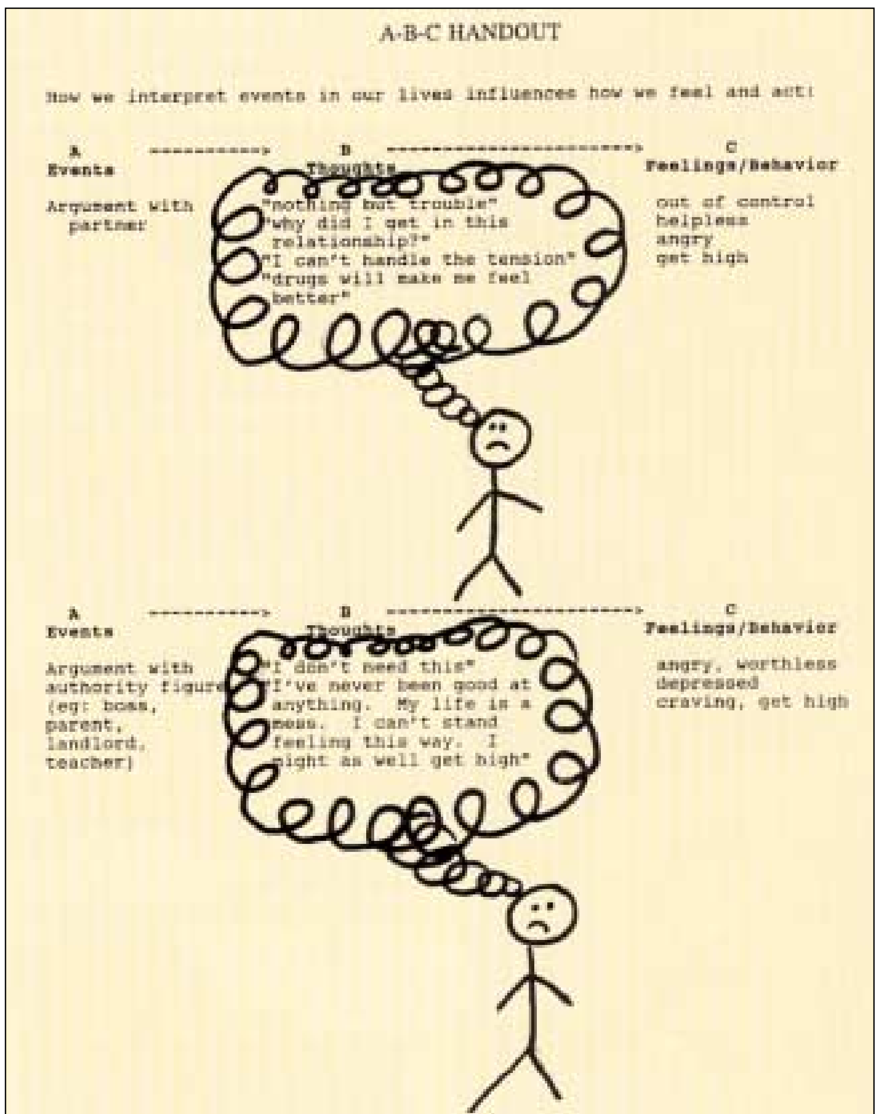

Averill and Schmitz provide graphic aids to help patients understand how thoughts affect their feelings and future behavior.

Dual Diagnosis

Continued

depressed with a substance abuse problem; and the second, funded by the private Stanley Foundation, works with patients diagnosed with bipolar (manic-depressive) disorder and substance abuse.

"What we found when looking at research on typical treatments for those dually diagnosed populations," says Averill, "is that there would be a medication prescribed for the mood disorder and perhaps a 12-Step program for the substance abuse problem. There was no sense of connection between the two disorders or integration between the treatments, despite the strong relationship between substance abuse and mood disorders. Usually a person will see one practitioner for one of the problems and be referred to another kind of treatment for the other. "Many practitioners have refused to treat those with a dual diagnosis until they become free of substance abuse," Averill says, noting that separate treatments have not been generally effective in treating both disorders.

But last summer, when Averill presented the treatment program she and Schmitz have designed during a workshop at the American Psychological Association's national convention, she received a positive response from her fellow clinicians who were looking for such an integrated approach.

Averill and Schmitz's treatment approach uses a combination of medication and psychotherapy, specifically cognitive behavior therapy (CBT), which the two found has not been effectively used in an interrelated fashion for the dually diagnosed, and their new manuals integrate the treatment at every session.

Behavioral theory says that behaviors are learned and that people learn to behave based on past experiences. "Cognitive theory," explains Averill, "suggests that our thoughts impact how we perceive things. In other words, between an event and the person's reaction to that event, there is an interpretation (thought) about that event that occurs. CBT therapies believe people who exhibit maladaptive behaviors have learned and connected things in a way that is problematic, and that if we can change the thought we can often change the behavior and thus "unlearn" maladaptive behaviors.

"What we actually have the dually-diagnosed patients do is change the behavior first, because when you tell someone to 'think differently about something,' very often he doesn't; it's much easier to have him change the behavior and test it out, and if it works then the associated thoughts will begin to change."

In Averill and Schmitz's bipolar /substance abuse treatment study, all the patients receive appropriate medications for their manic depressive illness, which are monitored regularly, and they meet regularly with a psychiatrist. One-half of the group, selected at random, is assigned to get cognitive behavioral psychotherapy as well. The efficacy of the treatment is based upon the patients' compliance with psychiatric medications, their attendance and participation in the therapy program, the manifestations of their mood disorder, and urine and drug analyses.

Averill and Schmitz use CBT to prevent patients with a bipolar/substance abuse diagnosis from relapsing into either substance abuse or problematic mood states. "Although it has never been used with the dually diagnosed, CBT has been proven to be effective both with mood disorders, especially depression, and with substance abuse. CBT presumes that a substance abuser or someone with a mood disorder can have an impact on their own problem and change it; learn to recognize high risk situations, including people, moods, places; learn to change their behavior; and learn new behaviors to adapt to these situations. The standard 12-Step programs, which are generally peer-run, treat substance abuse as a disease that is out of the individual's power to control, requiring peer support. When a person "falls off the wagon" in a 12-Step program they are considered to have "relapsed" and must start all over again. Also,

See "Dual Diagnosis" on page 10

*** SAMPLE *** TRIGGER SHEET *** SAMPLE ***

Date/Time	Triggers	Thoughts/ Feelings	Response	Consequences	
				Negative	Positive
9/2/93 3pm	running into old friends who use drugs. They invite me to use	bored down restless thinking about old times Getting high	Go with friends Get high	depressed angry at self late for work broke	forget about problems for a while felt good escape

Date/Time	Triggers	Thoughts/ Feelings	Response	Consequences	
				Negative	Positive
9/13/93 5pm	running into old friends who use drugs. They offer some to me	bored thinking about old times -- how I used to enjoy getting high.	Said "Hi" chatted Walked away Got something to eat	felt awkward missed the friendship missed the high	Proud of myself Saved $ no cocaine crash.

The "Trigger Sheet" sample from Averill and Schmitz's manual shows patients how to record and become aware of events, people, or actions that may cause them to abuse substances.

Dual Diagnosis

Continued from page 9

12-Step programs consider the use of any substance, including prescribed medications, to be a form of substance abuse, which is a problem for people with bipolar disorder, who often need to be maintained on mood-stabilizing medications. With CBT, we consider it a 'slip,' and reiterate to the patient that he or she is still moving along in a positive direction."

Averill and Schmitz describe their psychotherapy as an integrated cognitive behavioral treatment, providing coping skills, education, and other techniques that help the patients recognize the relationship between the two problems and then avoid relapsing into the substance abuse behavior.

