Kosuke Koyama’s delightful book called Water Buffalo Theology reflects on the late Japanese-American theologian’s experience of being sent early in his missionary career by his Japanese church to Northern Thailand. Up to that point, Koyama had spent most of his life in a fairly comfortable urban setting, but now suddenly found himself in a place of thousands of rice paddies. As he rode around his new “parish” on his motor scooter, Koyama discovered that most of the people he saw spent all their days standing in shallow rice water, alongside massive water buffalos. During the onslaught of the monsoon season, these all day work schedules were usually followed with periods of more rain, during which everyone had to find some way of staying dry.

Koyama made a decision to read the Bible as if he were standing alongside his parishioners, in a rice paddy, trying to maneuver that behemoth water buffalo. He reports that suddenly passages of scripture and visual images leaped out at him that he had never really considered before. Koyama reported that he discovered that there is much in the Bible about water! He theologized that God rules from a place above the rains and the floods. (Koyama’s God stays dry.)

At the close of his little book, Koyama generalized on the method he had been using in his efforts to understand what he believed the Bible has to say to the culture of northern Thailand. Missionaries, he reported, must find a place where they are “sandwiched between” the Bible and the culture to which God has called them. He continues on to say they must then engage in a two-way exegesis, working at two interpretive exercises: They have to interpret the questions and answers of the culture in which they find themselves, and they must bring those questions and answers to the Bible, in order to interpret anew what God has to say about such matters.

I think I understand Koyama’s interpretative questions and the “sandwich” metaphor, as they appear to highlight my sense of what psychology, psychiatry, religion, and sometimes, RxP, do to some degree. However, as opposed to Koyama’s theological need to have a “God that stays dry,” I want a “God that gets wet.” Theologically, we could also position ourselves as Koyama describes the people of Thailand did during the monsoon season, as hiding under some room, avoiding the rain, as if “watching God’s rain out there.” Above others, away from others, or in the rice paddy with the water buffalo- these images inform our thinking about culture, and our theologizing about culture, our psychologizing (my word) about theology, and maybe even our own RxP Culture.

Strict biological reductionism keeps “God dry” by insisting that its postulates are irrefutable and immutable. Psychiatry holds the DSM in a god-like fashion, by verse and criterion, with determinants that push people into that preordained box. RxP may fall into the same two-way exegesis of being another holy tablet that has its “above”-like reference, feels no rain, and knows no people. Or it can be the brief, 10-minute visit “away from” others who are in the rain, practicing their science from a cultural position which is “god-like above the rain,” never allowing themselves or their thinking (theologizing, psychologizing, RxP-izing) to “get in the rice paddy with the farmer and his water buffalo.”

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## SPECIAL FEATURE SECTION: RXP IN THE INDIAN HEALTH SERVICE
**ASSISTANT EDITOR: LCDR MICHAEL TILUS, Psy.D., MSCP**

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The Tablet, November 2010
From the Editor – Passing the Torch
Laura E. Holcomb, Ph.D., MSCP  lholcomb@hpmaine.com

You may have noticed that this issue is a bit larger than usual (OK, that’s an understatement!). Credit is due largely to the vision and initiative of Mike Tilus, who proposed a special feature section on RxP in the Indian Health Service (IHS), and was willing to serve as Assistant Editor for this section of this issue in order to make this possible (Thank you, Mike!). You may have noticed the announcements of multiple awards he has received for his work with the IHS, in prior issues of The Tablet. Please read his article, Water Buffalo Theology and RxP, to learn the inspiring “back-story.”

Thanks to all of the dedicated and determined professionals who have contributed articles to the special feature section on RxP in the Indian Health Service. Your stories paint a rich picture of the spirit and needs of the Native American people, and of the work you are doing to deliver care to them under often challenging circumstances. I hope that more psychologists with RxP training will consider bringing expertise and talents to the IHS. This is an opportunity to further the RxP movement while giving back in a very meaningful way.

In addition to the wonderful articles about the IHS, there were also enough submissions of other types of informative articles to fill an entire issue of The Tablet, with a range of fascinating clinical topics. A special thanks to Mark Muse, Ed.D., MP, ABMP for facilitating an interview with Dr. Robert Julien, author of the recently updated (12th edition), A Primer of Drug Action, led by his wife Dr. Judith Julien. You won’t want to miss Dr. Julien’s pre-conference workshop and presentation at the Division 55 Mid-Winter Conference in DC in March, 2011 (see pg. 81).

This issue ends my 2 year tenure as editor of The Tablet. I have enjoyed having this opportunity to contribute to Division 55 and the RxP cause.

In 2011, your new Tablet editor will be James Calvert, Ph.D., MSCP. He completed the master’s in clinical psychopharmacology in 2007 at Fairleigh Dickinson University. He is a licensed Medical Psychologist in Louisiana. He is a Board-Certified Diplomate-Fellow in Psychopharmacology by the Prescribing Psychologists’ Register (PPR) and the International College of Prescribing Psychologists. He teaches graduate psychopharmacology courses at Southern Methodist University in Dallas, TX, and Texas A & M University in Texarkana, TX. He is the president of Calvert Partners, PLLC in Cedar Hill, TX, that provides professional mental health and organizational behavior training, business consulting, and psychological assessments. He is an APA Accreditation Site Visitor, and has been a director of APA-approved psychology internships and APPI postdoctoral fellowships in the past.

Dr. Calvert will be assisted by Nicholas Patapis, Ph.D., MSCP, who will serve as Associate Editor. Dr. Patapis completed his master’s in clinical psychopharmacology in 2009 at Fairleigh Dickinson University. He is in private practice in Philadelphia, specializing in clinical psychology and forensic neuropsychology, and is a psychologist at Wordsworth Academy. He has authored numerous book chapters and peer-reviewed publications on forensics and substance abuse. He was a National Institute on Drug Abuse Clinical Research Fellow at the Treatment Research Center, Department of Psychiatry, University of Pennsylvania School of Medicine.

Please welcome James and Nicholas by submitting lots of articles for The Tablet in 2011. Thanks to all who have submitted articles during my tenure in 2009 and 2010. It has been a pleasure to work with you.
It is hard to believe, but my year as President of Division 55 is nearly over, and this will be my last column as President. It has been an incredible professional experience that I have truly enjoyed immensely. As an organization, we are blessed with some of the best and brightest that our profession has to offer. The energy, creativity, and passion for the professional practice of psychology within Division 55 cannot be described as anything other than absolutely remarkable. As I look around at our Board of Directors and membership, I see true leadership that I hope will advance within the governance of the American Psychological Association (APA) and lead our national organization in a direction that further advances the practice of psychology, and promotes the betterment of our society through our professional skills as healthcare providers.

One such individual on our Board of Directors that brings his heart and gifted mind to the service of our organization and profession is the incoming Division 55 President, Dr. Glenn Ally. Dr. Ally will have my full support as the Past-President, as I continue my service to Division 55, while he promotes an agenda that is devoted to our goal of prescriptive authority for appropriately trained psychologists in every venue. His efforts to advance our movement are already well underway with the planning of the 2011 Mid-Winter Conference that will occur in conjunction with the State Leadership Conference of the American Psychological Association (APA).

A significant highlight of my tenure as President of Division 55 was the 2010 Division 55 program offerings at the 118th Convention of the American Psychological Association (APA), which was truly outstanding. Dr. Massi Wyatt, Convention Program Chair, did a wonderful job putting together a well-balanced selection of continuing education programs and symposiums which were well attended by our membership and many other participants. Dr. Wyatt was especially creative at finding new and different ways to entice early career psychologists to select Division 55 programs during the 118th APA Convention. His dual role of serving as Membership Committee Chair and Convention Program Chair was definitely a win-win for Division 55 this year.

For those of you who were able to attend the Division 55 programs during the APA Convention, it should have been fairly obvious that Dr. Wyatt and the other members of the Convention Program Committee devoted a great deal of attention to the needs and opportunities that exist within Indian Health Services. The tribal self-governance allows for independent decision making regarding the issue of prescriptive authority for appropriately trained psychologists. Significant behavioral healthcare needs currently exist within the tribal communities.

As has been the history of the prescriptive authority movement thus far, underserved populations such as can be found in the military, rural states, and the tribal communities provide a unique opportunity for prescribing psychologists to offer valuable services, while demonstrating the efficacy of allowing psychologists to prescribe. This is another win-win for Division 55, because there is a definite need that our membership has the skills to safely and effectively meet, which can further demonstrate our commitment to service and our willingness to go where the needs exist, while providing quality care.

I remain convinced that doing the right thing for the right reasons will always produce success! I am also hopeful that as our nation embarks upon the journey of modernizing our healthcare delivery system, we will find ourselves in the position of seeing increasing opportuni-
ties for psychologists, especially those with training in psychopharmacology.

There is a need for all psychologists to become more educated about the impact that the use and misuse of pharmaceutical agents has had upon our healthcare delivery system, our national economy, and society as a whole. But greater still, there is a need for psychologists to become more involved in the judicious practice of medication management. Our basic training teaches us that the majority of health-related problems have significant contributory behavioral components and, likewise, the best treatment of many medical problems involves significant behavioral components.

Psychologists should learn to prescribe in order to be a part of changing how healthcare is delivered in this country, and to prevent the inappropriate utilization of psychoactive drugs in high risk populations. Yes, the pharmaceutical industry has expanded the patent of many of the atypical antipsychotics to encompass “mood stabilizing,” but do we really think that these drugs are being correctly prescribed, when the volume of sales has reached the current level?

“Psychologists should learn to prescribe in order to be a part of changing how healthcare is delivered in this country, and to prevent the inappropriate utilization of psychoactive drugs in high risk populations.”

Pharmacy expenditures are the single fastest-growing area of all healthcare related costs, growing by at least 5% per year, and sometimes as much as 20% per year. The U.S. spends more per capita on prescription drugs than any other country in the world. Prescription drugs account for about 13% of the total cost of healthcare in the U.S.

Because of the overutilization of prescription drugs in the U.S., there has been a dramatic increase in accidental poisonings. The number of individuals hospitalized due to poisoning, related to prescription medications, increased by 65% between 1999 and 2006. The rate of unintentional poisoning from prescription opioids, sedatives, and tranquilizers in the U.S. has now surpassed motor vehicle crashes as the leading cause of unintentional injury and death.

The public healthcare delivery system will remain an appropriate venue for the prescriptive authority movement because of the overwhelming needs that exist in many underserved areas; however, we must also begin to think more globally about how to apply the skills we possess as both psychologists and “psychopharmacologists.” We all support prescription privileges for appropriately trained psychologists, to expand our scope of practice and to better serve our patients, but there is a significant need for psychologists to get more involved at a health care policy level related to pharmaceutical utilization, to protect and better serve the public. Our skills in evaluating research are especially relevant, given the current overutilization of prescription medications and the modern healthcare reform activities, in designing a preventive system of care that has great potential to become more behaviorally-based.

Dr. Owens is the CEO/President of NorthKey Community Care in Kentucky.
Tilus, Water Buffalo Theology..., continued

(continued from pg. 1)

… In my experience, any clinician practicing this way in Indian Country will be relationally impotent.

Simply having an RxP prescription pad does not dispose a prescriber in Indian Country to a god-like reverence above the water buffalo culture. Being “above the rain” positions the RxP provider on top of the Indian culture, reflective of the years of the dominant culture inflicting self-righteous judgments and assumptions about what they knew was right “for them.” Practicing RxP this way is dismissing the culture. As a practitioner, I haven’t even found the rice paddy, the farmer, or the water buffalo yet.

Some RxP prescribers “watch the rain from afar”; sheltered from the Monsoon downpour, they observe the farmer and the water buffalo, making assumptions about that culture “from afar.” These RxP providers in Indian Country tend to insulate and isolate themselves from the impact of the culture they are attempting to be “health care providers” of. Theoretically inclined, emotionally insulated, they tend to see and use RxP as “an intervention” for “the depressed culture” out there. They don’t feel the monotony of rice planting, tending the water buffalo, or the scarcity of life this culture exists in.

How do we think theologically and psychologically about the RxP Culture we are forming and are being in-formed/ shaped by? What is the method of our integration? Why is that important? To me, it started in my first assignment as a newly minted Doctor of Psychology, stationed in the far northwest corner of Washington State, working with a small, isolated, medically underserved Quileute Tribe in La Push, WA. Barely a square mile dense, this tribe of approximately 650 had centurion roots on this Pacific Coast landmark that they traced back to an ice age exploration from the Eastern side of what is now Russia.

This particular job had not been filled for years. Previous therapists had been hired, and fired, for a multitude of political reasons. This Indian Health Service (IHS) region had been unsuccessful in recruiting anybody for this position. So, as one official informed me, “You (Public Health Service Psychologist) were our last option! We didn’t want a PHS Officer, but you’re the only one that would come.” Interesting welcome!

I began traveling an hour west to Port Angeles to complete my Post Doctoral Supervision with a psychodynamically charged supervisor, Marian Birch, DMH (Doctor of Mental Health), whose specialty was in child mental health. I brought her a question that was haunting my soul one day, and she reminded me to, “Hear the voice of the child.”

This child was a clearly struggling 9-year-old who was having serious difficulties in school with truancy problems, questionable medical conditions, malnutrition, anger, behavioral disruptions, and undiagnosed learning disabilities. His Fetal Alcohol Syndrome features were remarkable, as was his silly smile and love of basketball. We immediately began “basketball therapy,” and during our once a week “therapy session,” we walked to the gym and had sporting games of H.O.R.S.E. and one-on-one. He loved beating me to the hoop!

His grandmother was an honored matriarch of the century-plus year-old Shaker church established in the mid 1800s. As an ordained Pentecostal minister and...
Tilus, Water Buffalo Theology..., continued

chaplain, I was very interested in this Indian church that had somehow integrated a pre-Pentecostal, German emigrant, experiential religious movement into their personal Quileute culture. Exuberant singing and dancing, and “shaking” were both normal religious customs of the Shakers and this Native American Shaker Church. Grandma had requested my 9-year-old basketball wanna-be to be taken to the church and “brushed off” [a religious ceremony where a group of believers use prayer, dance, ringing individual bells, and would put the child in the middle and “brush off the evil presences” (spirits) that were encumbering his spirit]. I gladly supported this as a wonderful, family and cultural intervention, and sent my prayers along with them as well. This would be a closed spiritual ceremony, so I would not be allowed to participate or observe.

As we began to build our therapeutic relationship, I knew this young man needed some psychiatric care for his impulsive anger outbursts. Our little Tribal medical clinic had one PA, two nurses, one dentist, one psychologist (me), and one drug and alcohol counselor. After consulting with our PA, he said I needed to start the referral process to get this young man to our local community mental health facility that was about 12 miles away. I was informed by this clinic that “his name will go on the waiting list.” A visiting psychiatrist came through our part of the county once a week, for one day, so the waiting list was long. I had no idea how long that was.

My basketball buddy and I waited for three and a half years to make it up that list. When I finally left that duty station after almost four years, I was 100% successful in not getting a single one of my Native American patients referred to see the psychiatrist, including my little bud. Racism had a nine-year-old face now.