Their manual combines techniques derived mainly from the work of a variety of researchers and psychotherapists, including G. Alan Marlatt and J. Ruth Gordon on relapse prevention; Lynn Rehm on self-management treatment for depression; and Maurice R. Basco and John Rush on bipolar disorder. "We took some of these techniques and combined them, because of the overlap in symptoms and treatments," Averill says. The manual contains a chapter for each session for the therapist and samples of handouts, information and exercises which patients complete at home or during the session.

Patients are self-referred for the research and undergo an extensive battery of psychological assessments before the program begins, at mid-treatment, after completion, and at a three-month follow-up. Psychiatrists prescribe the medications for the patients, changing them if needed because of lack of efficacy or intolerance. A major goal of the treatment in fact, is to improve clients' adherence to their drug regimen, since re-hospitalization often is associated with medication non-compliance.

The psychotherapy sessions are led by licensed master's level therapists at MSI, and all are videotaped and reviewed by Averill or Schmitz. In these sessions, patients learn to monitor their own mood changes and substance use. With the help of the therapists, each patient creates a list of symptoms that occur when they are manic or when they are depressed, as well as how they feel and act when they are stable.

Using functional analysis, they learn to examine the relationship between an event that occurs, the thoughts or feelings that follow, and their associated behaviors. *(I have an argument with my spouse and I feel bad. So I think: No one understands, I might as well get drunk And the behavior that follows: I go into a bar.)* At each therapy session, the patient then notes any of the symptoms they are currently experiencing. A "mood graph" records the daily self-monitoring ratings and allows therapist and patient to see if there are certain mood patterns. They create a life chart of events and identify those factors or events that usually lead them to either a bipolar disorder/mood disorder episode or a substance abuse incident.

> *"Because we are a primary acute mental health care facility, many of the patients for these studies are recruited while they are inpatients here and followed as outpatients. HCPC, as a facility that stabilizes patients with psychiatric illnesses, is in a unique position to identify and participate in research with patients that have been sorely neglected and are difficult to treat."*

With this information, patients are asked to anticipate high-risk situations and then develop a problem-solving plan to handle such occurrences. Options are discussed along with their positive and negative consequences. Each of the sessions is videotaped to assess and teach interpersonal and assertiveness skills.

Averill stresses that many of the patients she works with in both studies know relatively little about their psychiatric disorders. "Most are indigent, homeless, or live in halfway houses. Often they've been in the public mental health care system a long time and have tried a variety of treatments. They get their medications from a primary care physician, but no one really spends an hour walking them through their symptoms, or answering their questions, and giving them handouts to take home, like we do." Thus, a major part of her and Schmitz's therapy and the workbook program is devoted to education about the disorders.

Dr. John Grabowski, the Director of the UT-Houston Substance Abuse Research Center, is the primary researcher in the dually diagnosed mood disorder/substance abuse study, specifically depression and cocaine abuse. It is a double blind study (neither doctor nor patient knowing which medication a patient is taking) designed to test the efficacy of a specific SSRI antidepressant in the treatment of dually diagnosed patients. Half of the patients receive the antidepressant, half get a placebo, but all are getting the psychotherapy. "This study is testing both the efficacy of the therapy with these patients, and if and how much difference the antidepressant makes for them," Averill explains.

The psychotherapy is similar for both groups but Averill cautions that with bipolar patients you must consider moods going down and up. "For example, with our depressed group we help them discover a wide range of pleasant events they can engage in to improve their moods. But for the bipolar folks we need two such lists, one of more active events when they are depressed, and the other with more passive activities when they are in a manic phase. Also, with goal-setting, bipolar

See "Dual Diagnosis" on page 19

Dual Diagnosis – A Patient's Story

Mark (not his real name), 32, a carpenter and family man, knew he had problems. After all, he had been drinking and using drugs since the age of 16. But it wasn't until his first serious "manic" attack last spring, and the reaction of his family, that he began to take action. "I just lost it," he says, "I was trying to start my own business and just burnt out; I had a breakdown." His mother insisted he get immediate help. "When they began to question me at the intervention center, I knew there was something wrong and that I needed to turn it around."

What was wrong was bipolar disorder. It was, and still is, hard for Mark to accept the diagnosis, which came shortly after he was admitted to HCPC. "But right away, they put me in group therapy and other treatments for manic depression." He also began taking medication, which concerned him at first. "It helped me control the highs and lows, but I didn't know how to deal with everything else."

radually, he began to realize that he needed help, that this was a problem that wasn't going to go away, and that this hospitalization would not be the end of his struggles. He realized he also had to help himself if he wanted anyone else to help him.

Several days later Mark discharged himself from HCPC, despite fears for his relapse, with the stipulation that he continue to take his medications and see a therapist.

Before leaving, he had agreed to be part of the study being conducted by Drs. Averill and Schmitz with bipolar patients who were also substance abusers. Twice a week, and later once a week, he had individual psychotherapy at the Mental Sciences Institute and also agreed to have a breathalyzer and blood and urine tests, to ensure that he was not using drugs. "That was encouragement and reinforcement for me," he says, "I liked knowing someone was watching over me."

Honesty is crucial to Mark's understanding of his illness and his addiction. "You can't get help if you're not going to be honest," he says. He believes he must be forthcoming with his past and has begun to see manifestations of his illness in his past. He has also begun to uncover the family history, which he suspects includes undiagnosed mental illness and substance abuse.

"There were times when I was younger, I now can see, when I must have been in a manic phase or depressed. For example, I used to get sick every fall and every spring. And there were a lot of pressures to perform; friends of mine committed suicide. At various times, my family and my wife all tried to tell me I needed help."

Gradually, Mark began to see how the medication for his bipolar illness was subtly helping him, but the cognitive behavioral therapy really engaged him.

"I was really 'on' when I first started working with the therapist, a real salesman," he says, "but she really took me up short. She broke through my barriers, got me to relax and be my true self and to be honest with her about my true feelings."

Mark learned about himself and how to monitor his thoughts and behaviors. With the therapist, he outlined a program to deal with troublesome situations. Using the analogy of "taking a trip," they talked about what "roads" he could take, how he would handle a "flat tire," and what tools he had in his "trunk." He was given a notebook in which to record his feelings and urges for substance abuse at various times during the day along with his medication dosages. "I kept it with me all day long, in my truck. It really helped with the self-monitoring." He learned about his disease and about his addiction, and the handouts and "homework" assignments kept him thinking and vigilant for troublesome situations that would arise. "Self-monitoring was the cornerstone. I learned to take care of myself."

Mark's most vulnerable time for drinking was on the drive home from work. "I had it planned so that I could stop for a beer that would last until the next store." The cognitive behavioral therapy showed Mark that he needed a new routine and that he needed to substitute something for the beer. After work, he began stopping for a sandwich and a soda and then taking a break to fill out his timesheet from his job, take his medication, and complete his self-monitoring sheets. He didn't go to the same places, and when friends wanted to "buy some beer" after work, he'd always ask for soda. "My co-workers respected my wishes and sometimes even opted for non-alcoholic beverages themselves."

Another troublesome situation was a regular Sunday volleyball game, which always involved a six-pack. Mark substituted soda for the alcohol, a tactic that has proved very helpful for him with his craving for alcohol. "Habits are hard to break, but I realized that I could substitute a cold drink for a beer."

Although he understands how and which thoughts he needs to change, he struggles with trying not to get "down" on himself and getting depressed. "I have to learn that it's not the end of the world, and I can't control everything."

Mark had a short relapse after he finished the study, and it was then that he discovered the value and power of his dual treatment of medicine and therapy. "I lost my medication and thought I didn't need it. I became moody and dissatisfied with work. I set myself up to smoke pot. I fell back into my old habits, saying 'things will be different tomorrow." But, he says, the study had taught him enough discipline so that he was able to get back on track. "I learned my lesson."

Although he admits it is hard dealing with the reality of having a disorder that won't go away, Mark says he makes no excuses about being "sick." "I do have a disease. It doesn't get easier. But I don't pretend it's something else."