I grew to understand there was still great animosity and racial discrimination with the dominant Caucasian culture and this small Indian tribe. The hardened and tough logging industry had gone away, but left much of that culture around. Racism was very much alive with malignant effect. After two years of waiting, I went to my supervisor and discussed this case, the cultural and political scenario, and my clinical dilemma. Repeatedly calling brought no results. I feared losing the little collaboration I was hoping to build with the only other mental health practitioners in my area, but the excuses kept coming: “The list was lost; he’s number #35; we had some other emergent people and now he’s number #54.” My little basketball buddy had finally cornered me after waiting for almost two years and asked me, “What’s wrong with me? Why won’t they let me see the doctor?” I had no words. My supervisor advised me to listen to the child’s voice. That supervisory encounter, coupled with that child’s request, stirred within me the desire to do something. And I was mad! Mad at the clear racial prejudice that was accepted as the norm!

One day my little buddy’s grandmother dropped by to see me, and announced herself at the front desk as “an elder” who wished to see “the big white Doctor in the uniform.” She graciously discussed her hopes and fears for her grandson, her sadness at her daughter’s alcohol problems, and the bewilderment of what kind of path her grandson would take, given his “suffering” (her word). Before leaving, she honored me with an invitation for my wife and I to attend an upcoming, special religious service. As is custom, all the families would bring something for the potluck (my word). For them, the eating together was as symbolic and vital as the sharing of communion in my church. Here, this Shaker church shared the nutrition of the earth, the sea, and the family of relatives and relationships. It was a day of “good medicine” and rich learning for my wife and me. About that time, I discovered the RxP program through Alliant International University; discovered that it was being video conferenced live; discovered I could…

(continued on pg. 8)
... drive to Portland, Oregon some four and a half hours away for a long, hard weekend; discovered I would not get the support of the my federal supervisor; discovered the fact that this was not going to be easy; discovered the fact that I loved the learning and the RxP peers I met; discovered the fact that there were a lot of people outside my small world that knew a lot about psychopharmacology and were willing to teach me; discovered that this was going to be a lifelong commitment of learning.

What I also discovered was my Physician Assistant (PA) that I worked with every day began immediately consulting with me about medications, side-effects, and drug-drug problems. I was only a year plus into my AIU RxP program, but the clinical need for informed decision making on psychopharm was intense and real. I found myself in the rice paddy, and the water buffalo was laughing at me.

I continued traveling to Portland for a year and a half until my new duty assignment came. My wife and I then packed up and went to Four Corners region, working in Navajo country. While helping establish the first ever IHS inpatient psychiatry, adolescent locked unit that specifically attempted to integrated western medicine with the Navajo healing and wellness ceremonies, teaching, and medicine, I called into the 800 line for my weekend training. I was so excited about the opportunity of working with many professionals of various disciplines, and bringing my neophyte RxP skills to the table.

However, cultures clashing was the sound of this arena, as this grand experiment found mountains of disagreements between how, when, and who does the “integration.” I, with my Pentecostal heritage and my Zen Buddhist leanings, met practitioners who were Navajo by birth but practiced their social work duties as a Mormon or a Catholic or in a traditional way. Other Pakistani/Indian psychiatrists practiced medicine from their Hindu tradition. Our Navajo traditional practitioner (a staff member) held sweats and other ceremonies held in high regard for their healing efficacy. Traditional herbs and medicines were administered to the adolescents with concurrence from their parents. Our mornings were started with the burning of sage or cedar, smudging and prayers, and good words given to each other both patients and staff. And in this mix, it seemed like everyone was attempting to integrate their thinking about healing, medicine, wellness, and family with other treatment members' beliefs. I wish I could say it was a success, but to me, these two years were profoundly disturbing and personally destructive. I had hoped to start my study for the damnable Psychopharmacology Examination for Psychologists (PEP), but life here was too hard. I was becoming overwhelmed with the turmoil and internal chaos. My psychopharmacology degree was completed, but I had no energy left for intense study.

Here, some were demonizing psychotropics as “bad” and reifying them as the epitome of evil western medicine. Other professionals were calling on their use as “best practice”; the question was always raised, “By whom? Who determined this as best practice for us?” If a culturally-approved Native provider believes that his sweat ceremony with herbal water is curative for psychiatric illness, who can dispute that? Which bible do you swear by? And contrarily, if a psychiatrist or psychologist believes that this bipolar adolescent needs intensive dialectical behavioral therapy (DBT) three times a week and a trial on lithium, who determines this as culturally appropriate?

This clash of cultures seemed to come to a head when a patient's care and treatment became polarized between treatment communities. The western medicine trained members wanted this young man with paranoid schizophrenia to continue in weekly psychotherapy and to take his prescribed atypical antipsychotic. The patient began skipping therapy sessions and refusing to take his medication. The traditional provider...
believed he needed a special Navajo ceremony, and that that this patient did not need to go back to therapy, since he had resolved (healed) his problems in a recent sweat ceremony. The patient also had an unfortunate trauma history and someone, somehow, decided he needed to surface everything, all at once, during his sweat. As the Acting clinical Director, I was aghast at this seemingly justified decision. With great angst, I confronted the alleged provider who both denied the charge, and returned my anger with his anger. What a mess…

It appeared the clinical question of the care for this young man had gotten twisted into a politically dangerous agenda, as opposed to a truly qualifying clinical answer. By that I mean, when does the question become one of “I’m the doctor and I know best/most,” or, “I’m the cultural professional and this is how the cultural/religion knows best/most?” Choosing this bipolar question always pushes away a Likert scale answer because there is only a “yes” or “no,” or “right” or “wrong” answer, with hell to pay on either side.

I strongly reinforced the treatment plan that this young man would continue with therapy, taking his medications as prescribed, and receiving the traditional teachings, ceremonies, and prayers, like all the other patients. And if he was indeed “healed,” then the entire treatment team would witness the miracle and thank the Creator for it… and he would still continue in therapy and with psychopharm. Culture clash was now personified and, in the end, my patient was told he did not need to continue in therapy or take his medication. Staff was polarized and sides were drawn. Soon, I was removed from my Acting Position and assumed the regular duties of the Senior Psychologist. Not my best hour.

Within this RxP trail, the question gradually became clearer that it was more important “who” was saying what, from what “authority” and “credential” base, and where the theology was going to come from. In my mind’s eye, our team needed a “God that stays dry,” that is, above the situation, above the rain, and who is sovereign. Sovereign edicts have power and efficiency but, in my experience, usually the clinicians who press for their authority “from on high” are the ones I don’t want my family receiving care from. And if your professional provider espoused his or her remedy as “the true way” or “the evidence-based way,” and the adolescent must subscribe to “their way of healing,” the ultimate end was reification such that only “God” could argue. Since no one was God, the discussion was over. And, if someone places themselves as God, they usually need a Satan. I sought consultation, supervision, and spiritual direction through this rift, as many of these themes had personal biological family images that my counter transfersences could not avoid, and some brought back combat chaplain feelings and memories that were charged with primitive feelings as well.

In the midst of these cultural, religious, and personality enmeshed battles, I wore out. One day feeling high anxiety with some chest pressure from a now growingly hostile work environment, I decided to get myself checked out by the Army ER doc who ran our ER department. My father had a triple heart bypass when he was in his 60s, so I knew I might have some genetic loading for such. And I had noticed that since coming to this high desert, my strength and stamina while running and working out with my kettle bells had diminished. I chocked it up to stress at work. After a short nitro trial, I was shipped down to Albuquerque. Three days later and a triple-valve bypass due to coronary artery disease, I got thirty days of vacation free recovery time at home. My respite sparked a renewal of the desire within me to complete my RxP training, but not here or in this place. My soul felt like I had been assassinated, and my heart was vengeful. I needed to regroup.

Sometimes this RxP journey has moments that stall us out, cull our… (continued on pg. 10)
... emotional and spiritual resources, and leave us begging. The RxP factor that gets side-swiped by some of the RxP community is the value of RxP friendships and professional colleagues. If not for a few of these connections, I may have stopped my RxP journey at that point. But I’m not good at giving up! (I also noticed that, as a common characteristic of most of the RxP psychologists I have met anywhere- we are a tenacious bunch of hounds, that once we get the scent we just don’t give up!)

Like a process theologian, or a marriage and family therapist who is monitoring the “living system,” I think these times of setback and recovery are important parts of the RxP journey, where we consolidate our growing internal and professional identity. During my heart surgery recovery, it was my spouse, my family, close RxP peers, and PHS officers, who called, noticed, encouraged, prayed, and reminded me to get out of bed and back in the game. Good people!

Old Posttraumatic Stress Disorder (PTSD) signs and symptoms from my combat chaplain experience in the first Gulf War that were moderately controlled for years began resurfacing. Anger, fear, and depression were all old friends that were now living with me more than I had wanted, but had their place at the table. This time, I began to notice the effect my hypervigilance had on my thinking, my sleep disturbance, my quick reactions, my existential angst and anger, my marital relationship, and my professional impact. Reading a DSM for criteria really didn’t make much sense, as my body already told me what was present. But I was different this time. I respected the neuronal surges and bouts of “infection of unknown sources” and “fevers of unknown sources.” Combat nightmares got blurred with the intensity of conflict at this recent cultural crisis. Night sweats became a norm. My biological heart was healing, while my emotional heart was bleeding.

I knew why when I went to McDonalds with my wife on an occasional Saturday morning date, I needed to sit with my back to the wall, facing the room, with every exit door scanned and available. This subtlety also was noticed to subside when my PCP put me on a beta blocker for my heightened blood pressure. Physiological arousal was a living dynamic, a part of my faith, a measure of my person, not just a criterion. I theologized about it, argued with God about it, and minimized it to my PCP. I embellished it with my wife, if I felt it would get me some care. And I gradually grew to see it as my body responding to trauma. My body. I had worked with many veterans at multiple VA hospitals, where they seemed to find a measure of wellness when they found their sanity in their madness. My body was no different. My PEP reading during my recovery days was real, not theoretical.

Neurobiological reductionism, as I understand it, seems to haunt most cultures that have some sort of “free will” theology (as I do). To some degree, this RxP adventure is challenging some of this epistemological free will argument. By that I mean there is a freedom “from” (a wide variety of real or imagined) constraints, and a freedom “to,” (i.e., to pursue the good, to act for reasons, to develop one’s character, or to inhibit one’s propensities for action). When one acquires a psychiatric diagnosis, like I did with PTSD, are the neurobiological deterministic features of neurons making me do something? Do I still have sufficient free will to act on my own? Is this neurobiology impairment disturbing my mind to such a degree that I can be impoverished? Illusions, delusions, or realities about our human nature? To me, these are RxP questions, as the experiences we never forget are shaping and informing to even our cellular level.

Enthusiasm, burnout, and finally despair is often the path that I, and many mental health professionals, find in serving the IHS. I suspect most of it is due to the fact that the IHS is, and has been historically, underfunded, under-staffed, under-resourced, and over-utilized. Indian
Country is truly a third world country within the USA. This fact cannot be overstated. There is always more need than there are resources. Always. In many ways, it’s a systemic set up for vicarious PTSD. What is also true, from my perspective, is that most clinicians aren’t surprised when their patient acts crazy and self destructive. But when the organization itself is too sick and dysfunctional, (mirroring the alcoholic family system), clinicians often get sick themselves, work harder to become "saviors", or play out their own biological family roles. Like my experience, most clinicians leave IHS because of the organizational pain and sickness, not the patient care.

However with very few exceptions, the mental health providers, and especially the RxP psychologists who work to get into IHS, are people who are reflective, compassionate, highly skillful, and have some sense of “inner call” to do this work. They are committed to working in the public sector and to communicate hope. They want to be a part of something larger than themselves. They sacrifice, work harder, work smarter, and there is still, at the end of the day, more need than resources. Cultural integration is expensive and not easy. I still think it’s worth it. Cultural clash can be, and usually is, devastating.

Two turning points for me during those years were attending the APA Div 55 conferences in Missouri, and in New Mexico. I met like-minded professionals of many persuasions from all over the globe, who were open-hearted, highly motivated, and extremely bright. The conferences were good but the relationships were far more important. I was struggling, personally and professionally, to find my place within a newly growing field, feeling my need for serious professional mentoring and consultation, desiring professional friendships. I had a few, small coffee talks with what I know now are key national RxP leaders, who virtually shifted my direction. Mario Marquez, then President of Division 55, was the most approachable psychologist I had ever met. He graciously shared his heart and hard-earned wisdom. He was a man of integrity. Patrick DeLeon zeroed in on me following a few comments I made one evening. His candor, wisdom, and open heart immediately touched my heart where it needed to be. We spent maybe ten minutes together, but that was sufficient. He also stood tall. Elaine Levine made extraordinary gestures to help me get to that conference, and also spent another 10 minutes with me which were life changing. She moved me. My now friend and mentor, Captain Kevin McGuinness, and I met for the first time after having multiple telephone consultations during distressing duty times. He became a brother in arms, and my friend. He exemplified the best of the Public Health Service! RxP had faces now.

I am a relational theologian and a relational psychologist who values the moments we get when we actually connect with another human being in an experience that actually changes us, and connects us with memories that we will not forget. My pastoral father would call that a “born again moment.” My psychodynamic supervisors called it the “significant emotional encounter.” My family system supervisors called it “the positive feedback loop.” I know that these RxP psychologists showed great respect and great trust to me. They “came along side,” in a living-faith way that to me has become the nature of most of the RxP psychologists who are in this movement. They are people who are intentionally pouring out their lives and shouldering the mission of bringing RxP to the public sector. I would not be in the RxP movement today without…

(continued on pg. 12)
... the unexpected encounters I had with these “sent people.” (I think the Creator finds unconventional places to bring people into our lives for unique moments or turning points, as much as I believe that occurs in therapy as well.)

I left Navajo country physically stitched up, ready to find a new place to serve, searching to find a new, safe, work home. I assumed the Behavioral Health Director position at Spirit Lake Health Center, at Ft. Totten, North Dakota. Both my wife and I were feeling beat up by our previous duty assignments and needed a quiet place to recover. We talked in earnest about the requirements I needed to complete to get this magical prescription pad—pass the PEP, and get the 80-hours of medical internship and 400-hours of preceptorship. We discussed the investment we had made personally in the past 5 years, academically and personally. I frankly wasn’t sure I was up to the task. We decided that we, or I, needed to get it done now.

Spirit Lake Health Center was the Indian Health Service’s one-stop-shop clinic serving the Dakota tribe here, of some 6800 registered Indian family members, not including other Indians simply living on the reservation. Our clinic has two physicians MDs, one Doctor of Nurse Practitioner, one podiatrist, one dentist, four nurses, one psychologist (me), and one social worker. By one federal staffing protocol, my behavioral health department “should” have four psychologists, four social workers, two case managers, and I office assistant.

Psychiatric care was generally contracted to our local state human resource center, and the wait time was generally three months for new patients. If we needed to get psychiatric care faster, we may have to try and get an appointment at Grand Forks, 90 miles away or Fargo which was more than 150 miles away. Either would take two months or so to get someone seen. So, from the get go, my PCP and I began consulting on psychopharm. Our Chief of Pharmacy became a strong supporter of RxP as she saw me talk and educate about the Medical Psychology model being integrated into the primary care treatment team. With a few exceptions, the entire medical staff supported my training, and welcomed me to complete and get the NM Conditional Prescribing License. What a nice change!

Over the course of the next three years, I studied to pass that damn PEP (said very respectfully). I found the mountain of material to study overwhelming. My first attempt at the PEP proved my worst nightmare, as I scored five points below the passing mark. After studying for more than 18 months for this event, I felt defeated and grew sullen. Maybe this was just beyond my abilities. I shared my doubt with my wife who again, encouraged me to keep on- “stay the course”. From anyone else, those would have been cheap words. From her, they registered faith to me, and in me. Sometimes when we don’t believe in ourselves, we have the gracious gift of others believing and supporting us. That is a part of the RxP story for me and others who are in the process.

Regrouping, I took an additional one and a half years to study, involving all weekend, almost every weekend with few exceptions, and often three to four nights a week. I grew to appreciate the complexity of the material and the intricate biological design of these bodies we carry, and developed immense respect of my medical peers for their effort. However, I found myself growing more and more cautious, then honestly apprehensive, of being a capable, safe, and responsible provider, given the enormity of the pure book knowledge I was attempting to master.

This fear led to a conversation with Director Elaine LeVine concerning her program in Las Cruces. The nine-month evidence-based medicine and pathophysiology course work sounded like exactly what I needed. Soon, I began flying down to Las Cruces monthly, while continuing my regular duties at Spirit Lake Health Center. I found this
medically-oriented training immensely pragmatic and informative, with hands on physician-supervised skill training. My confidence and ability began to grow. At the end of these trainings, I began my 80-hour supervision training within my own clinic under our clinical Director Dr. Candelaria Martin, M.D., a Navajo family practice physician. This intensive two weeks was a capstone to the Las Cruces training.

Completing the nine months of course work, I immediately began my year-long preceptorship with Dr. Martin, meeting weekly for supervision. Labs, reviewing medical records, taking vitals- all initially were both overwhelming and exciting. The clinical training is so vital to establishing the actual knowledge base, that I wish I had more time and opportunity to practice this on a daily basis. Skills not practiced clearly diminish, so currently I continue to do a mini-physical and take vitals on all of my patients, do a Review of Systems (ROS), conduct a thorough medical record review, and review labs (with all of my books on the side as references). I talk to my PCPs daily, and can’t imagine practicing any other way.

My New Mexico RxP application was submitted for four months before I received my Conditional License. Since then, I have been credentialed and privileged for full RxP scope of practice at Standing Rock Reservation in ND and SD, after being deployed there recently for a mental health disaster response, and my own Service Unit at Spirit Lake Health Center in Ft. Totten, ND. I took almost seven years to complete my entire academic and clinical training in psychopharmacology. This is a lifelong learning commitment, which to me continues to push my sense of integration. Thinking theologically about psychology, and thinking psychologically about theology, both impact our ability to think biologically.

A living practice, such as what I hope fully have tried to describe here, involves the ongoing dialogues between “living human documents” (using Anton Theophilus Boisen’s words) of both patient and doctor. The use of RxP language and training, like medical or psychological diagnoses, needs to be anchored in the concrete data of living human experience. The depth experience of human suffering, in their medical, psychological, or spiritual contexts, demands the same respect and sacredness as do the historic texts from which the foundation of the medicine, psychology, pharmacotherapy, or Judeo-Christian faith (my bias) are drawn. Reflecting on this living person, with their living narrative, demands a sense of water buffalo theology- getting intimately shaped by knowing the rice farmer, getting in the rice paddy, riding the water buffalo, in the rain.

I hope that RxP Culture and RxP psychologists “get wet.” Watching from the outside under the roof is silo practice. Watching above in a god-like fashion is paternalistic and delusional practice. I hope our RxP culture continues to build a water buffalo theology that puts RxP psychologists’ right smack in the rice paddy with the water buffalo, letting everything we do and think get wet, relating to our patient, so that our biology, psychology and theology all have the intentional design of being saturated in the culture we serve. We need to crawl in and get “sandwiched.” If getting the prescription pad sets us apart, above, and distant, then we have gained nothing.

I often wonder what happened to my little, now grown, basketball buddy who played H.O.R.S.E. therapy so well. I would like to tell him that I kept my promise, and now he can get some meds.

LCDR Michael R. Tilus, Psy.D., MSCP serves as the Director of Social Services and Mental Health Programs at Spirit Lake Health Center in Fort Totten, North Dakota. He is a Conditional Prescribing Psychologist in New Mexico, and has full prescribing privileges with the Indian Health Services. He has chosen to serve in isolate, remote, medically underserved populations as the focus of his Public Health Service Career. Mike served in the U S Army for 12 years as a Chaplain and is a combat veteran of the first Gulf War of 1991.
Spirit Lake Reservation encompasses 245,000 acres in northeastern North Dakota in Benson, Ramsey, Nelson and Eddy counties. According to the 2002 Bureau of Indian Affairs Labor Force report, the total population of the Spirit Lake Tribe (Mni Wakan Oyate) was 6,339. Of this total, 5,086 were Spirit Lake enrolled members; 350 were American Indians from other tribes; and 903 were non-Indians. The age distribution of the Native population, as compared to the State, identified a very young population with 50% of the population under age 18:

- Under 18—tribal population 49.6%, State 23.2%
- 18 to 64—tribal population 47.6%, State 62%

The poverty rate on the reservation is documented by a variety of economic indicators:

- 47% of the population lives below the poverty level (12% statewide)
- 59.9% are unemployed (Bureau of Indian Affairs, Labor Force Report 2002)
- Median household income is $21,857 ($35,590 for North Dakota)
- 95% of K-12 students were eligible (2003-04) for free and reduced meals (Four Winds Community School report)

The 2005 North Dakota Suicide Plan reported that North Dakota suicide rates for ages 5-14 were 175% higher than the national rates, and 49% higher for ages 15-24. The ten-year suicide rate for Native Americans was 174% higher than for their white counterparts. During the ten-year period, the region of North Dakota including Spirit Lake Reservation had the highest suicide rate of the eight regions in the state, with 19.2 deaths attributable to suicide. According to the Spirit Lake Indian Health Services (IHS) Mental Health Program (2006), 48 mental health assessments were completed. Twenty-nine of the 48 patients or 60% were ages 10-24; and the remaining 40% or 19 patients were in the age ranges of 8-13 and 25-63. During 2006, there were two suicide completions, six attempts, and twenty-five patients with ideation and five exhibiting suicidal gestures.

The Spirit Lake Suicide Prevention Coalition was formed in May 2005 for the common mission of saving lives that could be lost due to suicide, and helping survivors of suicide recover. The priority was to become a trained community that could help at risk youth and community members. Meetings were held to form a suicide prevention plan for Spirit Lake Tribe. A draft is in the state of revision. The Spirit Lake Tribe Suicide Prevention Plan will be completed and approved during the project period.

Because a base of operations was needed for the effort, an initial application was submitted for the North Dakota State/Tribal Suicide Prevention grant in May 2007, and an award of $42,500 was received in September 2007. This was seed money to begin development of culturally specific materials, and to provide community training. This led to a successful application for the SAMHSA Garrett Lee Smith grant, on behalf of the Spirit Lake community and many partnering agencies. The Spirit Lake Suicide Prevention Coalition serves as the advisory body for the grants, and will continue in that capacity for any future funding. We emphasize the integration of the Dakota culture into all project activities with the approval and blessing of tribal elders, who serve as consultants and coalition members.

According to the National Strategy for Suicide Prevention commission (NSSP), culturally competent services are, “the delivery of services that are responsive to the cultural concerns of racial and
Halsey, Suicide Prevention..., continued

ethnic minority groups, including their language, histories, traditions, beliefs, and values” (United States Public Health Service Office of the Surgeon General, 2001). Further, the Commission encourages collaborative efforts to recruit minority and bilingual professionals, develop curricula addressing the impact of culture, race, and ethnicity on mental health and service use, and train and research programs/services for multicultural populations. We feel this initiative supports the project we developed to meet the needs of our community.

The Wiconi Ohitika “Strong Life” Project is a federally funded Garrett Lee Smith suicide prevention project, serving the Spirit Lake Dakota Nation in Fort Totten, North Dakota. It is based on the Dakota culture, and provides suicide prevention services to Spirit Lake community members, ages 10-24. We are currently in year two of a three-year grant. Our project purpose is to educate and strengthen the Spirit Lake Tribal community to prevent the loss of loved ones due to suicide.

The Wiconi Ohitika Youth Suicide Prevention Project has six goals:

- **Goal 1**: Project Implementation and Community Engagement
- **Goal 2**: Partner with Four Winds Middle and High School, Warwick Middle and High School, and Minnewaukan to provide suicide prevention support
- **Goal 3**: Implement suicide prevention training to the community, educators, and care providers
- **Goal 4**: Strengthening the Community
- **Goal 5**: Increased awareness of suicide prevention
- **Goal 6**: Evaluate the Wiconi Ohitika Project

The core of this project is based upon the culture, language, values and history of the Spirit Lake Dakota (Mni Wakan Oyate) which promotes positive self-identity, increased self-esteem, and knowledge of Dakota cultural competency. We recognize that once students acquire basic knowledge of their culture, history, and spirituality, they become more confident and willing to make positive choices that will lead to healthier lifestyles.

Cynthia Lindquist Mala, PhD, President of Cankdeska Cikana (Little Hoop) Community College, which serves the Spirit Lake Dakota community (her home reservation), brings great expertise to her role as Project Director. Dr. Mala earned a master’s degree in public administration, with an Indian health systems emphasis, and a PhD in educational leadership. During her tenure as Spirit Lake Tribal Health Director/Planner in the 1980s, she was a member of the Tribe’s interagency working group for suicide prevention. At that time, Spirit Lake Tribe had only one mental health social worker, and documented three to four suicide attempts per week. As ND Indian Affairs Commissioner (later 1990s/early 2000s), Dr. Mala assisted in developing the State’s suicide prevention plan.

I serve as the Wiconi Ohitika Project Coordinator, in addition to Vice President of Community & Library Services at Cankdeska Cikana Community College. Because of my dedication to the Spirit Lake Dakota Nation, where I am an enrolled citizen, I have made it my personal mission to work jointly with other agencies, so we can combine resources and effectively improve services offered. As a community, I believe we can set our minds to accomplish anything! Through the Wiconi Ohitika project, community partnerships have been built and existing collaborations strengthened.

A critical element to the success of the project is community ownership and continuity of coalition support. Our coalition membership has been greatly enhanced through the consistent participation and support of Dr. Michael Tilus. Cankdeska Cikana Community College recently honored Dr. Tilus for his efforts in attaining his Medical Psychologist certification. The basic premise of medical psychology is recognizing that body and mind are one. This is in alignment with Dakota thought and philosophy, of harmony and living in balance. Traditional healing is “holistic.”...

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Halsey, Suicide Prevention..., continued

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... dealing with the total individual instead of focusing on diseases or conditions. Dr. Tilus’ active involvement and support of the project is evident through his regular attendance at monthly coalition meetings, willingness to assist in providing gatekeeper training for the community, sharing of appropriate resources including articles and books and, most recently, collaboration on a summer camp for area youth that focuses on building social skills and providing opportunities for service learning projects. He is dedicated to assisting us in building our community suicide prevention plan and crisis protocol. Dr. Tilus has brought new membership to the coalition by expanding and recognizing our circle of providers including Mercy Hospital and Lake Region Human Services Center. His contributions to our effort are immeasurable and invaluable.

Through Wiconi Ohitika project, we encourage and provide activities that will strengthen our youth and families through learning about where we come, from elders who are willing to share their stories and wisdom. We emphasize education about the Dakota way of life: spirituality, beliefs, cultural values, traditions, history, music, sacred rites, and perpetuation of our language so that our youth will gain a positive self identity and a strong sense of self worth, so that when times get tough, they are resilient enough to stand up to the challenge.

Antonette “Swadeau” Halsey serves the Spirit Lake Dakota community as Vice President of Community & Library Services at Cankdeska Cikana Community College. She is the coordinator for the Wiconi Ohitika “Strong Life” suicide prevention project. As an enrolled citizen of Spirit Lake Nation, she lives and works to improve services and develop needed programs for her community. She is proud of her Arikara and Hidatsa ancestry, carrying her American Indian name of “Swadeau,” which means “Dakota Girl” in the Arikara language.

References

How a Medical Psychologist Enhances Teamwork and Patient Care
LuAnn J. Stromme, DNP, FNP-BC

I was born and raised on a farm in rural North Dakota. I completed a Doctorate in Nursing Practice (DNP) degree as a family nurse Practitioner at North Dakota State University, after being challenged by 20 years as a registered nurse in neuro and cardiac intensive care, long term care, and dialysis. As the first DNP from North Dakota, I practiced at Carrington Health Center with clinical, hospital and emergency room experience. When a full-time position as a medical provider was offered at Spirit Lake Health Center (SLHC) in Fort Totten, ND in August 2009, I relocated to be closer to home and family. My husband operates a grain farm northeast of Devil’s Lake. Both of us are of German-Norwegian heritage, and together we have three children, all attending colleges in Minnesota.

Spirit Lake Health Center is located in the “heart” of Fort Totten, which is home to the Dakota Sioux Spirit Lake Tribe. I provide general medical care to all individuals, from prenatal to the “Golden Years” of the elders. Diabetes, heart disease, arthritis, asthma, infections, allergies, childhood illnesses, and pain management are the primary medical conditions treated. Depression, anxiety, chemical/ substance abuse, neglect and suicide prevention are the primary psychiatric conditions identified and treated.
Stromme, How a Medical Psychologist..., continued

Patient care at SLHC is coordinated among three mental health providers, five medical providers, nursing staff, diabetes educators, lab, radiology, dietician, and support staff. Dr. Michael Tilus, clinical and Medical Psychologist, is the director of the mental health facility which is a part of SLHC. Patient care is regularly coordinated to include both medical and behavioral health aspects to accomplish holistic goals. Collaboration among the providers is a very necessary reality for positive patient care. Dr. Tilus and the mental health staff share their documentation, following patient behavioral therapy, with differential diagnosis, recommendations, and medical care requests. Each patient is then referred to his/her primary care provider to rule out other organic or metabolic causes for their behavioral symptoms.

An example of how collaboration between medical and behavioral health professionals can be the true key to positive patient outcomes came with a 45 year-old Native American male who presented to the SLHC as a “walk-in” patient. I saw him for evaluation. This gentleman presented with bilateral erythematos/irritated/itching/draining eyes for several days. He had recently lost his job. He admitted that he had not taken his medication for depression and sleep for two to three months. He had relocated to the Fort Totten area to live with family, as his wife had left him and he was without finances. He admitted to struggling with his depression. As the patient was a “walk-in,” providers are asked to only address the immediate concern during this visit. The conjunctivitis would be treated, and the antidepressant would be prescribed. The patient had labs completed (CBC, UA, P8, TSH, Liver, Lipids) and his hypertension was recognized. He was scheduled to be evaluated by mental health staff ASAP, and to return to me for a health maintenance exam and lab results.

Within the two weeks following this initial visit, Dr. Tilus had evaluated this patient with a recommended admission as an inpatient for psychiatric evaluation and treatment for his severe, vegetative physiological depression. Upon his hospital release, this patient continued with psychological therapy and psychopharmacotherapy monitoring with Dr. Tilus, in addition to ongoing medical collaboration with me. Gradual improvement continued for this patient. Within three months, he was able to secure a new job and was a regular attendee at a health facility. This was a very positive step for this patient in rebuilding his life, self esteem, and ongoing, positive mental health. His major depressive disorder, hyperlipidemia, hypertension, and chronic psoriasis continue to be monitored monthly, with adjustments to his medication regimen as appropriate. What a rewarding experience for not only the patient, but also for the providers, when collaboration gives results like this!

I can only speak positively of how successful a medical psychologist working so closely with the medical providers has been for countless patients! With Dr. Tilus having prescriptive authority in Indian Country, his wealth of experience in behavioral health will continue to be even more valuable for positive patient care outcomes.