Tele-TLC Helps HISD Teachers

We ask the teacher to do it all, to be everything from social psychologist to nurse to surrogate parent. Each day teachers see children who need more help than they can give, children they know will never succeed without professional intervention. Now, a partnership between HCPC and the Houston ISD is using the newest technology to bring mental health professionals right into the school to help teachers with their charges.

Andrew Harper, MD, Chief of HCPC's Child and Adolescent Services, next to his new electronic friend "ET," the state-of-the-art teleconferencing equipment from Aethra which allows Harper and his colleagues to connect directly to HISD's Whittier Elementary School.

It is 3 p.m. Thursday at John Greenleaf Whittier Elementary. Despite being the second week of school, it's August in Houston: the temperature is well over 90 degrees. The 50-year old building sits on a quiet street in a working-class neighborhood backing onto I-10 East and in the shadow of several manufacturing plants close to the Ship Channel. It is clear the area has seen more prosperous times, but not recently.

Fifteen miles from district headquarters, Whittier is in the far eastern sector of the Houston Independent School District. It is a Title One school, entitled to special federal monies because the majority of its children are eligible for social services. Indeed, a majority of its 575 students are eligible for free or reduced lunches. Eighty percent of the children at Whittier are Hispanic, 12 percent African American, and eight percent Anglo. While the neighborhood has families who have lived in the area many years, many of Whittier's parents are just out of school themselves. Whittier also has a large population of children being raised by grandparents, because their parents have left or are incarcerated.

The one child in Ray Williams' office is a fifth-grader wearing an Astros T-shirt and complaining of a sore throat. Williams takes his temperature; there is no fever. She reminds him to tell his grandmother to get him some lozenges, and tells him it's time to go home. An immigrant from South Africa, Williams became a school nurse after a successful career in hospital nursing management. As the school nurse, she sees herself as a physical and psychological healer, a child advocate, and a family resource.

When most of the children have been dispatched to bus or car, the teachers drift into Williams' office. Most are women; cumulatively they represent over 70 years of teaching experience. Some have been at Whittier many years. They are white, African American and Hispanic and although they do not look alike, there is no doubt that they are teachers. They are dressed comfortably, carrying bundles of papers or canvas bags filled with homework papers, displaying the weariness and enthusiasm that comes from a day spent with young children. They find a place on one of the sickroom lounges, or drag in chairs of all sizes from the school office or workroom, sitting wherever there's room.

Among the first to speak is Carlyn, a petite, vivacious woman who has been a first grade teacher for 15 years. Serious and focused, she has concerns about a father who seems inappropriately close to his daughter, coming to school every day. Barbara, sitting cross-legged, looks too young to have been teaching for seven years. Intensely, gesturing with her hands, she explains how one of her pre-kindergartners is overly "touchy," and another has severe tantrums. Tina, a warm and friendly second grade teacher, worries about an extremely bright little girl in her class who just can't sit still. Carlyn, who taught the child last year and knows that the little girl's mother is in jail, believes this child needs professional help.*

(names of teachers have been changed to protect anonymity)*

The teachers are not talking to Williams, or to each other, but to Dr. Andrew Harper, Chief of the Child and Adolescent Program at HCPC. There is good rapport

Continued

Tele-TLC

Continued

between the educators and the doctor, an easy back-and-forth discussion. Harper, however, is not in the room. He is 20 miles away, in a special "broadcast" studio in the Center, where two-way teleconferencing equipment allows him and the teachers to see and talk freely with one another about the emotional, behavioral, and mental health needs of the children at Whittier.

Talk—dialogue—is the key concept here, because this pilot program between HCPC and HISD is entirely interactive, an open exchange among professionals, allowing teachers to see and hear the physician, and vice-versa, and carry on a conversation. It is similar to a number of such projects involving medical facilities and schools, including a Distance Learning Wellness Program between UT-Houston Health Science Center and the Spring Branch ISD. What makes the HCPC program different is that it offers consultation in addition to the education.

"The project is designed to address teachers' concerns about behavior in their classroom. Our faculty will help teachers identify when a child needs mental health assessment or intervention as opposed to just displaying psychological or behavioral patterns normal for his or her age and situation," says Donna Broussard, director of HCPC's Center for Community Education and Professional Development.

All artwork was done by HCPC inpatients on the Children and Adolescent Units. They were asked to portray how they saw themselves and how they thought others saw them.

In this piece of artwork "Mike," 8, saw himself as sad because he was hoping to go home that day.

The HCPC-HISD project is also piloting state-of-the-art medical videoconferencing technology. Loaned for the project by Aethra Corporation, special two-way TV camera units, operated by desktop computerized workstations, allow for the use of a variety of teaching techniques, from writing on a "white board" to using video clips or information from the Internet. Whittier teachers see Harper on a large-screen TV, kept in Williams' office and looked after by the school's technology coordinator Jonett Miniel and Justin Waymire, a student from Furr High School. Both machines have a screen-within-a-screen capability, allowing the physician and the teachers to always see each other.

Harper and his colleagues from HCPC and the UT-Houston Medical School Department of Psychiatry and Behavioral Sciences rotate as presenters for the weekly sessions. They often give brief lectures on a specific topic, but remain open to respond to issues and situations as they arise within the school community. Sessions range from descriptions of attention deficit disorder (ADD) or Tourette's Syndrome to how to identify a child who is being sexually abused and what kinds of psychological tests and assessments are available for children, to how to deal with skeptical or fearful parents.

Whittier was selected for the

See "Tele-TLC" on page 14

Whittier School Nurse Ray Williams (r) watches as Pre-Kindergarten teacher "Barbara" consults with Harper during the weekly teleconferences in William's office.

Tele-TLC

Continued from page 13

pilot project because of the interest of its principal and teachers, because it serves a large number of at-risk, underserved children, and because of its isolated location so far from the school district and community social services providers.

"There is nothing any better," exclaims Whittier Principal Mavis Irvan, who has been an educator for 36 years. "This tele-education project is just what we need. Teachers can come to the session directly from their classrooms, where maybe they have had a frustrating day, and discuss the behaviors and needs of their students."

The weekly tele-education sessions give these teachers the chance, in a relaxed and spontaneous environment, to ask and to learn in a give-and-take exchange among professionals. Although many have advanced degrees, most have had no specialized training in child development, nor do they have regular resources available to them, such as an on-site mental health professional. "It gives us a different point of view," says Tanya, explaining why she enjoys the sessions. "Even though we think we know the child better because we're with him or her all day, it's good to hear what an expert has to say."

Whittier's teachers listen attentively to advice and information from HCPC clinicians.

"The children we teach today are very different from the children we had when many of us began teaching," Irvan explains. "Today's more open society exposes children to more, consequently they know more, but that doesn't always mean they understand what they know or know how to process that information.

"I don't believe there are any more dysfunctional families than there have ever been," she continues, "but we just know more about them. And, because children are exposed to so much before they have fully developed a values system of right and wrong, they often present new kinds of behavior and attitude problems than earlier generations of children."

"Tele-education," she adds, "gets the teachers in on the ground floor, and they can introduce such programs to the parents. The teachers are often the liaison between the school and families, and the parents will often trust and have confidence in what a teacher recommends. Tele-education helps them understand and communicate with families about a child's problems or needs, and because they trust the teacher, the families will follow their advice."