LuAnn J. Stromme, DNP, FNP-BC has been a Family Nurse Practitioner at Spirit Lake Health Center since August, 2009.

For a PDF of current and back issues of The Tablet IN COLOR go to www.division55.org/TabletOnline.htm
Author’s Note: The opinions expressed in this article are the personal opinion of the author, and do not reflect those of the Indian Health Service or the United States Public Health Service.

My name is Deb Hanson and I am a licensed clinical Social Worker; LICSW. As a native North Dakotan, I was raised north of Devil’s Lake on a farm and currently live west of Minnewaukan with my husband. We used to farm but lost much of our land in 1986 during the farm crisis, about the same time I started back to school. I was 36 and pregnant when I started attending the University of North Dakota. I graduated in 1993 with a bachelor’s degree in Social Work, and in 1999 with a master’s in Social Work.

I returned to school because I believe individuals and families who live in rural communities deserve qualified professional counselors. I wanted to expand the skills I had to help with the work I was already doing as a home visitor at Head Start, and later at Four Winds School.

Culture is very important here in the Northern Plains. My culture both colors and enhances my professional behavior here in Indian country. My father’s Welsh people were forced to the Northern Plains when the dominant Anglo Saxons migrated in and homesteaded. The Welsh retained much of their dark and swarthy complexion. My father had black hair and looked Native American, much like I do. Once when I was about eight years old and riding in the back of the station wagon with my siblings, a man came to my tall father and asked him if he had adopted a child from Spirit Lake Nation. He later told me this story, and said I should be proud of this. To this day Native Americans and White Americans will ask me if I am Native (It does make me proud).

My personal family culture is an example of the typical landscape for many local North Dakotan’s, who both live and work here in and around Indian country. Within Indian country, religious and cultural beliefs, practices, and ceremonies are critical to understand, appreciate, and support. My religious background includes being baptized Congregational, brought up in the Presbyterian Church, confirmed Episcopalian, and married and reconfirmed in the Lutheran Church. I use spirituality in my therapy; listening and being respectful of everyone’s beliefs. This background helps me understand differences in beliefs, including those of Native Americans.

I feel privileged and honored to have worked at the Spirit Lake Nation since 1995. I currently work with adolescents at Four Winds School three days a week, and for the last year have contracted at Indian Health Services Mental Health two days a week under Mike Tilus, Psy.D. I have found collaborating with all mental health workers within the community vital to serving the people.

I remember when I first started in 1995, being asked if I had any experience working with teens. I said I loved working with teens, as I had worked with a few, but wondered if I would be any good working with them on a full time basis. I loved it from the moment I began. The youth were so honest and kind, and willing to talk and keep themselves safe, if offered the chance.

I continue trying to do my best for a proud nation and their youth, who will be the future of the Spirit Lake Nation. My Intro to Social Work class at Cankdeska Cikana Community College is another way I can give back to the community and those who have helped me along the way. Five women took the class and all did well, hopefully beginning the next generation of Social Workers from within Spirit Lake Nation.

One of the first things we “outsiders” often do when starting to work within Spirit Lake is to try to do too much. A wise friend, who is a pastor from Spirit
Lake, took me aside and said, “Slow down or you will never last.” His wisdom and generous support have helped me maintain continuity for the people here.

One story of a mother’s struggle to raise her family demonstrates how availability of a medical psychologist can be helpful in this remote, frontier town. I first met Mary when she was 35, and trying to keep her family together after the suicide attempt of her husband. I was working as a family therapist for Village Family Services. Mary and her five children were understandably traumatized. The family was battling substance abuse, domestic violence, depression and anxiety.

Mary’s mother had left her with her grandparents as a young child but later returned with an adopted daughter. Her father would return to the home periodically, and physically abused her. The historical trauma interfered with her ability to learn the tools to keep herself and her family healthy.

Nearly ten years later, a police officer brought 45 year-old Mary to the Indian Health Service Behavioral Health Department office for a suicide assessment, after stopping her for driving erratically. Mary’s husband had moved out of the home, and she was struggling to raise another young child with a new boyfriend who had just left her. Dr. Tilus, being a medical psychologist, was able to perform a mini physical exam in his office, and was able to recommend she be brought to the emergency room for detoxification, referred for a drug and alcohol evaluation, and that she return to see me for counseling. We have never had this level of behavioral health provider in our isolated Indian Country who would be able to assess her active suicidal thinking and drug-induced mood disturbance, as well as to then collaborate with the Emergency Room physician for an emergent detoxification and transfer to an inpatient substance abuse treatment facility.

Another example of how availability of a medical psychologist has been helpful is in the case of an adolescent referred by Four Winds Special Education. Joe often arrived to our sessions flat and unemotional. He appeared to be an academically bright young man but struggled with making age-appropriate friends, was often socially awkward and occasionally behaved inappropriately. I referred him to Dr. Tilus, after he behaved inappropriately with me.

Dr. Tilus reviewed his medical chart history, conducted a full battery of psychological tests, consulted with his special education director and principal, and interviewed Joe and his mother on multiple occasions. He coordinated care with Joe’s Primary Care Physician to rule out any organic reason for Joe’s behavioral difficulties with a full physical examination, with laboratory, ECG, and MedTox. Based upon all of the information gathered, Dr. Tilus diagnosed Joe with Asperger’s Syndrome. He then made recommendations for behavioral skills training. He also coordinated services with the high school educational psychologist, to update Joe’s current cognitive status.

Being a medical psychologist, Dr. Tilus was qualified to suggest an antidepressant for Joe’s anxiety. Having then received full prescribing authority here in our clinic, Dr. Tilus has continued to monitor this medication and is gradually increasing the dosage to achieve maximum benefits. This has been a great asset to Joe’s care, as the IHS clinic is short-staffed, and Joe’s primary care provider has been on sick leave for a month. The primary care physicians now rely on Dr. Tilus’s judgment, both on diagnosis and medication recommendations.

Because he is a medical psychologist, Dr. Tilus was able to provide a large range of psychological and medical services to this young man. We are so happy now that Dr. Tilus recently was granted full prescribing authority here in our clinic. This fact alone will make our treatment options more available…

(continued on pg. 20)
Hanson, An RxP Model of Collaboration..., continued

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… and immediate, allow for face to face
collaboration between health care pro-
essionals, and save our clinic contract
health dollars.

Without a medical psychologist on this
case, Joe would have, no doubt, been
referred to an outside clinical psycholo-
gist for testing, with a wait period of 6
weeks and increased cost to the IHS
clinic. He would also have been referred
out to a psychiatrist, with local wait
times of two months or with travel to
Grand Forks, Minot, or Bismarck, with
wait times of two to three months. Joe’s
mother could not have afforded the
cost of this kind of care. This process
took almost two and a half months. But
given the legal problems that Joe was
potentially facing, Dr. Tilus wanted to
ensure that everything that could be
done was done, for Joe’s best care.

Joe’s continued therapy we me has also
improved because Dr. Tilus and I can
work together as a team toward giving
this young man the support he needs for
a better life. I am proud to be a visitor
for a brief time within this fine commu-
nity and to be able to work as part of
the mental health team at Sprit Lake IHS
Mental Health.

Deborah, Jones Hanson, LICSW is Vice President
of North Dakota’s National Association of Social
Workers. Deborah works for Country Counsel-
ing & Consulting, INC and contracts with Indian
Health Services and Four Winds High School.

Combining Western Medicine and Traditional Native Healing
Marissa Taylor, RN, BSN

My name is Ma-

rissa Taylor, RN,
BSN. I have been a
healthcare pro-
vider for 30 years.
I would like to
share with you my
experience in working with the Navajo,
Zuni, and Apache peoples. It has always
been my wish to work with the Native
American peoples. I am fascinated with
the spiritual aspect of health and their
mindfulness. My own personal beliefs
are that healing is within us, that our
brain is the most powerful organ of our
body, and that there is a relationship
between our body, mind, and spirit. So,
when the opportunity came to me, I
accepted a travelling assignment to go
to Ft. Defiance, Arizona. This is the
home for the Navajo, where I worked
for a little over a year.

My first three month assignment was in
the Family Care Clinic. In this clinic, I
worked with great people. I met Mary-
ann, a Navajo RN with whom I worked
closely. She gave me an excellent orien-
tation to my duties and responsibilities.
She seemed a reserved but very caring
person. She is liked and respected by all
staff and patients that worked with her.

Working in the clinic, I had very limited
time to talk to the patients, so my learn-
ning of the culture was limited. When I
started expressing my desired to learn
Navajo, my co-workers started teaching
me. We had a chalk board in the clinic,
and every day they would write words
and then short sentences. I practiced
saying the words and sentences on our
break times. Even Dr. Tutt (Navajo MD)
also was happy to say a few Navajo
words with me.

My experience in the clinic was wonder-
ful, but I wanted to be able to connect
more with the patients, so when I was
recruited to be part of the first Psychi-
atric Adolescence Care Unit (ACU), as a
staff registered nurse (RN), I accepted
the position. I was the first RN to be
hired, and also the first RN who had
experience in Adolescent psychiatry.
Our initial staff was composed of an
administrator, also our nurse practitio-
nor, a psychiatrist, a traditional practitio-
nor (Shaman), a school teacher, an art
teacher, RNs, and a mental health tech-
nician (MHT). I was, at first, surprised
that there was a Navajo medicine man
on staff. I quickly realized, though, that he was an integral part of the staff, and much respected by the patients and staff members. He performed many ceremonies, and even held some sweat lodge ceremonies while I was there. Navajo patients told me that they use both traditional and western medicines when they become ill.

As we went through numerous training sessions and meetings, I became fascinated and more interested in Navajo culture. I learned of many of the ceremonies performed (i.e. sweat lodge), and other traditional remedies used to help cleanse the body and take out the impurities. I learned that the Navajo people believe in the power of spirits to heal from within.

One of the traditional therapies used by the Navajo that I was most fascinated with was the use of the Sweat Lodge. I learned that the Ta’che’e’eh (Sweat Lodge) ceremony is spiritual, but not in the structured sense of religion. It is used to rid the body of toxins, and to be one with the prayer and environment to allow the body to heal. It is the first ceremonial structure built by Talking God (Navajo deity) to teach the Navajo the four seasons and the four stages of life, which are infant, adolescent, adult, and elderly. During the ceremony, the patient will enter and exit the sweat lodge four times to represent the four seasons and four stages of life. Inside the Sweat Lodge there is no light; I was informed that the lack of one sense (sight) makes the other senses more alert and allows the body to feel the spirits, and feel itself healing. The sweat lodge represents the universe.

Traditional Navajo healing focuses on the mind, body, and spirit. As such, I believe that all three are connected, and that an imbalance in one can cause an imbalance in the other two. With the Navajo, I was able to observe healing ceremonies that lasted for days. I came to understand that the beliefs of the Navajo and Zuni were similar to my own, from my upbringing in the Philippines. It was not uncommon during my childhood, that a “Quack” doctor would be called to cure an illness or injury with herbal therapy. The surprising thing is that often the cures worked.

Working with the adolescents and the parents was very challenging, especially when the patient needed psychotropic medication. Getting consent from the parent, usually the mother, was very difficult. I remember one time when our psychiatrist asked for my help in talking to the mother, and trying to get her approval for a mood stabilizer for the patient. I had already developed a good rapport with this mother, and the patient would only talk to me, with the exception of one MHT. The mother refused for her son to take this medication numerous times. I spoke to the mother and the son separately, and then both together. I patiently and carefully explained why the medication was needed. I also informed the mother of my own personal observations of the patient since he was admitted. I asked her to give it a try, and if after 2 weeks if there were no…

(continued on pg. 22)
Taylor, Combining Western Medicine..., continued

(continued from pg. 21)

... changes, then we would revisit the treatment. I also promised to update her daily about the patient's progress. The mother finally agreed, and we both talked to the patient, who in turn followed what his mother told him.

For the most part, the Navajo adolescent is very respectful of the adults/elders, and never did I hear them say curse words to us, unlike where I had worked before, where the adolescents would curse at the staff when they were angry. What is so amazing in caring for these patients is that once you had developed trust, it was easy for to implement their treatment plan. I felt a sense of relief, accomplishment, and happiness that I made a difference in their lives.

It was important to carefully incorporate both the Western and traditional Native medicines into an individualized plan of care for each patient. One barrier we had faced was the lack of a staff psychiatrist. The management attempted to fill this gap with a contract psychiatrist. This presented another barrier, since the contracts were for a one month period, causing a lack of continuity of care for our patients, since the psychiatrist changed every month. This setup resulted in a lack of trust from the patients, plus a loss of credibility. This is one of the reasons why I was always asked by our psychiatrist to assist in talking to the patient and family. There were also periods that we did not have a psychiatrist at all, and this often created a setback in providing treatment for the patients.

The arrival of Dr. Michael Tilus, Psy.D., MSCP, a clinical and Medical Psychologist was eventful. He brought knowledge, experience, and expertise to the clinical setting. He raised the treatment of the adolescent patients to a higher level of care. He increased the training for the staff, and implemented new and innovative treatments for the patients. He organized our patient’s treatment plans and activities. His leadership and support quickly gained the respect of all the staff, the patients and the management. He instituted a physical fitness program for our patients which corresponded with the Navajo traditional belief of running in the morning. He coordinated with clergy and priests from outside the hospital to come to our inpatient unit and provide religious services to any willing teenager. He established practice standards for our integrated, behavioral health staff with scope of practice modeled after separate licensing agencies. Dr. Tilus was known to drop in and visit staff, and check on the patients during the swing or graveyard shift.

When we had no psychiatry support, Dr. Tilus reviewed the teenager’s psychotropic medications, consulting with the psychiatric ARNP and other medical providers in the hospital. With a prescribing medical psychologist, patients didn’t have to wait for the arrival of the psychiatrist, or to accept the limited treatment resources of healthcare providers not experienced in psychopharmacology. Integration of psychology and psychopharmacology provided a higher quality of care for all mental health patients and their families.

My husband and I met some very good people during my time with the Navajo. My experience working with the Navajo is something I will always cherish and will never forget, because I learned so much and loved working with these children. I was also fortunate to have worked with very talented people like Dr. Tilus, from whom I learned so much. (Until that time I had never heard of a medical psychologist.) I hope someday, after completing my master’s Degree in Nursing, that I will again have the opportunity to work with the Native American people. There is so much to learn from them and their culture, which for me is fascinating. And, I hope to work with other medical psychologists like Dr. Tilus who, in my opinion, are the best trained and equipped to be the behavioral health leaders in culturally diverse populations like Indian country.

Marissa Taylor, RN, BSN is pursuing a master’s Degree in Nursing from Walden University.
I am an enrolled member of the Spirit Lake Nation here in Fort Totten, North Dakota. I continued my education away from the reservation, and obtained my master’s in Social Work in San Antonio, Texas. I returned to my home in 1981, and have been employed with a number of social work type agencies on the reservation for the past 29 years. All of my post graduate experience has been in the mental health field.

At the present time, I am a clinical social worker for the Indian Health Services (IHS). During these past 20 plus years, I have worked alone in a mental health office much of the time, though sometimes with a psychologist or occasionally with another social worker. The work has been rewarding, but very challenging at times. I have never had the opportunity to work with a psychiatrist on a reservation, and have only recently had the last three plus years to have a Medical Psychologist as my supervisor and Director of the Behavioral Health Program here at Spirit Lake. What a blessing to have this level of professional, with both psychological and prescriptive skills, in our office every day!