"Do you guys have anything else to add?" Andrew Harper's youth and ready smile immediately put the teachers at ease. His demeanor allows them not to feel self-conscious about asking questions some might consider basic, describing events or people in a less-than clinical fashion, or even appearing on TV. They banter with him about how he looks on TV or his ability to handle the high-tech equipment. It is clear that both Harper and the teachers believe they are talking to "equals" whose major

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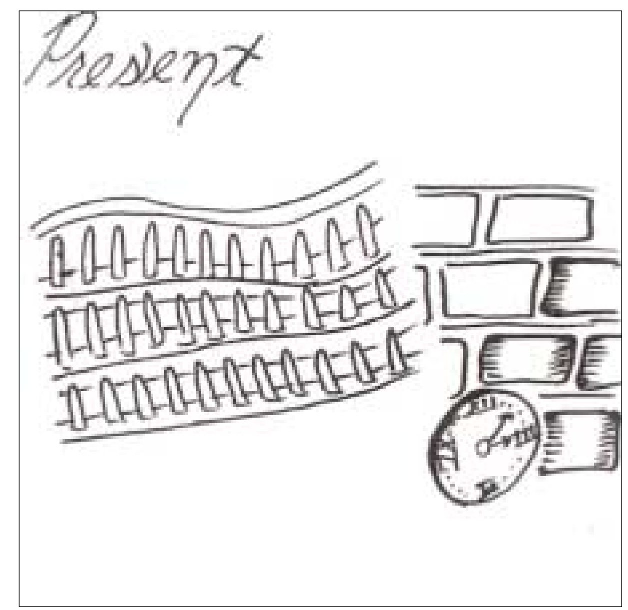

Tele-TLC

Continued

aim is to help children. And although he is not on "the front lines" with them in the classroom, they respect his professionalism, find his point of view helpful and welcome his suggestions.

To a teacher's question about a child's seizure-like staring behavior, he suggests a medical evaluation and a talk with the family. "First rule out any neurological or biological problems", he suggests, "then look for strategies to modify her behavior." He gives a teacher suggestions on how to work with a hyperactive child who may have ADD (use structural aids like lists, don't give them too many tasks to do at once). He suggests other strategies to Barbara to deal with her Pre-Ks and suggests how Tina and Carlyn might approach the hyperactive second-grader's grandmother, who refuses to even consider putting the child on medication.

"I like to hear his ideas," Tina says. " Sometimes they are the same as mine, but it's good to have them reinforced."

Harper chose child psychiatry because he likes to talk to children and hear the way they think, and because proper intervention is so crucial, and can make such a difference. He chose academic medicine because he likes to teach. He believes this tele-education project is the perfect way to reach people where they are, to provide access where there are limited resources. He believes its focus on educating schoolteachers is critical. "And," he says " tele-education is the perfect fulfillment of two of HCPC's missions: education and community service."

Whittier teachers share an insight during an HCPC teleconference after school.

"School is the work of the child," he explains, "and in addition to the time they spend in school, it is a primary center of their development of social and interpersonal skills and their sense of self-identity. Teachers and school are the most critical influencing factors in the lives of young children, outside of the home. And now, especially when we ask teachers to teach everything—from the three R's to moral values to good nutrition and health care—covering the whole range of human development, they need as much support as we can give them."

Like Harper, his colleagues who have done tele-education sessions, among them Dr. Ann Saunders, director of the Division of Child and Adolescent Psychiatry at the UT-Houston Medical School and Sharon Morgan, PhD, a faculty member and HCPC staff psychologist, easily see the value of the technology and how many ways it can be used with teachers, children, and parents.

They will get their chance to test the possibilities very soon. HCPC hopes to increase the sessions with Whittier's teachers in the second semester. In the project's second year, Holland Middle and Furr High schools, where Whittier students will matriculate, will also have tele-education. HCPC hopes to reach out with tele-education to the rural communities of Texas—Whitney ISD, a rural district in east Texas and an elementary school in Texarkana—hopefully starting in fall 1999.

Mavis Irvan and her teachers at Whittier have big plans, too. They call it "La Casa de Feliz," a special, private setting on the school campus where families and children can go to interact directly and privately with HCPC clinicians for tele-psychiatry.

After listening to the Whittier teachers describe a number of situations and behaviors that would daunt most people, an observer has just one question: "Why do you stay in teaching?" Marilyn does not hesitate: "I would rather teach than anything!" Tanya chimes in: "I stay in teaching because I love it." Both, however, see differences in the children, which they attribute to a lack of parenting skills, unstable homes, a loss of a sense of "values," and not enough

See "Tele-TLC" on page 21

How "Tony," age 14, saw himself in the past, present, and future

PAST: Trapped (spider's web) because he was smoking cigarettes and marijuana

PRESENT: He had just completed a long jail sentence, hence the cell doors and the clock

FUTURE: He was going back to school, had gotten a job and a car and was no longer locked up (keyhole). He was going to make it.

The Defiant

Continued from page 6

different ways. These new drugs work on serotonin, another neurotransmitter system.

These new medications are very attractive to clinicians and patients because they have generally been shown to have fewer serious side effects than the older drugs. Also, they may not cause tardive dyskinesia, although this has not been confirmed.

One drawback is that they are extremely expensive, costing patients up to $500 per month—compared with the older drugs, which can be purchased under generic names for about $10 for a month's dosage.

"Is the difference really worth the cost?" asks Wassef. "It is up to us as physicians and researchers," he says, "to determine, first, if the claims to effectiveness of these newer, atypical antipsychotic medications hold up, and, then, whether the benefits of these newer drugs are good enough to outweigh their high cost for the patients."

And, he adds, there are other considerations that must figure into the cost. For example, if atypicals are more effective for a person, that person is less likely to be hospitalized; therefore, reducing that cost. Clozapine, one of the first atypicals on the market, has been shown, at times, to reduce a person's white blood cell count, the body's first line against infection, thus requiring regular blood testing that adds to the cost of the treatment.

Treatment-resistant patients, or those who show no appreciable improvement in their schizophrenic symptoms, are a key focus of Wassef's research efforts. "These are people who we cannot discharge from hospital care even after maximizing their treatment.

"If a patient is treatment-resistant and no medication really works except the newer atypicals, the cost is definitely worth it because this disease is so debilitating and disruptive to a person's life. If it helps them, it's well worth it," Wassef says.

Even the newer medications do not offer the promise of help for everyone. "If a drug can improve the symptoms of 60 percent of our patients by 20 percent, we feel very fortunate," Wassef says. " Almost all patients, however, will have some symptoms even when they are well enough to leave the hospital."

The most difficult thing in successfully treating people with schizophrenia, Wassef concludes, is keeping them on the medications that work for them. "One of the symptoms of the illness is a loss of insight. When you're ill, you don't know you're ill. Therefore, if your symptoms have subsided and you feel okay, you don't think you need any medication, so you don't take it." Unlike a diabetic, who when he doesn't take his insulin goes into a diabetic coma—a physical signal the patient recognizes—when a schizophrenic has acute symptoms, he doesn't understand that he is sick.

At HCPC, all research is conducted under the strictest guidelines for safety, including informed consent and an ongoing monitoring of patients and families to make sure they understand and are comfortable with being part of such research.

Wassef is involved in three different kinds of drug research involving current and former HCPC inpatients. One study, with acute patients who have been hospitalized to stabilize their condition, involves comparing the efficacy of the older antipsychotics with the newer antipsychotics. A second study is looking at the effectiveness of two different atypical antipsychotics with treatment-resistant patients who have not been helped with standard medications. And, finally, Wassef is testing the efficacy of the drug valproic acid when used in combination with standard antipsychotics in helping treatment-resistant patients.

In this third study, Wassef is directly addressing the issue of cost. He is one of the few researchers in this country using the drug Depakote, generically known as valproic acid, with schizophrenic patients. Valproic acid, which is more commonly used for seizures and mania, has been on the market as a generic drug for several years. Wassef is trying to determine if this drug, when used with standard antipsychotic medicines, might prove to be a less costly but more effective way to help treatment-resistant schizophrenics.

Although valproic acid's efficacy in schizophrenia treatment has previously been studied, Wassef's work with it began quite by accident. "There was a patient who was so severely schizophrenic and treatment-resistant that he heard voices telling him to kill himself, which he attempted to do by cutting his trachea with a circular saw. Miraculously he did not succeed, but none of the standard drugs

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The Defiant

Continued

seemed to be effective in lessening his symptoms, and the newer drugs were not out yet.

"As a last resort, someone added a dosage of Valium, commonly used as a sedative. The patient's schizophrenic symptoms improved remarkably with the addition of the Valium, but increasing dosages were required in order to keep him stabilized, and eventually he became addicted. We took him off the Valium, and the symptoms returned.

"So we thought perhaps another, non-addictive substance that works upon the same neurotransmitter that Valium affects—GABA or gamma-aminobutyric acid—such as valproic acid, might be effective. While valproic acid and Valium are not the same compound or at all chemically alike, both have a similar effect on this amino acid neurotransmitter. As we suspected, valproic acid was effective for this patient in combination with the standard antipsychotic."

Wassef is using the Depakote combination treatment with both acute patients who are currently hospitalized for severe symptoms and treatment-resistant patients.

His main focus is using the Depakote with the standard antipsychotics, but he is also using it with a few patients who are also taking the atypical drugs. "If we can show that a treatment consisting of Depakote and a standard antipsychotic medication works, we will have found not only another effective treatment, but an effective treatment which patients can afford." ★

Scanning

Continued from page 5

patient to ionizing radiation.

Since coming to UT-Houston in 1995, Steinberg has been engaged in fine tuning fMRI techniques, along with his colleagues, Larry Kramer, MD, and Ponnada Narayana, PhD, in the UT-Houston Medical School Department of Radiology, as well as technologist Seferino Romo at Hermann Hospital, where the actual equipment is housed. "We are working to improve the methodology so we can improve the resolution, or the accuracy of locating where the brain is active."

Now, after three years of regulating the equipment for use and the successful publication of these results, Steinberg has embarked on using the technology with actual schizophrenic patients, trying to uncover which areas of the brain are affected by the disease. For that journey he has enlisted his colleagues at HCPC including psychiatrists Nurun Shah and Adel Wassef and psychologists Don Cherek, Donald Dougherty, and psychiatrist Frederick Moeller at the UT-Houston Mental Sciences Institute.

"Certain networks of cells in the brain control certain functions," Steinberg explains, and with every action or thought certain areas of the brain are activated. For example, from animal studies, we know that certain networks of cells control memory. But with something as complicated as human memory, there are multiple areas that are affected almost simultaneously. Each area has its network of neurons and these neuron networks are all connected to each other, sending signals back and forth.

"We also know that in schizophrenic patients a kind of short term memory, called 'working memory,' is impaired. This working memory is active for just a few seconds, yet it controls certain executive thought functions, such as problem solving and planning necessary for everyday life." From previous scans with schizophrenics and control groups, researchers knew roughly what areas of the brain were affected in this malfunction, specifically the frontal lobes.

> *"Whatever kind of research we do as faculty members, Steinberg explains, "we do as physicians taking care of human beings."*

Using these rough findings, Steinberg and his colleagues devised a research protocol using fMRI to test their hypothesis that certain neuronal network functions are impaired in schizophrenics which cause them to have poor working memory performance.

"It was a good place to start," he says, "because we already had some validation for our hypothesis and because devising and administering a test for this is especially amenable to the fMRI situation. We knew the prefrontal area was affected; we wanted to see if we could get a more accurate location of the disorder and better resolution with the fMRI."

The research project involves giving a memory test to the patients and the control subjects while they are undergoing an fMRI scan and recording which areas of the brain show activity. The test, developed by Dougherty, involves two different exercises: an Immediate Visual Memory Task and a Delayed Visual Memory Task. Patients view a sequence of five-digit numbers flashed before them and must remember whether two numbers in a row are the same or not. In the first exercise, patients

See "Scanning" on page 18

Scanning

Continued from page 17

view the numbers one right after the other, one per second: 12345, 12345, etc.

But in order to test the memory delay, in the second exercise there is a delay of three and one-half seconds between each number, with the time filled in with zeros: 12345 …00000….12345….0000 ….23451. To test the validity of the hypothesis, the test was administered—without using the fMRI technology—to ten HCPC schizophrenic patients and ten normal subjects. As expected, the results showed that the schizophrenics had more problems with memory than the control group.

Next, the test was administered to both groups during fMRI scans. The MRI was equipped with a mirror so patients could see the numbers flashed on a screen while they were in the scanner and push a button to register their responses. In order to factor out the time it takes for the person to see the image and then respond by pushing the button, the results of the immediate memory test were subtracted from those of the delayed test.

As expected the final fMRI scans of the control subjects while the test was administered showed increased activation in the right prefrontal lobes of the brain, whereas the schizophrenic patients showed less brain cell action in that area. But the fMRI, as predicted, was able to give Steinberg an even better resolution, defining more clearly the "neighborhood" where the activity occurs.

In addition, the fMRI scans uncovered other areas of the brain which were affected, areas that had only been sporadically reported before, specifically in the temporal lobe areas. "But," Steinberg cautions, "because this study tested so few people, it cannot be generalized to the larger population of schizophrenic patients. We still don't know if these areas are affected in just these patients, or whether they malfunction in all schizophrenics, causing the memory loss. However, on these preliminary findings, Steinberg is applying to the National Institute of Mental Health for funding to conduct a larger study.

Steinberg and colleagues' next step will be to enlarge the number of patients in his study and to use the fMRI to scan schizophrenic patients with "positive" symptoms (as well as those with "negative" symptoms). (See story on page 6) They also plan to use fMRI to study the functional abnormalities in brain networks that predispose patients to have impulsive behaviors, including substance abuse and aggression, and to study the effectiveness of current treatments for these individuals. This study will include people with no known diagnosis of mental illness as well

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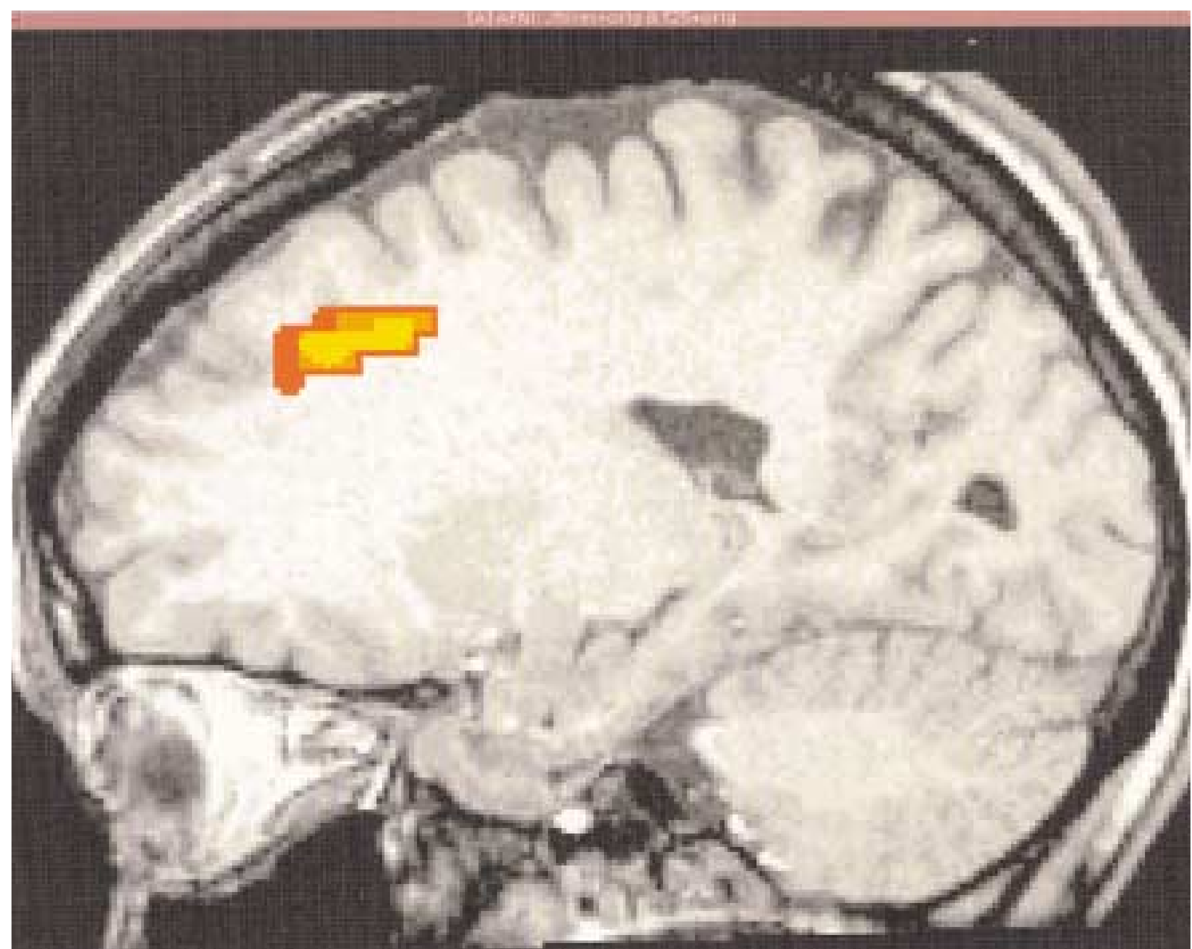