Being in a rural community and on a reservation, resources have been scarce to almost non-existent. Having limited resources in our local communities impacts how effective we can be with our treatment. Our local general practice physicians feel that to prescribe antipsychotic medications is out of the scope of their practice, so a referral must be made to a prescriber with expertise in this type of medication. When we need to arrange for psychiatric services for outpatients, or for medication follow-up after the patient is discharged from inpatient psychiatric care and returns to the community, the wait may be anywhere from three to six weeks for an appointment with a psychiatrist, if we are lucky, and two months or more if we have to look to our surrounding area.

“This has changed dramatically since Dr. Tilus arrived. We now have a Medical Psychologist who not only evaluates our patient’s medications and has prescriptive authority, but assists us in our more difficult cases with psychological testing and differential diagnosis consultation. We have established a system where my patients who are seeing me for therapy follow up with Dr. Tilus for their psychotropic medication management, to get their lab values reviewed, and to have a hands on mini-physical screening with all their vitals taken and reviewed. My patients have been extremely happy with this arrangement, and we are now seeing a significant increase in patient adherence to both coming to therapy and taking their medications as prescribed.

The lack of adequate alcohol and drug treatment in local Indian communities adds another tremendous problem in working with individuals having a dual diagnosis. Our people have to…

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Streifel, *The Perspective of...*, continued

(continued from pg. 23)

... travel hundreds of miles outside of the community for some of the necessary alcohol and drug treatment, leaving their family, school, and community support. This complicates the treatment plan, and typically family involvement never happens because of the distance and expense. Once patients discharged from substance abuse treatment return to the community, the proper support is then not there to help them maintain sobriety. So the revolving door swings back and forth, as we try to provide adequate treatment.

With the promise of prescribing psychologist services, the services to the people (Oyate) are improved greatly. Now, with a prescribing psychologist on staff, needed services of evaluation, diagnosis, and treatment with psychotropic medications can begin almost immediately, rather than having to refer out to psychiatrists, with patients going on long waiting lists. Almost all of our patients who have drug or alcohol problems also suffer from some anxiety, mood disorder or trauma. We now have the specialized ability to help our people who suffer with dual diagnosis problems.

I recently had one of my patients sent to the emergency room by Dr. Tilus because they were having a “drug-drug” interaction problem between their alcohol, amphetamine (or some other illicit drug use) and their prescribed medications. Another of my patients appeared to be suddenly slipping into a new major depressive episode and was having problems thinking. While in consultation with Dr. Tilus, we discovered she had relapsed in her alcohol misuse and had not been taking her diabetic medications as prescribed by her physician. Her glucose levels were extremely high, and she was getting more and more depressed, while drinking more and more alcohol. This is the kind of care we are now providing together, as a team with a Medical Psychologist on staff. Having prescribing psychologists available for our people will mean they will receive much needed services in a timely manner. With timely assessments and treatment comes faster recovery.

Another particular patient of mine comes to mind as another example. Just before Christmas, a 45 year-old male presented with severe, vegetative, psychotic depressive symptoms and signs, with an acute suicidal plan. After a ten day stay as an inpatient, he returned home and began counseling twice a week with me. He had been started on antidepressant, anti-anxiety, antipsychotic, and sleep medications at the hospital. Our local physicians were not comfortable monitoring or prescribing all these medications, which in the past has puts us and our patients in some jeopardy as we scrambled trying to find an appropriate professional to help us.

When this patient returned to the community, Dr. Tilus, our DNP (Doctoral level Nurse Practitioner) and I collaborated about his integrated treatment plan. The results have been astounding, both for us as a treatment team and for our patient. My patient continues to make progress in individual psychotherapy with me. Dr. Tilus administered a battery of psychological tests, performed a religious and spiritual inventory assessment, reviewed his current psychotropic regimen, and collaborated directly with our DNP in monitoring his other medical conditions of obesity, edema, and high blood pressure. Our DNP conducted a full physical examination, got him caught up on all his labs, did a baseline ECG, and consulted with both Dr. Tilus and I regularly about his other medical care. Dr. Tilus also sees him once a month, and reviews his medications, recently gradual tapering his previously prescribed sleeping medication and benzodiazepines, with the goal of stopping them as soon as it is clinically viable. Our patient has returned to work, received a promotion, lost weight, started working out again, improved his diet, renewed his childhood Catholic faith, been compliant on his psychotropics, and is mending and establishing new healthy boundaries with family members that he was never able to before. When I was stumped as
to what to do, all I had to do is walk across the room and consult with Dr. Tilus. This type of collaboration and support between professionals helps us to use our individual areas of expertise to the fullest, while reducing job stress.

I can’t help but think of the years when I tried to get help from, and have the patient monitored by, a psychiatrist at the State regional center in a nearby town. It was always so difficult to share information about the patient's progress, ask questions, or to have time to really talk about my concerns for the patient, being in separate agencies separated by miles. I cannot emphasize enough how wonderful it is to have a prescribing psychologist on board in the facility where I work.

If the challenges were hopeless, not many of us would hang around Indian Country. But our people have continued to survive and thrive through major difficulties down through the centuries. The history of our people is fraught with trauma after trauma, as we have striven to hold on to our traditions and to grow from our efforts to maintain our culture and way of life, even in the midst of the influence of the mainstream culture impacting us from every side. But the resiliency of the Native culture is what holds the fabric of life and meaning for us. Our traditions have been handed down to us from wise and strong leaders. Those of us who believe in the strength of our way of life continue to teach and help our younger generations learn and hold sacred our way of life, in spite of sometimes overwhelming odds. This resiliency and faith of the Indian families is what holds us together. We rely on one another for hope and faith that tomorrow will be better. I hope and pray that the medical psychologists who come to Indian country will be true healers who practice from a good heart!

Joanne A. Streifel, LICSW is a member of the Spirit Lake Nation at Fort Totten, North Dakota. Her Indian name is Wakagege sa winyan (woman who likes to sew). She has been with IHS for the past 6 years.

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Ever since I can remember, I have had an interest in helping people. I decided to pursue a career in pharmacy to be on ‘the front lines’ as a patient advocate. Even as a young pharmacy student, I was involved in public health through my involvement with multiple indigent clinics serving greater Omaha, Nebraska. It was through this rewarding interaction that I decided to pursue a career in public health, more specifically with the Indian Health Service (IHS). Working with the pharmacist recruiter for IHS, I isolated a great need for pharmacists in North Dakota. After much prayer, I felt a calling to serve the people of the Spirit Lake Nation near Devil’s Lake North Dakota.

I arrived at the Spirit Lake Health Center… my first day on the job as a brand new pharmacist with the ink still wet on my license. The sole pharmacist working at the clinic informed me that he has submitted his two week notice. Since that first day, I have developed as a person, a confidante, a pharmacist, and a clinician. We have built our pharmacy program to become a model within the Aberdeen Area. I have recruited and retained two exceptional clinical pharmacists. Together we provide services to approximately 4,000 patients annually. We have expanded pharmaceutical services to include management of several direct patient care clinics, enhanced pharmacy consultation services, provision of adult vaccinations, and involvement in countless special projects within the Spirit Lake Health Center.

We have been able to accomplish these improvements and establish an exemplary department through progressive thinking and priority placement of the patient and his/her needs. I have personally observed a great need for qualified behavioral health professionals in Indian Country. The high rates of suicide, comorbidities, and poly-substance abuse alone warrant the expansion of psychiatric services on the reservation. As a pharmacist, I appreciate the many nuances of psychotropic therapy, and realize the limitations of primary care and budgetary constraints. The myriad of antidepressants, mood stabilizers, and antipsychotics mandate great care with prescribing and patient monitoring. Often, these subtleties are overlooked in primary care, as progress is unable to be quantified by a lab test. Additionally, service unit policies and budgetary limitations do not always afford psychiatric referral for medication management services. It is timely to illicit novel strategies to address these needs in the provision of quality patient care.

I once again find myself in an era of change with a unique opportunity to enhance services on the reservation. I have had the pleasure to interact with a psychologist pursuing prescriptive authority. Our collaboration has been rewarding and has improved medication management for multiple patients.

We utilize a simple multidisciplinary referral process, whereby a patient will be referred from any of our direct care patient departments for psychologist evaluation. A patient may be referred back to primary care for further testing and diagnosis, following the initial behavioral health appointment. Often, the prescribing psychologist will make recommendations to alter pharmacotherapy, to improve patient outcomes. The recommendation is screened by pharmacy for appropriateness and drug interactions. Any pharmacy recommendations are communicated to the prescribing psychologist at this time. All communications are secured in the Electronic Medical Record.

A multimodal approach aligns patient treatment plans, to place the patient at the center of his/her medication regi-
Gunderson, A Pharmacy Director’s View..., continued

men. This multi-disciplinary management has proven beneficial to the patient, the provider, and the clinic flow, resulting in improved patient outcomes, reduced time to optimal treatment, and reduced side effects.

It has been my experience in IHS that we are constantly asked to ‘do more’ without a corresponding line item increase. Utilizing a prescribing psychologist is one example of creative problem-solving that optimizes patient outcomes and maximizes budgetary expense. I look forward to continued collaboration between the prescribing psychologist and the pharmacist.

Cynthia (Cindy) Gunderson is the Pharmacy Director at the Spirit Lake Health Center in rural North Dakota. She is a 2004 graduate from the University of Nebraska, Medical Center College of Pharmacy.

A Tag Team Approach with a Family Practice PCP and a Medical Psychologist
Candelaria Martin, M.D.

I was born on a Navajo reservation, and grew up in New Mexico. I come from a long line of traditional healers; I am the first to practice western medicine. My father tells me that growing up, all I ever wanted to be was a doctor. My mother tells me that in traditional custom you do not choose to be a healer, it is more that you are chosen for it. When coming to a new Indian reservation in North Dakota, I was fortunate to meet Dr. Mike Tilus, our clinical and medical psychologist, who enjoys collaborative care of patients.

While working with Dr. Tilus, I encountered a patient that exemplified why knowledge of psycho-pharmaceuticals is so important. My patient was a 35 year-old female who was being seen by another provider, then came to me in June 2009 for headaches, while on venlafaxine. She was being treated for depression with excessive anger, and had just gotten up to a therapeutic dose of 150mg per day. She rated her headache pain as a 7/10. She had a history of migraines but reported this headache was different. It was located in the parietal and temporal lobe area on the right, but was most severe in the forehead and eyes, feeling like an expanding water balloon just before it pops. She experienced nausea, tingling when she turned her head, and sparkling lights in her right visual field, similar to her migraines. But then the migraine did not develop. The decision was made to taper off the venlafaxine and start fluoxetine. Despite her mood issues, she was looking into getting pregnant again.

Next, she was seen in the emergency department (ED) for what was diagnosed as panic attacks from venlafaxine withdrawal. She responded well to lorazepam given in the ED. I then prescribed a small supply of lorazepam to use while increasing the fluoxetine. Consult was made at this time with Dr. Tilus to assist with management of what I thought I was treating as depression.

At follow up, she brought in old pills to be discarded, including hydrocodone, clindamycin, clarithromycin, and cyclobenzaprine. She had a history of being sensitive to medications, and had several listed intolerances.

She reported that she was crying a lot, and was easily triggered. These symptoms used to occur about every other month and had some association with menstrual cycles, but now they were more frequent, almost daily. Her husband reported that she kept emotions...

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... bottled up, then dwelled on things which would trigger sad/upset emotions at random times. She felt she did better almost immediately when she started the venlafaxine, then it seemed like it was losing its effect. After coming off the venlafaxine, the patient and family all agree she was worse than before she started the venlafaxine. There was not yet improvement with the fluoxetine. She soon went to the ED a second time, and was diagnosed with labyrinthitis. She was given lorazepam, ondansetron, a liter of normal saline, ziprasidone and hydroxyzine. She was tired, and had vertigo in a clockwise direction.

In consultation with Dr. Tilus, after his direct clinical interview of the patient and her husband, our working diagnosis then changed to a rule out of bipolar disorder. The patient’s mother was a professional Licensed Addiction Counselor who had a history of alcoholism, and successful treatment for bipolar disorder. We decided to discontinue the fluoxetine. Dr Tilus and I discussed options, including lithium (Category D); weight gain was the limiting factor for the patient, as well as needing to stop it before pregnancy. Lamotrigine (Category C) would be slower to take effect, but more compatible with her desires for pregnancy. Quetiapine (Category C) was considered for bedtime use. Divalproex (Category D) had possible weight loss as a benefit, but would need to be weaned off of before pregnancy due to potential neural tube defects, neonatal liver disease, polycystic ovarian disease and menstrual irregularities. She was anxious to get her mood symptoms under control, so divalproex was started. She admitted at that time that she had a prescription for phentermine for weight loss that she had not used yet, and was advised not to use it, as it could trigger a manic episode. Our first goal was emergent mood stabilization. Following that, we recommended biweekly individual psychotherapy, with additional weekly family therapy sessions. Patient and family were in agreement.

The following day after clinic hours, the patient’s husband contacted me to discuss urgent hospitalization. Since seeing her the day before, her symptoms had worsened. She had been unable to sleep for more than five to ten minutes at a time, and was desperate to sleep. She was constantly cleaning and working on the computer. Her family expressed their increasing concern for potentially harmful behavior. Although she was not violent, her irritability was worsening. Her husband found her burning sage, in much greater quantity than usual. The family was afraid to leave her alone, or to sleep themselves, for fear she might burn the house down. I called Dr. Tilus in the evening to discuss this emergent situation. We believed the patient needed emergent psychiatric hospitalization due to her clearly manic episode.

That same night, she was admitted to a psychiatric hospital for inpatient management. After a short two day hospitalization, the discharge diagnosis from the attending psychiatrist was Major Depressive Disorder with agitation. Both Dr. Tilus and I expressed concerns about this differential diagnosis, following this clearly manic episode. The attending psychiatrist continued fluoxetine, lamotrigine, and trazadone, and added quetiapine for sleep and anger symptoms. After discharge, it was noted that the quetiapine 50mg was helping with sleep and not “knocking her out,” but she felt a little foggy the next day. She had stopped taking trazodone because it made her too sleepy, and she felt like a zombie the next day. She was taking Compazine, as needed, for irritable bowel symptoms. She was still on the fluoxetine. She reported feeling like she needed to be doing something all the time.

The next month, I spoke with her. She reported she had not slept since noon the day before. Her daily routine was not being kept, and she felt her meds were not working well. She was advised to go back to her routine schedule, and take quetiapine 100mg at bedtime. The
next day, she reported she had been able to sleep, only getting up 2-3 times during the night, and was feeling better. Dr. Tilus and I felt the fluoxetine triggered the manic symptoms, because the bipolar was not yet adequately controlled. She continued to be very driven to get things done, in excess of normal (house cleaning, completing work assignments on the computer from home, washing the cars, prolonged conversations on the phone). She was fighting sleep, despite objectively being noted to have slurred speech and feeling like she had been drinking. The plan was to stop the fluoxetine, and increase quetiapine to 150mg. We also continued the lamotrigine and restarted the valproic acid that had not been continued after her hospitalization. She was also to start weekly couple’s therapy and individual therapy. Before the next visit, she decreased her quetiapine to 50mg at bedtime, and was having less hangover effect. She also cut back due to concern about the weight gain side effects. She continued to slowly titrate up on the lamotrigine. Her family was watching her closely and worried about hypomania, based on witnessed activities such as taking out the trash while doing laundry. She had begun individual therapy with an outside psychologist, as Dr. Tilus wanted to keep the couple’s therapy separate from the patient’s individual work. She reported a positive therapeutic alliance with her new psychologist, who believed, as the attending psychiatrist had, that she did not appear to be suffering from a bipolar spectrum mood disorder but was experiencing an agitated depressed state due to childhood trauma.