Functional MRI scans conducted on schizophrenic and normal subjects during the administration of a memory exercise show researchers where in the brain differences occur that cause memory impairment in the schizophrenic patients.

Scanning

Continued

as those who are mentally ill. "There are a number of us at HCPC and in the Department of Psychiatry involved in studying the causes and treatment for impulsivity and aggression," says Steinberg. "It's an important public health issue, as well as a central issue in the diagnosis and treatment of mental illness."

The only drawback to fMRI, from Steinberg's point of view, is that the technology is not yet perfected. "Eventually we will be able to tell which networks of cells are abnormal, but it will be quite a while, if ever, before we have technology good enough to tell us which neurons are active or what axons within them are firing. Right now, we can tell which very large blocks of neurons are active together, so we can also get some of the neuronal pathways."

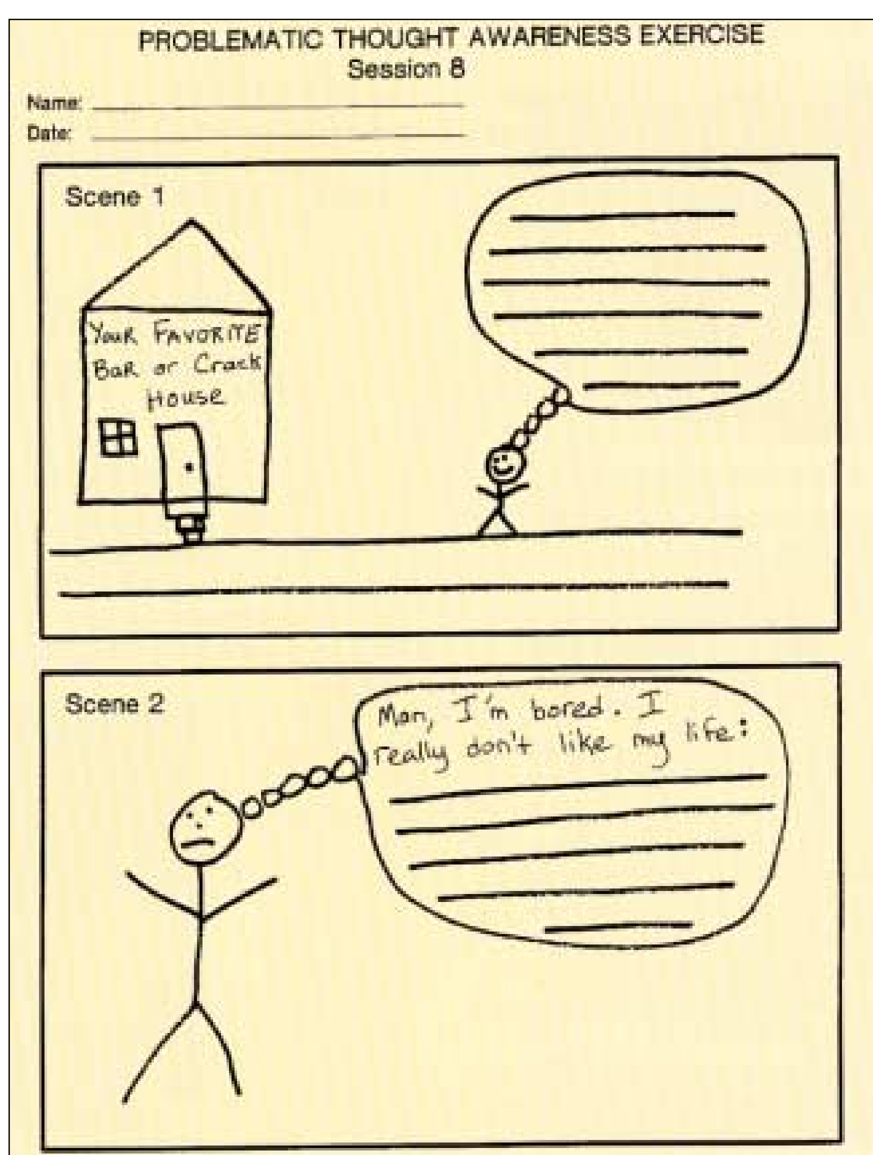
Eventually, too, Steinberg believes fMRI will be used extensively not only in the diagnosing of schizophrenia and a number of other mental illnesses, but also in the development of effective treatments, because it will be able to show what and how biochemical and physical processes in the brain are affected.

Technology like PET and fMRI have already revolutionized what we know about various mental illnesses. They are destined to greatly alter mental health treatment. Perhaps, most importantly, they have helped change attitudes—undo the stigma—about mental illness. Now that we can "see" into the brain, we can understand that mental illness is often, truly, an illness, a brain disorder.

But for the moment—as this technology teeters on the brink of transforming all we know about mental illness—Joel L. Steinberg is content to painstakingly calibrate his equipment so that he can apply this technology in the most important way he can: to help his patients at HCPC. ★

Dual Diagnosis

Continued from page 10



PROBLEMATIC THOUGHT AWARENESS EXERCISE
Session 8

Name: ____________________

Date: ____________________

Scene 1

Scene 2

One of the exercises from Averill and Schmitz's treatment manual/program for people dually diagnosed with bipolar disorder and substance abuse helps patients uncover their maladaptive thoughts and learn to try out new ways of thinking about events or situations.

patients need to learn how to set and accomplish realistic goals and when they're over-doing or under-doing it."

While both of these studies are currently ongoing, Averill and Schmitz are seeing positive results already among their patient populations. They have also been approached by a publishing house about publishing their treatment manuals.

"It seems so obvious that there is a close relationship between the onset and development of these two problems," Averill concludes. "Effective treatment has been difficult because of this almost symbiotic relationship, but effective treatment almost surely means treating both the mental disorder and the substance abuse together. Because we are a primary acute mental health care facility, many of the patients for these studies are recruited while they are inpatients here and followed as outpatients. HCPC, as a facility that stabilizes patients with psychiatric illnesses, is in a unique position to identify and participate in research with patients that have been sorely neglected and are difficult to treat." ★

Nurse Takes HCPC On the Road

Reaching Out to the Community

Mary Johnson, RN

Mary Johnson always thought she would become a teacher. Now, when she looks back on a 30-year career, she can't imagine working in a classroom and has never regretted for a moment being a nurse. Yet, when you look at the variety of nursing she's done, you see that teaching has always been a major part of her brand of healthcare.

That's probably why Johnson, an HCPC Nursing Supervisor, feels so strongly about community outreach and takes so seriously her own part in helping the Center achieve its strategic goal to increase its community profile. Johnson spearheaded the organization of a team of HCPC volunteers to serve as community ambassadors for mental health. HCPC nurses, psychiatric technicians, social workers, and other staff are giving new meaning to the old saying, "I gave at the office," by spending their free hours at community health fairs and similar events.

Johnson's career as a nurse might more correctly be called an odyssey, since it has taken her on a journey through many different jobs in healthcare. Included have been stints in traditional hospital settings, providing quality assurance support, direct medical care for the homeless, and two terms of full-time service at HCPC. Throughout her career, it has been curiosity, challenge, and service, rather than advancement and salary, which have compelled her to seek new nursing opportunities.

A native Houstonian and graduate of Booker T. Washington High School, Johnson began her medical career working for extra money in the office of her mother's boss, pediatrician Allen Kline, M.D. Eager to be out of school and into the real world, she graduated at 17 and Kline financed her training as a Licensed Vocational Nurse (LVN) in the Houston Independent School District's Vocational Nursing program. Her first job was at St. Joseph Hospital, where Dr. Kline was chief of pediatrics.

For six years she worked as an LVN for Harris County Juvenile Detention Center, and, through a law enforcement grant, was a student at South Texas Junior College (now UH-Downtown). She finished her B.S.N. degree at UT-Houston in May 1978.

Johnson joined Jefferson Davis Hospital Johnson as a staff nurse, eventually serving as a head nurse in the physical medicine and rehabilitation service. "Most of these patients were indigent, and I found working with them very rewarding," she says.

In 1988 she moved to Hermann Hospital as an intermediate intensive care nurse, where she facilitated the "Better Breathing Club" for consumers with respiratory problems, and was a preceptor for young nurses.

By this time, HCPC was in full operation and Johnson's curiosity was peaked. "After several attempts to get an interview, I called the Center and said 'Look, I'm a good nurse, I've been a nurse for a long time, and I want to work there!'"

She began working with general adult psychiatric patients in the nurse internship program, eventually becoming assistant nurse manager on one of the Center's research units.

In 1992, an opportunity to work in a mobile outreach pilot program with MHMRA of Harris County attracted Johnson, and she became a nurse at the Mid City Clinic. When the project ended, she went back to the Harris County Hospital District (HCHD), to try something completely different: quality assurance and utilization reviews. "But that was a lot of paper," she says.

Via a friendship with HCHD's director of homeless services, Johnson was able to pursue her interest in outreach nursing. Working with a local agency, SEARCH, The Homeless Project, Johnson journeyed everyday to all the homeless campsites throughout the county, working as a nurse clinician and health educator. She treated minor illnesses, provided over-the-counter medications, did health screenings and referrals, HIV/STD testing, and worked closely with the City of Houston and the Veteran's Administration.

Lesley Greven, RN; Martha Yavar, RN; and psychiatric technician Sergio Verdusco recently volunteered their Saturday to pass out HCPC information at a health fair at a local mall.

"I was never put off by the homeless people or the way they lived or their lack of personal hygiene, even in the beginning. Anything that's challenging and nobody else wants to do, I'll do it. I guess I can always find something good for me in it. And I really like working with the indigent clients;

Continued

HCPC Nurse

Continued

they need, and deserve, the very best."

Funding for the SEARCH project ended, but Johnson continued to work at the HCHD Homeless Program, serving at the Salvation Army. By this time, too, Johnson's job with the HCHD had evolved into a dual patient education-outreach role, working at several shelters, including the Open Door Mission. "I wanted to learn to do health education, but I really enjoyed the outreach."

Finally, in June 1997, Johnson returned to HCPC full-time (she had remained a member of the part-time nursing staff) as second shift supervisor. "I liked HCPC so much when I first came here and, although I enjoyed the outreach work and patient education, I knew I could continue those activities here."

"Outreach is important to me because I think that prevention and early detection are the best cure. It goes along with my philosophy of life. I want to educate people on the importance of taking care of medical problems early. People need to see us out in the community. It helps ease the stigma and may turn attitudes around. I'd like people to look at mental illness just like any other illness."

"I never thought I could be a psychiatric nurse; I thought you had to have something special. And when I was in school, I never wanted to be around 'those people.' But when I got here, I thought this was state-of-the-art, it was so much better than what I remembered from the treatment and care mental patients got back when I began nursing."

Some might say that I should be higher up on the nursing career ladder; I should have advanced degrees and more senior positions. But for me, I needed the different challenges. That's my middle name. I am very happy doing what I'm doing. I just want folks to think of me as a real good nurse."

(If your organization is holding a health fair or needs a speaker, call HCPC at 741-7878.) ★

Tele-TLC

Continued from page 15

personal attention. "They need so much love," says Tanya.

"I don't know if children are more hyperactive or have more problems than years ago," Harper says, "or if we're more adept at recognizing them and treating them. Maybe they were even shunted out of the school system. Trends tell us that children are demonstrating increasingly more aggressive behavior and earlier ages of substance abuse," Harper says, "but some of the basic issues—social development, identity development, achieving independence, definition of your role in society—are pretty much the same and impact children and families in the same ways.

"The schools are asked to do so much on such limited resources, and that makes this program so valuable," he says. "These are the kinds of issues for which they need a constant mental health resource for information and techniques. And I want to make these sessions as useful to them as possible."

Of course the bottom-line question for this kind of technological investment must be "Does it help teachers in the classroom?" The response from one teacher demonstrates how effectively and quickly tele-education and teacher consultation can be in solving a problem:

During the previous week, Carlyn had asked Dr. Harper about the father who seemed too attached to his daughter. Harper suggested she talk to the father about the child's need to be more independent. Carlyn spoke with the dad when he came to school the next week, explaining to him and his daughter about when and how it was appropriate for him to be at school with her. Since their talk, he has not been at school. Carlyn, and the other teachers who have also been bothered by this behavior, excitedly tell Dr. Harper that nothing they had tried before had worked—but his suggestion had turned the situation around. ★

"Samantha," 12, was feeling "split" the day she drew this figure. She has been a patient at HCPC before and suffers from depression and behavioral problems.

Creson Continues Work in Bosnia

"I believe that investing in a strong mental health infrastructure will have a greater, long-term positive effect than providing direct client services," says Dan Creson, MD, UT-Houston professor and HCPC and MSI clinician and researcher. That is the philosophy underpinning the psychiatric/psychological support program which Creson has been organizing for over five years in the warring nations of the former Yugoslavia.

Creson, an expert in family and community therapy and former head of the Gulf Coast MHMRA, has done consulting work with several groups providing relief efforts to Bosnia and Serbia. "We are not permanent residents or members of those cultural and ethnic groups; we're not going to stay. But if we can help build a strong mental health support system, involving the true stakeholders, we will have created something that will grow and last."

On behalf of UT-Houston, Creson first went to Sarajevo in 1992 with the London-based Humanitarian Aid and Medical Development (HAMD). After returning, he formed the Texas Medical Assistance and Development project, a non-profit organization to supply medicines, such as lithium, which were in short supply in Bosnia; and personal items, such as make-up for female mental patients.

Early in 1993, he was recruited by Catholic Relief Services (CRS) and returned to Sarajevo—then in the midst of being heavy shelling and sniper fire and with a starving population—where he worked with Dr. Narcissa Pojskic to develop a proposal with CRS for supplying training and support to the social workers in the community centers around the city. Pojskic had identified the great need these people had for support in their work with a massive population living with daily trauma. With little general mental health services available to the public, these centers were serving as the places of refuge and understanding for Sarajevo's ravaged citizenry. "These local people were the experts, they were living through this trauma themselves," Creson explains, "and we trained them how to deal with the myriad of problems their traumatized neighbors brought to them, from general stress and depression, to children with amputations, to separated families.