At the next follow up, she was taking the quetiapine 50mg at bedtime but there had been days that she stayed home due to being too tired to function. Her lamotrigine was still being increased to the therapeutic dose of 200mg a day, and her mood was more stable. About one week later, she called the ED to report a rash that was gradual in onset with rough texture, with red areas on her back, and was starting to spread. She denied hives, but had blister-like lesions above her buttock. The ED phone recommendation to her was to take Benadryl and to stop the medications. She stopped the lamotrigine, and was only taking the quetiapine and Benadryl. After about another 2 weeks, she stopped all medications on her own in pursuit of pregnancy. She continues to have mild mood symptoms, but no full relapse yet.

This is a case where two minds were definitely better than one in thinking through her drug intolerances, fear of side effects, differential diagnosis discrepancies, pregnancy concerns and her self-adjustment of medications. Dr. Tilus was there every step of the way. He recommended treatment choices, and reviewed the pros and cons of each, taking into account that this patient reported many side effects to medications, and was very fearful of side effects, making treatment more difficult. He took my calls after hours to assist in coordination of hospitalization, and to discuss the treatment options. Dr. Tilus always kept the patient’s long and short-term plans in mind.

As a family physician who also does obstetrics, I have to be a jack of all trades. There is no way for me to keep up on all the latest and greatest in psychopharmacology. Although I thought I was pretty good with psychiatric issues, I found out how useful having a resource for psychopharmacology like Dr. Tilus is, in the rural setting we work in.”

“As a family physician who also does obstetrics, I have to be a jack of all trades. There is no way for me to keep up on all the latest and greatest in psychopharmacology. Although I thought I was pretty good with psychiatric issues, I found out how useful having a resource for psychopharmacology like Dr. Tilus is, in the rural setting we work in.”

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Prior to beginning my training in clinical psychopharmacology, I had little reason to believe that two years later I would find myself tucked away from the rest of the world in Poplar, Montana. I was very content with my current position at the time, as an active duty Army psychologist. However, as we can all attest, things unexpectedly change.

During my second year of training at Fairleigh Dickinson University, I decided that I would leave the Army for several reasons. I had spent 27 months in Iraq. The Army did not have any formal policy in place to allow properly trained psychologists to prescribe. Also, it was likely that I would be placed in a supervisory position which would not allow me the opportunity to prescribe.

As the end of my tenure in the Army neared, I began the mad dash to find work that was consistent with my career goals and suitable to my personality. Fortunately, an “old Army buddy,” Massl Wyatt, encouraged me to consider working with him at the Ft. Peck Service Unit of Indian Health Service in Poplar, MT. At the time, I knew little about Indian Health Service and nothing about Ft. Peck and Poplar, Montana.

Although he tried to prepare me for where I would be working, not even Hemingway could adequately describe the remoteness and desolation of the area.

After a few conversations with Massl, it became evident that something great was about to happen within the Indian Health Service, and at this service unit in particular, with regard to RxP. The groundwork for a formal preceptorship had been laid. The Chief Medical Officer was supportive of prescribing/medical psychologists, as was the area behavioral health consultant. All that was needed were a few warm bodies looking to expand the breadth of psychiatric care at the service unit.

My Experience as a Prescribing Psychologist at the Fort Peck Unit

Bret Moore, Psy.D., MSCP, ABPP

...the model of collaboration between prescribing/medical psychologists and non-psychiatric physicians is one that works."

Other than a few small bumps in the RxP highway, the training went well. I saw 5-6 patients a day for medication management, and met weekly with either a general practitioner or internist for supervision. ‘Neither one of my supervisors were anything close to psychopharmacologists, but they did have a solid foundation related to understanding psychotropic medications and were well-rounded physicians with an impressive fund of medical knowledge.

The level of medical comorbidities, lack of compliance, and rampant substance abuse and dependence were my greatest obstacles during my training. Many of my patients were either diabetic or prediabetic, had a history of high blood pressure and/or kidney dysfunction, were active or past users of alcohol and/or drugs, and were on a list of medications as long as my arm. In retrospect, I think I took more time looking up possible medication interactions and medical diagnoses than I spent talking with my patients (contrary to what you learn in class, but often times necessary in practice).

Over the next year, my confidence as a prescriber grew. I hadn’t killed anyone, and it seemed like many of my patients were getting better. And I did all of this with the closest psychiatrist being three and a half hours away in Canada! Point being that the model of collaboration between prescribing/medical psychologists and non-psychiatric physicians is one that works.

Sometime in the early part of this year, I completed my preceptorship. Subsequently, I have been fortunate enough to successfully navigate the paperwork...
Moore, My Experience as a Prescribing Psychologist..., continued

process, and update my privileges at my service unit. As of April 1, 2010 (assuming this was not an elaborate April Fools’ joke), the New Mexico Board of Psychologist Examiners officially recognized me as a Conditional Prescribing Psychologist.

In mid-July of this year, my request for privileges to order my own medications and labs without the co-signature of a physician was approved by the medical governing body of my service unit. Although this is not an IHS wide policy, it does set a precedent for future service units within IHS, and provides guidelines for other psychologists who are looking to prescribe.

Today, I provide psychotherapeutic services to most of my patients, and have become more popular with the medical staff due to my becoming a new referral source for their “psych” patients. I now know what it’s like to be a prescribing/medical psychologist, and I like it. Better yet, my patients like it.

My experience as a prescribing psychologist with the Indian Health Service has been outstanding. Not a day goes by that I am not intellectually challenged by the complex cases I see. However, my time at the Indian Health Service has been emotionally and psychologically trying. The aspects that make being a prescribing psychologist so difficult. Many of my patients have multiple problems, live in abject poverty, have suffered emotional, physical, and sexual abuse as children, and see little hope for a brighter future. Ft. Peck, like many reservations in the Northern Plains area, is not the place for the faint of heart.

The future of RxP within Indian Health Service is bright. There are some very smart and dedicated people moving this collaborative effort forward. We are fortunate to have psychologists within Division 55, such as Beth Rom-Rymer, Kevin McGuiness, Robert McGrath, and Steve Tulkin, supporting this effort, as well as those in the “trenches,” such as Earl Sutherland, who is with the Crow Agency outside of Billings, MT, LCDR Mike Tilus, who is at Ft. Totten in North Dakota, and Dr. Robert Chang, who occupies an office next to me here at Ft. Peck. Both groups are important players in this effort, but I believe the latter need extra thanks for pushing this movement forward while serving in some of the most difficult areas in the country. Thank you!

Bret A. Moore, Psy.D. completed his doctorate in clinical psychology at the Adler School of Professional Psychology and the postdoctorate Master of Science degree in clinical psychopharmacology from Fairleigh Dickinson University. He is licensed as a conditional prescribing psychologist by the New Mexico Board of Psychologist Examiners and board-certified in clinical psychology by the American Board of Professional Psychology. He is the author and/or editor of four books, including Living and Surviving in Harm’s Way, Wheels Down: Adjusting to Life After Deployment, Pharmacotherapy for Psychologists: Prescribing and Collaborative Roles (recently released and co-edited with Bob McGrath, Ph.D.), The Veterans and Active Duty Military Psychotherapy Treatment Planner and Handbook for the Treatment of PTSD in Military Personnel. He also writes a biweekly newspaper column entitled “Kevlar for the Mind,” which is published by Military Times. His views and opinions on clinical and military psychology have been quoted on USA Today, New York Times, Boston Globe, NPR, BBC, and CBC. He writes a Psychology Today blog called The Camouflage Couch at http://www.psychologytoday/blog/the-camouflage-couch.
It was during graduate school in Minnesota that I first became acquainted with the notion of cross-cultural psychology. I heard about a young Mexican girl living in Minneapolis who was put on Zyprexa and hospitalized for several months, because she told the psychologist she sees the spirit of her deceased grandmother, and even speaks with her. This young girl reportedly had no negative symptoms of a thought disorder, and was otherwise functioning normally.

It was at that moment that I decided to dedicate the focus of my clinical work in psychology to striving toward culturally-sensitive care, and to do my part to ensure that the above-mentioned scenario would never occur again. I became particularly interested in the crossroads between psychosis and spirituality, and was passionate about ensuring that an individual not be labeled as thought-disordered for displaying culturally-normative spiritual practices.

“I became particularly interested in the crossroads between psychosis and spirituality, and was passionate about ensuring that an individual not be labeled as thought-disordered for displaying culturally-normative spiritual practices.”

Clearly, a clinician’s own background can affect her perception of the presentation of a patient, as well as treatment decisions. Therefore, some of my personal background is provided here as a reference. I am the descendant of the Blackfoot Tribe from the Saskatchewan area of Canada, via my great-grandmother. She was given a Catholic name and married a French Canadian, which is making genealogy and enrollment for me quite difficult. My own grandmother was raised in Michigan during a time when it was shameful to be Native, so she fiercely denied her heritage, cut her hair short and dressed Western. As a result of this shame, I was raised in the Western culture in Minnesota. However, stories of our heritage, pictures of our relatives, and the proximity with many Ojibwe and Dakota tribes has helped keep my heritage alive for me.

Although raised Christian by my mother, which has given me Christianity as a strong base, I have studied and practice traditional Native American ways of the Northern Plains and Woodland Indians. This belief system has allowed me to communicate with and understand my Native American colleagues who are healthcare providers, as well as my Native patients. Often when I meet my patients for the first time, they are only prepared to meet with a Western provider and discuss merely Western diagnoses. However, assessing for level of acculturation and personal belief systems of my patients is one of the initial tasks I perform as part of the diagnostic process. Sometimes after realizing my willingness to discuss Native spirituality, a patient will tell me that they personally do not believe they have an organic mental illness, but that their symptoms are being caused by some other external source. The differential
diagnosis at this time is critical, and I have developed some specific hallmarks to assist in that process.

Given my interest in cross-cultural psychology, my first job after graduate school was at the Grand Portage Chippewa Reservation in Northern Minnesota. Grand Portage has a small clinic where the physicians from the local town come once per week. I established a working relationship with the physicians, who soon asked if I could see non-Native patients.

After three years of working directly and only for the tribe, I decided to leave the reservation and open a private practice in order to service the entire county, including the reservation. My rapport continued with the five family-practice physicians in the county. However, I saw a serious gap in the provision of psychotropic medications (Minnesota reportedly has only one pediatric psychiatrist for the Northern half of the state, making wait times for both children and adults as much as six to nine months!). My knowledge of psychotropics at the time was cursory (the coursework provided in our doctoral program at Argosy University in Minneapolis), but even so, I often encountered patients whose medication regime was concerning (i.e., polypharmacy with serious side effects and very little symptom relief).

It was a dark winter day in February, when I received a colorful brochure from Nova Southeastern University in Ft. Lauderdale, Florida for a bi-monthly, fly-in program in psychopharmacology for doctoral-level psychologists. I saw the program not only as a wonderful opportunity to get out of the frigid weather, but also to combat my professional isolation and gain knowledge in psychopharmacology that I could bring back to our small community.

I started the program at Nova in the fall of 2004. My practice almost instantly benefited from the information I gained in the program. I was able to start educated discussions with my patients about their psychotropics, such as what a medication was meant to do (some patients said they did not know why they were taking a medication!), and what action it was taking on their brain and body. I was also able to answer many of the ever-important questions about side effects.

My first practicum for the psychopharm program was with a family practice physician in southern Minnesota, who had such a knack for psychotropics that his practice had become about 90% psychiatric. His patients raved about him, and said he had helped them when no other doctor had. I was able to take the invaluable knowledge I gained from this physician back up to Northern Minnesota, and share with the family doctors in the area. Although it was a slow process for the physicians to learn to trust my input, after about two years of collaboration, they did come to accept many of my suggestions for medications. Some of the physicians began sending me every case note from doctor visits my patients had with them, which was immensely helpful.

After much thought, I decided to expand my professional horizons by pursuing prescription privileges in New Mexico. In accordance with my professional experience, I applied to the Indian Health Service, and was offered a job in Taos, NM. The service unit was very excited to get a psychologist with RxP training who wanted to pursue the ability to prescribe.

The staff in Taos consisted of several family physicians, a physician assistant and many contracted specialists, including a psychiatrist who came two times per month. The psychiatrist was gracious and supportive of me privately, but warned me that his colleagues in New Mexico were vehemently opposed to RxP.

Working at the clinic was a wonderful opportunity to be in a primary care setting and have nearly full access to a patient’s medical information, as part…

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... of my decision making process for prescribing. The medical staff was very pleased to have a mental health provider available at all times (we were often pulled over to the medical side of the clinic when patients began to cry, or they asked for our services), and I was grateful to be able to ask their opinions and collaborate with them dozens of times throughout the day. We had staff meetings three times per week that allowed the behavioral health and medical departments to update each other on critical patients.

One of the most useful collaborations between our two departments was working with patients with chronic pain. The staff decided that ALL patients with chronic pain would be made to sign a pain contract, and that one of the requirements would be regular behavioral health appointments. I would take the opportunity with these patients to fully explain the dangers of opiates, and work on alternative methods of pain management, including psychotropic options such as Cymbalta. In several cases, we were able to wean the patients completely off pain medications. If patients missed behavioral health appointments without a valid reason, they were discontinued from their pain contract.

Another helpful collaboration between the two departments focused on patients with anxiety who were taking chronic benzodiazepines. They were also required to make regular mental health appointments. Most of these patients were able to wean off of chronic benzodiazepine use through behavioral health techniques or alternative psychotropics such as gabapentin. The medical staff was relieved, and the patient ultimately benefited.

“Most of these patients were able to wean off of chronic benzodiazepine use through behavioral health techniques or alternative psychotropics...”

While there are many factors to take into consideration when prescribing psychotropic medications, I have found the following particularly important when treating Native American patients:

• Is there a substance abuse history with the patient or anyone in the family?
• Is the patient overweight?
• What is the patient’s blood glucose? What about family members?
• Is there family opposition to psychotropics due to cultural reasons?
• Are there financial stressors in the family that may lead to medication diversion?
• Are there psycho-social factors in the home that would make it difficult for this patient to follow a regular medication regimen?
• Does this patient need a referral to a physician or a spiritual healer?
• Is this patient going to participate in cultural activities that could interfere with medication consumption, metabolism, or absorption?
• Will the patient be taking non-prescription substances that could adversely interfere with the psychotropic (i.e., peyote)?

Of greatest importance, however, in my practice of prescribing medications for Native American patients has been rapport, and taking time to understand the presenting concerns of the patient as they see them. The ultimate decision about a medication trial needs to be mutual between the provider and the patient, with much consideration given to possible side effects, health, family, and cultural factors. When the decision is mutual, I have found the patient to be more willing to take partial responsibility for negative outcomes to medications, and to have a greater willingness to try alternative medications/treatments.

During my tenure at Taos, I completed all of the practicum requirements and the PEP requirement for New Mexico licensure as a Conditional Prescribing Psychologist, and obtained the license in September of 2009 (along with a DEA
license). Once I was fully up and running, the collaboration at Taos and the ability to use the EHR (electronic health record) system made the prescription process very seamless. I was able to order lab work, and then look it up from my desk. I could also look up other test results for my patients (including those from outside clinics). Lab results such as blood sugar, lipids and liver function tests (LFTs) were particularly important. Often, patients could not remember their medical history, and that was available to me as well. Whenever I had a question about a patient's medical history that was not readily evident, I could usually speak with the provider immediately. Pharmacy was good about reminding me to keep costs down; I did, at times, have to rationalize moving away from the IHS formulary (which is quite dated for psychotropics), but in the end we found an amicable middle ground.