Creson and Pojskic (who was then a dermatologist and has since become a psychiatrist) also created a program to train the "best and the brightest" of these social workers to become trainers themselves. And they also made it a point of their program that the caretakers were taught how to take care of their own mental health needs.

Creson also reached out to the thousands in refugee and displaced person camps throughout Bosnia. He and his group sought out the leaders in these camps and trained them to provide mental health services for the internees.

After the 1995 Dayton Accords, he began a new phase of his project, sending his peer-trainees to be outreach workers throughout Bosnia and other areas. And this past spring, he began phase three, the creation of an independent, multidisciplinary support organization for Bosnia's young mental health professionals. "We believe this group will not only give these people a forum of support from which they can lobby for reform, it will also be a valuable conduit for new ideas for the profession and a model for other such social advocacy groups."

Creson plans to return to Bosnia early next year, and may be doing work in Serbia as well, at Kosovo, the latest Balkan battleground. He has a proposal with HAMD which may take him to Angola to train para-professionals who work with children who have lost limbs in the de-mining of the country. Other projects or study of traumatized populations have taken him to Northern Ireland and the Gaza Strip of Israel.

All of this work in Bosnia can be put to good use back home, Creson says. "The more understanding we have of the psychological and physiological responses to trauma, the more effective we can be in dealing with those who have suffered trauma or currently live in traumatic situations. For example, Creson sees a major application of his work to be in understanding juvenile violence and treating its victims. He has organized an international conference to be held at UT-Houston on April 24, 1999, that will bring together mental health, medical, social services, and education professionals to address the alarming rise in juvenile violence in the U.S. and ways it can be addressed. ★

HCPC Pros Open Minds Through Public Lectures

Take a top-notch staff of psychiatrists, psychologists, nurses, and social workers. Add an internal and external community in need of education about mental health. The result is a continuing education project launched this fall by the Center designed to increase HCPC's profile and public service mission.

Weekly, free public lectures and presentations on a variety of mental health topics are being offered through the HCPC Center for Continuing Education and Professional Development. Qualified professionals can earn continuing education credits in psychology, nursing and social work for their attendance.

"We have a tremendously diverse group of professionals who are involved in cutting edge mental health research and patient care," says Donna Broussard, continuing

Contined

education director, "and we want the medical and educational community, as well as the public at large, to benefit from their knowledge and expertise. In addition, as the county's major public mental health facility, HCPC has a responsibility to stay connected to the community and provide on-going public mental health education."

The program encompasses three distinct lecture series developed by HCPC's medical, nursing, and social work staff. The presenters will include HCPC staff and UT-H Medical School faculty, as well as experts from other institutions.

Programs have included Alan Swann, MD, on current research in psychotropic medicines; Patricia Averill, PhD, on cognitive behavioral therapy; Linda Pollack, PhD, on group therapy with bipolar patients; HCPC Executive Director Robert Guynn, MD, on major depression; and "Journey of Hope: Family," a day-long program presented by the Texas Alliance for the Mentally Ill (AMI) especially for family members of persons with mental illness.

Upcoming are presentations by Edward Reilly, MD, on substance abuse; HCPC Medical Director Roy Varner, MD, on special needs of the elderly; and the second annual seminar, "Current Perspectives for Children and Adolescents with Mental Illness," sponsored in conjunction with the Harris County AMI and the Houston Independent School District.

Continuing education credits are available at a cost of $6 per CEU, and videotapes of all lectures are available from the center for a small fee.

For information on times and locations of upcoming programs, please contact the HCPC Department of Public Information and Education at 741-7811. ★

Partial Hospitalization Program Fulfills Continuum of Care Commitment

Now ten months old, HCPC's Partial Hospitalization Program (PHP) is well established as an attractive alternative to inpatient care. Adults and children who are returning to the community after inpatient care, or outpatients who need stabilization or closer monitoring of their medications all benefit from the PHP says Area Director Desiree Morgan, MSN, RN, CHE, administrator for the Center's Continuum of Care programs.

Currently, the PHP accepts patients directly from inpatient care at HCPC or from the area's varied mental health services, and also outpatients committed from the court system.

The PHP operates Monday through Friday, from 8:30 a.m. to 5 p.m., providing multidisciplinary services in a structured environment, treatment groups and individual therapy and counseling, health and medical education and management, and relaxation and stress management. Transportation, two snacks and lunch are provided.

"Our goal is to provide the daily treatment and support patients need while we continue to help their reintegration into a normal community environment," says Morgan. We believe that treating patients in the 'least restrictive environment' possible, is ultimately more beneficial for them. I'm pleased to report we've had continued success since we began, and high levels of patient satisfaction with the treatment."

One of the purposes of the PHP is to give patients skills and knowledge they will need as they re-enter society after an illness. In response to patient feedback, PHP has begun a continuing series of workshops like the recent "Career Day," which brought in representatives of community organizations to give participants information on returning to the job market, workplace skills, and to advise patients on what kinds of employment opportunities are available for them. ★

New Drugs Studied at HCPC

HCPC pharmacists continually work with the Center's physicians in the research protocols to assess the effectiveness of new medications. According to HCPC clinical pharmacist, Brooks Joe, one of those currently being studied is Seroquel, a new atypical antipsychotic for the treatment of schizophrenia. Similar to Risperdal and Clozaril, drugs already on the market, Seroquel is believed to help control the symptoms of the disorder without the debilitating side effects of older antipsychotic medications. The drawback to these newer drugs is the high cost. (See story on page 6). Other clinical trials are being conducted elsewhere with Saprazidone (which will be the only injectible antipsychotic) and Iloperdidone.

For bipolar disorder, there are no new drugs specific to its treatment currently under study. However, Joe says, many researchers are studying the effects of epileptic agents, such as Depakote and Tegretol, for people with manic-depression. And Depakote is also being studied for its effectiveness in treating migraine headaches.

The "atypical" antidepressants, the SSRIs (Prozac, Paxil, Zoloft) and the SNRIs (Effexor), continue to rule the field in the treatment of depression, Joe says. Both types of drugs work by blocking the reuptake by the brain cells of certain neurotransmitters (serotonin in SSRIs and serotonin and norepinephrine in SNRIs). Joe says pharmaceutical studies are now coming out about various treatments with another neurotransmitter known only as Substance P.

For Attention Deficit Disorder, Joe says a new pharmaceutical, Adderall, which has just been released in the past year, shows more efficacy than either Dexedrine or Ritalin, which are the most current drugs in use for this condition. ★

Gateway

Continued from page 5

for patients and families, exacerbating their own worry and anxiety."

The ideal "patient flow" which the PSC hopes to achieve begins with pre-registration, which can often be done over the phone and before the patient arrives at HCPC. If a person seeks to file a warrant for a court-ordered admission of a family member, pre-admission procedures can begin with the gathering of clinical and financial data. As soon as intake information is received from MHMRA, HCPC reviews it, contacts the patient or family member and interviews them. At this point, verification of data takes place, with the registration personnel contacting and receiving authorization from the patient's insurance carrier, informing patients of rights and liabilities, and notifying case management (the social work team). With much of the work done beforehand, registration, including nursing and psychosocial assessments and determination of length of stay, is quicker and more organized.

HCPC Lobby, looking down hallway to Patient Registration area, now has colorful signs and displays that provide information about HCPC and sense of caring to patients, families, and visitors.

"There has been a dramatic change in the structure and appearance of the Patient Registration/ Admissions since I left 13 months ago," says Greg Gigax, RN, who has returned to HCPC in a newly created position of Patient Registration Coordinator. "The new design better supports the change in the business model necessitated by Medicaid managed care, which allows the customer more financial responsibility in the patient care process. At the same time, the shift to a more clinical or treatment model in patient registration complements the increasingly clinically driven work of this entire area. Being part of this system is an exciting challenge not only because of the system changes, but because the outcome will positively impact both the financial resources and patient care of our hospital." ★

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