I can’t say enough positive things about my brief, 18-month experience at Taos. Unfortunately, the tribe decided to take ownership of the behavioral health program, and I very much wanted to remain within IHS. I was asked to transfer down to the Mescalero Apache service unit in southern New Mexico because the community was suffering from a suicide cluster, and their psychologist was retiring. I accepted this difficult assignment for moral, not professional, reasons.

Mescalero is a very different service unit from Taos. In Mescalero, the previous psychologist was a master’s level practitioner who had formed a strong alliance with the Center for Rural and Community Behavioral Health which is affiliated with the University Of New Mexico Health Sciences Center. Psychiatrists from UNM were providing extensive amounts of tele-psychiatry for the Ruidoso and Mescalero school-based clinics, as well as the Mescalero Behavioral Health program. All of the aforementioned facilities had tele-health equipment which they purchased through grants. Apparently, both the psychiatrists (who were based at UNM offices in Albuquerque) and the recipient facilities were able to bill for this service. Adult, pediatric and substance abuse specialists were made available.

I met the director of this rural behavioral health program when he visited Taos several months earlier, and was told by him that the psychiatrists at UNM are strongly opposed to RxP. Upon my arrival at Mescalero, I was informed that this director would be my clinical supervisor, but that he was not willing to sign off on supervision hours for my prescribing license. In spite of being the Behavioral Health Director for Mescalero, my opinion on the clinical needs of the community was met with strong opposition.

I have tried very hard throughout the training and education process of RxP to maintain rapport with psychiatrists. It was very difficult to find physicians willing to take me on as a practicum student, and I often had to look for very independent and forward-thinking clinicians. I have been very fortunate in this process to learn from outstanding healthcare providers. I believe that in some respects the unpopularity of RxP among physicians gives those of us seeking supervision the opportunity to look for cutting edge thinkers willing to sacrifice collegial popularity in order to improve patient care.

While my current professional placement remains ambiguous, I continue to be dedicated to and supportive of the training of psychologists to obtain prescription privileges. I believe the process of licensure preparation is professionally invaluable, regardless of whether the provider ultimately obtains full prescribing authority.

Dr. Mimi Sa currently holds a conditional prescribing license in New Mexico. She has served exclusively in health shortage areas, and primarily with Native American patients, for the past 10 years. She has been a National Health Service Corps provider, and recently received recognition by the Indian Health Service for her participation in the suicide emergency at Mescalero.
The study and practice of psychopharmacology takes place in a variety of contexts far from research laboratories. Most people I talk to who live outside of Maine have never heard of the Passamaquoddy Tribe. Some are even surprised to find out that there are American Indian reservations in the state of Maine.

As a clinical psychologist serving in the US Public Health Service (USPHS) Commissioned Corps, and assigned to the Indian Health Service (IHS), I traveled to Washington County, Maine to work for the Passamaquoddy Tribe on the Sipayik (Pleasant Point) reservation. The Sipayik Passamaquoddy (People of the Dawn) live on a peninsula at the eastern tip of the United States. Canada is a short, but difficult, canoe trip across Passamaquoddy Bay. The Pleasant Point Tribal Health Center (PPHC) serves the medical and behavioral health needs of the 2,000 or so community members who live on or near the reservation.

Washington County, Maine is one of the poorest counties per capita in the United States, and unemployment among the Passamaquoddy is estimated at 68%. Many tribal members rely on seasonal labor to eke out a living. Clamming and fishing, logging and brush tipping, blueberry raking and construction are physically strenuous, and can result in injury after years of punishing the body. Physical and psychological pain often accompanies years of poverty and oppressive living conditions. Efforts to alleviate pain and suffering have lead to the discovery of medicinal plants and the manufacturing of modern pharmaceuticals.

In the late 1990s Purdu Pharma began to aggressively market the opioid analgesic OxyContin, a “break through” (“safe and effective”) drug for the treatment of pain. OxyContin was heavily promoted and welcomed in Washington County, Maine, and primary care providers at Pleasant Point Health Center (PPHC) also embraced it. Well-meaning physicians with good intentions began prescribing OxyContin and other opioid analgesics, in an effort to treat chronic pain that many of their patients presented with. There appeared to be little awareness or concern for potential risk of drug dependence, diversion, and abuse.

When I arrived at the PPHC, stories of Oxycontin abuse were making headline news on television, and in newspapers and periodicals throughout the U.S. Washington County, Maine was one of a few rural areas (rural Appalachia being another) identified where this problem was severe. Although the Sipayik reservation appears isolated in many ways from the communities that surround it, poverty and addiction easily cross boundaries.

I had worked in a health care system that not only divided providers of physical health from mental health, but also practitioners of mental health from substance abuse counselors. Barriers between “specialists” were not serving our patients well.

At PPHC, an opportunity to tear down some walls presented itself in the unexpected form of OxyContin and prescription drug dependence. For OxyContin did not come alone, but brought family (Dilaudid, Vicodin, Percocet and Percodan) and friends (Xanax, Ativan, Klonopin and Ambien). Soon after, methadone and buprenorphine joined the party to help clean up. Pain-generated anxiety and anxiety-exacerbated pain and depression soon settled in.

As in many poor, rural areas throughout the U.S., Washington County has difficulty attracting and maintaining physicians, psychiatrists in particular. Mid-level health care providers, family nurse practitioners and Physician Assistants, provide much of primary care medicine, including the prescribing of psychotropic medications. Patients in rural areas have
Martinez, Medical Psychologist..., continued

relied on their primary care providers to prescribe prescription medication for the treatment of physical and psychological pain. But many of these prescribers were discovering that their treatments were generating new and, often, more difficult problems. Questions about drug-induced anxiety and depression, along with questions about drug seeking behavior, began to arise more frequently, as did questions about withdrawal symptoms, detoxification and residential rehabilitation. Discussions and consultations increased between providers of what was once considered as three separate health care services.

At Pleasant Point, a behavioral health team was established in a collaborative effort to address these problems and meet the needs of community members, by providing a holistic approach to health care. It was out of these collaborations, and through establishing working relationships with other health care providers, that I discovered the need to expand my understanding of psychopharmacology. As questions regarding medication side effects, drug interactions and mechanisms of action arose, it became clearer that I would be of much greater service to my colleagues and our patients if I had a broader knowledge of psychopharmacology.

In 2005, as a member of APA Division 18, Psychologists in Public Service, I was afforded an opportunity to apply for a scholarship to Alliant International University’s Postdoctoral clinical psychopharmacology Program. I feel very fortunate to have been selected for the scholarship, as one of the first psychologists to express an interest in the program. In the August of 2006, I began the rigorous 28 month course of study that culminated in receiving the master’s of Science degree in December, 2008. A year later I passed the APA Psychopharmacology Examination for Psychologists (PEP).

“... given my current understanding of clinical psychopharmacology, I am in a much better position to help bridge the gap between primary care medicine, addiction and behavioral health.”

Currently, I am considering options for and barriers to acquiring prescriptive authority with the possibility of prescribing on the Passamaquoddy reservation in Maine.

In the meantime, given my current understanding of clinical psychopharmacology, I am in a much better position to help bridge the gap between primary care medicine, addiction and behavioral health. Although I cannot prescribe medication, I can influence the decisions that other prescribes make regarding which medications to give or to take away. My knowledge enables me to contribute to the safe and effective practice of clinical psychopharmacology at our health center, where many patients present with co-morbid illnesses.

Tribal members participate in Passamaquoddy culture and spirituality in a variety of ways, and to different degrees. Passamaquoddy people have great respect for their traditional cultural and spiritual practices. Tribal members who suffer addiction show respect by not participating in most spiritual practices, but by doing so they are cut off from the healing benefits of those spiritual practices. By bringing a team of health care professionals together and treating addiction holistically, the possibility arises for some tribal members to reconnect with their traditional spiritual/healing practices that will help them maintain healthy physical and spiritual lives.

Jack F. Martinez, PsyD, MSCP, CCS has served in the US Public Health Service Commissioned Corps, on assignment to the Indian Health Service. As a Commissioned Corps officer, Dr. Martinez has deployed to Florida, Mississippi, and Minnesota on disaster response mental health teams. He completed a postdoctoral master’s in clinical psychopharmacology from Alliant International University in 2008.
In April of 2010, I arrived in Fort Thompson, South Dakota, my first time in the state, to begin a position with Indian Health Service (IHS) where I would work on my two preceptorships toward my licensure as an RxP psychologist.

Fort Thompson is a “town” of under 1500 people per the 2000 census, most of whom are Native Americans of the Crow Creek Sioux. The county where it resides, Buffalo County, is the poorest county in the US. Although the county may be poor financially, it is rich in its land. Much of it is located along the beautiful Missouri River where the rolling hills are verdant with wild grasses, scattered trees and miles and miles of ranch land where horse, cattle and buffalo laze and graze. As you leave the river border, it stretches out with the flatness of the true prairie vision.

South Dakota, I have found, is a state of many extremes. From the bluest of skies with circling hawks, squawking pheasants and a quiet peacefulness, to violent storms that show up in less than an hour. In my first two months here I experienced heavy hail, torrential rains, tornadoes setting down nearby, high winds and lightening storms that would put many firework displays to shame.

The closest “town” is Chamberlain, of approximately 2500 people and but one grocery store. The next closest “city” is the capital, Pierre, with just over 11,000 people. It takes a little less than an hour to drive to Pierre, without gas stations or anything else, for that matter, but ranch land.

Organizing is very different here for this former city slicker. There are no dry cleaners but after some effort I discovered pick up points, one of which is at “Mac’s Corner,” a tiny general store with the cheapest gas around! Mac’s Corner is also by the high and middle schools, where I work two days a week. However, it can take one to two weeks to get your cleaning back, depending on what day of the week you drop off – so much for same day service. Formerly, I could walk to Starbucks; here the closest one is one state away!

Fort Thompson is home to a single, small general store where I can get necessities like milk, some fruits and vegetables, and other basics. There is, of course, a casino where I’m told the food is pretty good. There is also an assisted living home, a small motel, some kind of take out store that I haven’t visited yet, a community center, the usual fire and police departments, and a Boys and Girls Club.

I live in government housing, right on the property where the Indian Health Services (IHS) building is located. At shortly before 8:00 a.m., the fourteen family home doors open, spilling out the workers, including myself, who live here. Most weeks, my car never leaves the garage until the weekend, when I typically drive to Pierre to get groceries and run any other errands needed for the week. There is no home mail service, so lunch is spent walking my little Westie to the Post Office to pick up the mail.

The people are incredibly friendly and helpful. I have been welcomed by many of the Native people, who have eagerly shared their ways with me. I have participated in a small sweat and attended a pow-wow, where I tasted Indian bread for the first time. The dog, to her surprise, often goes leashless, unlike in the big city. There is no dog licensing here, either. And speaking of dogs, there are packs of wild dogs roaming through from time to time.

The decision to work in IHS was not made easily. Approximately five years ago, I enrolled in the MS in clinical psychopharmacology program at Fairleigh Dickenson University. My decision was based merely on my desire to gain knowledge in this area, and not with an intent to head off to parts unknown. I had always been in favor of psycholo-
Hartnell, Journey to RxP Psychologist..., continued

gists gaining prescriptive privileges; it made sense to me, given how much coordinating with primary care and other physicians I typically was doing. Often physicians would rely on my recommendations, as we would coordinate care for patients.

But as I was completing my psychopharmacology degree, the business climate in Madison, WI, where I had worked in private practice for years, changed. I incurred a large loss of business and believed the decline was going to continue, and likely exacerbate, long into the future. One day it came to me- Why not go and complete my training, and work somewhere as an RxP psychologist? Thinking of no reason as to why not, other than my fear factor, I began the application and negotiations for work in Indian country.

IHS, like the Department of Defense, is a federal agency that allows for people with psychopharmacology training to practice RxP, regardless of what state they may reside in. It was an opportunity to complete the 80 hour medical preceptorship and the 400 hour supervision, while working as a psychologist. It was a new challenge, and an exciting one. And the icing on the cake for this former private practitioner was a benefit package and paid vacations!

So that’s how I came to arrive in Fort Thompson that April day less than three months ago. I will soon complete my 80 hour preceptorship, primarily under the guidance of a wise and experienced GP. The patients he sees are medically very complex. Most have diabetes, hypertension, hyperlipidemia and other health conditions. Many have alcohol and/or drug issues as well. Unemployment is significant here and there are few options for many, which is incredibly sad. Families are generally multi-generational, with as many as 17 or 18 people living in a small trailer or pre-fab home. There is a strong sense of pulling together as a family and “stepping up” to help each other out, mostly from love and somewhat out of necessity.

My first day, in fact my first patient, was a toenail removal. I almost needed removal myself. But by the third, and last, such patient of my rotation, I was a trouper about it. Many of the medications that were such a struggle in studying for the PEP, as they were out of my discipline, are now locked in forever. I shall never forget metformin as a diabetic medicine! I have listened to hearts and lungs, taken blood pressures and interviewed patients while waiting for the GP to join us. I have held some hands some when painful procedures were performed. I have gotten to know some of the patients who have returned for follow up while I have been there.

There have been a couple of emergency patients, one who was sent by ambulance to the hospital in Chamberlain. The GP has been patient in explaining how he considers caring for a particular patient, and has welcomed my suggestions when there has been psychiatric overlap with a patient. There is a freedom here to treat patients without the HMOs and insurance companies breathing down your necks. That doesn’t mean there are no restrictions on care, but it does appear more like the medicine of former years, …

“There is a freedom here to treat patients without the HMOs and insurance companies breathing down your necks. That doesn’t mean there are no restrictions on care, but it does appear more like the medicine of former years, …”

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Standing Rock and Other Motivations for Becoming a Medical Psychologist
Anthony Tranchita, Ph.D.

I submit this article as a clinical psychologist who has chosen to start walking the path toward Medical Psychology. I was skeptical at first, and honestly needed some coaxing to come this way. My experiences in the United States Air Force and United States Public Health Service led me to overcome that skepticism, as I could clearly see some of the barriers faced by patients seeking psychological and psychiatric care. As I write this article, I am about a year and a half into a master’s degree in clinical psychopharmacology, which will give me the skills to provide what I see as a needed service for my patients, and the ability to be licensed and credentialed to prescribe.

Much of my reticence to come down this path had to do with the reasons I decided to become a psychologist in the first place. Professionally, I came into the field knowing that I wanted to work with people, and that I wanted to develop collaborative relationships with people, leading to long-term positive changes. I saw medication as part of the process, but not necessarily a part in which I wanted a direct role. So, when I started hearing about medical psychology in my internship with the United States Air Force, I was interested but, truthfully, not for very long. I was wary that in going the medical psychology route, my life would become a hamster-wheel of 15 minute appointments, with the main goal being a prescription at the end. This did not seem to match what my goals were in becoming a psychologist. I am still wary of this possible outcome, and am hopeful that I will still be able to practice across the breadth of psychology, rather than becoming the “depression meds guy.”

However, in seeing the experience of many of my patients, I started thinking that it is a better road for at least some of us to travel. My work assignments, mostly by design, have always and will likely always be in the classification of “rural.” I prefer to live in small towns, with close access to outdoor activities, as that is how I maintain my mental health. There are many advantages to working and living in environments like this for myself and my family. However, working in this type of setting always carries a bit of difficulty accessing psychiatric referrals for patients.

Lest there be concern that this may turn to a partisan discussion against psychiatry, I assure you it is not. Nothing would make me happier than to collaborate with psychiatrists regularly. I can think back to experiences in my graduate school training and my internship, with psychiatrists who taught me a great deal about working with people and about mental health practice. The problem in trying to care for my patients, is that those contacts seven years ago were among the last regular contacts I have had with these highly trained and important medical professionals.

Soon after coming out of residency, I started working at a small Air Force Base in Oklahoma. Being fresh out of residency, I had all kinds of ideas, some of which were good and useful, others maybe not so much. However, one thing I came out with was an understanding that mental health professionals working as consultants in primary care seemed to provide positive results for patients and reductions in costs. We were able to get such a practice started in the primary care clinic at my first “real” job. This job provided me with many lessons, one of the first of which probably led me on the medical psychology path, on which I now find myself. I met with a patient, performed a problem-focused assessment, and made some recommendations to the patient. One of those recommendations was antidepressant therapy. I then went
back to the provider who referred the patient, repeated that recommendation, and was then asked, “OK, what med do you think would work best?” Starting a new consultation service, I wanted to come off as competent, so I made some non-committal noises that I hope helped me sound intelligent. I realized on that day, that if I wanted to work in a collaborative medical environment, I had better broaden my education on medications.

The next job I took was at a residential treatment center for Native American adolescents diagnosed with substance misuse disorders. The center is located on the Standing Rock reservation in South Dakota. We treated patients from many locations, the majority of which were from North and South Dakota, Nebraska, Iowa, and to a lesser extent, Wyoming and Montana. Obviously, we had a very large catchment area. But a common theme across the adolescents was that most came from rural and/or reservation settings.

I went to Standing Rock relishing the opportunity to make a difference in a population that is often classified as medically underserved. I was also aware that suicide rates in the group of adolescents with whom I would be working was very high. After arriving, I started tracking diagnoses of the patients we worked with. Across the two and one-half years I worked there, more than half (approximately 60%) of our patients met criteria for a co-occurring mental health diagnosis along with the substance misuse disorder. It was also entirely too common for them to endorse suicidal ideation, or to have a history of suicidal behavior. In previous practice, I had placed faith on one of the predictors of suicide being a completed suicide by a friend or family member. This supposed predictor was almost meaningless with this group of adolescents as, sadly, it was a rare occasion in an assessment when I would ask, “Do you have a family member or friend who has attempted or completed suicide,” that the answer was “no.”

While working in this treatment facility, the closest psychiatrist was more than 100 miles away.

While working in this treatment facility, the closest psychiatrist was more than 100 miles away. Access to any medical care, other than emergency medicine, was 50 miles away. Because the facility I worked in was a residential treatment center, we would provide transport for those patients while they were in our care. Consultation with providers for psychotropic meds usually consisted of writing a letter explaining my clinical perspective and my recommendations to the pediatrician or psychiatrist. I would send this letter with the staff member responsible for transport that day. This was not a style of communication that is ideal, but we did what we could.

When the adolescents we served would return home, there were many barriers to continued psychiatric care. Many families faced the same issue of a lack of a local psychiatric provider, and did not have access to resources to transport them that 100 miles or more. Or if they did have access, the immediate emergency had passed after a month, and they decided not to go, only to have the emergent symptoms occur again at a later point.

This last winter, I transitioned jobs again, back to an Air Force medical treatment facility in North Dakota. While I would classify where I am now as being less rural than my previous jobs, the patients I refer for psychiatry often still face 4 to 6 week waiting lists. As part of my experiences as a psychologist, both past and present, I have generally focused on doing psychotropic med management with consultation to general practitioners, physician assistants, and nurse practitioners, those providers from whom reports…

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I was fortunate to have started my tenure with the Indian Health Service on the Turtle Mountain Reservation as a staff psychologist. The reservation is home to a band of Chippewa Indians in the northern part of North Dakota. The mental health department was well staffed with a group of dedicated providers. The office had six licensed providers, two mental health technicians and a psychiatrist. This allowed the ability for the reservation to have on-call mental health service without over burdening the staff. The caseloads were always full and complex, but they were manageable. I was always busy, but rarely overwhelmed.

As I was about to complete my third year at the Turtle Mountain reservation, I deployed for two weeks as a Public Health Officer to the Standing Rock reservation to assist with a suicide epidemic. Standing Rock reservation is occupied by a Lakota band of Sioux Indians. The reservation straddles the North Dakota and South Dakota state line. The reservation unfortunately ranks high in suicide prevalence, compared to other tribes in the United States. Between the years of 2004 & 2005, Standing Rock Tribe suffered 26 suicides from a population base of 8,500. The overall rate for suicide death in the United States in 2004 was 10.9 per 100,000 people. The suicide rate on the Standing Rock Reservation in 2004 was 176.47 per 100,000 people, 17 times the national average.

Standing Rock was a vastly different experience from what I had first been exposed to on the Turtle Mountain reservation. The populations of the reservations were similar, but the Turtle Mountain reservation is one of the smallest in the country, and everyone was compacted closely together. Standing Rock reservation has been compared to the size of Connecticut. Whereas the Turtle Mountain reservation has one major school system, Standing Rock has eight school systems to establish connections with. The Standing Rock mental health department was also dramatically different. There were only four staff members, and just two of them were licensed. There was no clerical staff to assist with scheduling, and no psychiatrist to manage medication issues.

I had come to rely heavily on the psychiatrist on the Turtle Mountain reservation. On Standing Rock, patients had to drive seventy miles or more for an appointment with a psychiatrist. Due to the lack of a psychiatrist being easily accessible, patients on Standing Rock generally only visited the psychiatrist once. The local Standing Rock medical staff would then attempt to continue regimen. Many patients lacked the funds to travel such a long distance for a psychiatric appointment, and relied entirely upon the medical staff for all of their psychotropic medication prescriptions.

I knew that something needed to change in order to help better meet the needs of the people on the reservations. I had heard the debates about the possibility of psychologists prescribing psychotropic medications. When I realized that some parts of the country would never receive adequate mental health care, I became a proponent of the prescribing psychology movement. When given the opportunity to pursue a post-doctorate master’s degree in psychopharmacology, to start the journey to becoming a prescribing psychologist, I quickly agreed.

The suicide numbers did reduce after my deployment. But a pessimistic Stand-
ing Rock elder related her belief that all of the suicidal people had merely died, and she dreaded the cycle returning.

During my deployment, the Indian Health Service’s Standing Rock mental health director resigned, placing in motion my application and acceptance of the director position. It was a difficult decision to leave the Turtle Mountains, but this was my first opportunity to accept supervisory duties. I was sold by a regional administrator’s vision of my ability to impact a region, instead of a caseload, with the new assignment. The job description of a mental health director is what I thought I was accepting. I also became a salesman, and at times a pitchman, for the ideas and funding I needed in order to develop a mental health department to support the needs of the reservation. My native friends laughed with me as I departed three years later, of the audacity I had when I started. I was a white man, employed by the federal government, dressed in the uniform of a Public Health Service officer, asking for funds in return for services from tribal leaders and school administrators.

The three years at the Standing Rock reservation were very productive. I relied upon the relationships I had established between the Indian Health Service and Tribal government. Ron His Horse Is Thunder, Council Chairman of the Standing Rock tribe, created the following summary of my work for submission to the Public Health Service after hearing of my resignations:

Throughout the years, the members of the Standing Rock nation have become cynical of mental health directors on our reservation. The mental health providers were believed to be uncaring, unresponsive and under qualified. LCDR Barnes’ first goal as director was to increase access to mental health care, so that our people would not feel forgotten. He also developed a plan to increase the number of qualified providers, so that they would get the quality treatment they deserve. When IHS funding options were exhausted, LCDR Barnes, in his humble approach, presented ideas to Standing Rock Sioux Tribe and Standing Rock Public Schools that would accomplish these expansion goals. LCDR Barnes’ diplomatic and enthusiastic presentations made his ideas sound conceivable. For the first time a tribe and a grant school assisted a federal program financially. We believed in LCDR Barnes, and he delivered his promises of action every time. Our investments in his programmatic ideas have produced many returns for our people.

Specific examples of these successful partnerships include the one-year tribal funding agreement of a clinical psychologist to work within HIS, with the intentions of LCDR Barnes finding third party reimbursement funds to allow that psychologist to become a federal employee, as well as the creation and funding for both the Standing Rock Pre-Doctoral Psychology Internship and Post-Doctoral Psychology Residency program. These three acts of trust from our nation to LCDR Barnes resulted in the expansion of outreach from two mental health clinics available to our people, to six clinics. The number of doctorate level psychologists has increased from one to five psychologists. The number of master’s level therapists from zero to three. A total of seven qualified mental health professionals added to the reservation without an increase in his federal budget. The impact of his work has increased access and availability for mental health appointments for our people, and expanded our nation’s ability to disperse suicide prevention information. (Ron His Horse Is Thunder, Standing Rock Tribal Chairman, personal communication, June, 2010)

(continued on pg. 44)
Tranchita, *Standing Rock and Other Motivations...*, continued

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... have shown that 80% of the country gets their psychotropic medication (Beardsley, Gardocki, Larson, & Hidalgo, 1988). The only time I really even try to access a psychiatrist now is when the referral questions are more complex than GPs are comfortable with, such as cases of polypharmacy, history of multiple attempted medications without success, or increased suicidal risk. This would typically be the case of a high-risk patient, often with suicidal ideation or acting out behavior, who needs acute care but does not meet criteria for hospitalization. This type of high risk patient often will not receive services for another month because psychiatrists, for many people in “rural” settings, are a long drive away and there are often long wait-lists. From an ethical perspective, the patients I have who are most in need of services are often the ones who wait the longest.

These are the reasons I chose to get a master’s in clinical psychopharmacology. I am hoping that I can make my contribution by getting the rigorous training required to become a medical psychologist, as I believe it is the best and most ethical way to serve many patients. I have come to believe over time that psychologists being able to offer this additional service can have far reaching public health ramifications, as this can and will have a direct and identifiable impact through addressing barriers to appropriate psychiatric care.

Anthony Tranchita, Ph.D. is currently a staff psychologist and chief of the Alcohol and Drug Abuse Prevention and Treatment (ADAPT) program manager at Grand Forks Air Force Base, ND. He is taking Psychopharmacology coursework from Alliant International University, San Francisco. Previous positions included staff psychologist at a residential treatment center for Native American youth with substance abuse issues, and a previous Air Force assignment in Oklahoma.

References


Barnes, *My Tenure as a Psychologist...*, continued

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Overall, it was my experience that hard working professionals were recognized for their dedication. In 2007, I received “The Most Improved Mental Health Department Award” by the IHS Aberdeen Area Office. In 2007, I also received the PHS Commendation Medal for leadership of a mental health clinic in an isolated service area, and the development of a strategic suicide intervention plan. In 2008, I was awarded the IHS Aberdeen Area’s Supervisor of the year Award and Indian Health Service’s National Director’s Award for implementation of the pre-doctoral internship.

I would like to believe I left the Standing Rock reservation better than what I found it, but there was so much more work needed to be done. I wish I could have stayed longer. I would like to relate my admiration to the dedicated mental health workers of the Indian Health Service. For psychologists wishing for the opportunity to care for the underserved populations of the world, you need to go no farther than the nearest state that holds an Indian Reservation.

There you will most likely become a provider to the most complex mental health cases imaginable, have the opportunity to demonstrate leadership in the health care field, and feel a level of admiration, respect, and love that you have not experienced from any other community. The experience has changed me as a person and as a clinician forever.

Vincent Barnes, Ph.D. currently serves as a licensed clinical psychologist with the Public Health Service, and is currently assigned as the Residential Drug Abuse Coordinator at the Federal Prison Camp in Yankton, South Dakota with the Bureau of Prisons.
In anticipation of his participation in Division 55’s 2011 Midwinter Conference in Washington DC (see pg. 81), Mark Muse, MP, ABMP, graciously facilitated an interview with Dr. Robert Julien, author of A Primer of Drug Action and a strong supporter of RxP. Dr. Judith Julien, a recently-retired neuropsychologist and Robert’s wife of 47 years, graciously agreed to lead the dialogue.

Judi: Bob, tell us a little about your background and how you became interested in mental health and the RxP movement.

Robert: As a young PhD research psychopharmacologist teaching a drug-education course in the early 1970s, I observed that there were no materials to teach from; no introductory psychopharmacology textbooks were available. In 1975, I published the first edition of my Primer of Drug Action. As the literature changes so rapidly, the publisher agreed to an every three year revision schedule, resulting in the recently published 12th edition. Following completion of my Medical Degree in 1977, I then spent 25 years teaching and performing clinical anesthesiology in Portland, Oregon. Yet, I never abandoned my love and passion for psychopharmacology.

In the early and mid-1990s, while you, my wife, were in graduate school completing your doctorate in clinical psychology and your residency in neuropsychology, I came to realize the almost complete absence of drug education in the graduate psychology curriculum. I wondered how one could possibly counsel patients with mental health disorders without knowing how their medications affected their cognitive functioning, their behaviors, or their mental capacity?

“My passion today is that ALL psychologists, in order to function fully, need to have psychopharmacology knowledge,…”

This led to my role as a provider of continuing education for Oregon psychologists, both those with little knowledge of psychoactive medications as well as those preparing to become RxP providers. My passion today is that ALL psychologists, in order to function fully, need to have psychopharmacology knowledge, albeit to varying degrees.

As I travel and lecture, I ask clinical psychologists how they differ from mental health counselors. What do psychologists bring to the therapeutic table? In my view, your strength lies in the unique ability to provide excellence in testing, assessment, and diagnosis. Nonetheless, psychologists now have another unique opportunity: To assist, as pharmacologically-trained mental health providers, in developing and monitoring an entire collaborative treatment plan for a patient, including, in addition to robust diagnosis and psychotherapeutic interventions, understanding a client’s medications and monitoring for efficacy, appropriateness, and possibly debilitating side effects.

Judi: You will be presenting a workshop for the Division 55 Mid-Winter Conference on the role of pharmacologic agents in the treatment of children and adolescents. Could you give us a glimpse of what that might entail?

Robert: Multiple research papers published in the early 2000s documented the disastrous long-term outcomes of youth with untreated mental health disorders during childhood and adolescence. Indeed, we now know that mental health disorders are THE MAJOR chronic disease of young persons, and that these disorders persist into adulthood and become less responsive to treatment interventions. To reduce the rates of mental health disease in adults, we must address these disorders as they first present in childhood. This applies not only to school-aged children but to preschoolers, and even to…

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... neonates who are prone to develop the untreated disorders present in their pregnant mother. The literature in this area advances daily, and has developed over my last 2 editions into a major component of the 12th edition.

Judi: You also have a special interest, being an anesthesiologist by training, in pain management. Is there any particular role for RxP psychologists working in the field of pain management?

Robert: Most certainly, and this does not apply to the prescription of opioid analgesics. Such reliance has resulted in enormous prescription abuse and the production of millions of opioid-dependent persons in our country.

The founders of chronic pain management, such as Dr. John Bonica in his classic textbook, The Management of Pain, advocated a multidisciplinary approach, utilizing psychologists in a major collaborative effort. Dr. Bonica NEVER advocated reliance on opioids. Proper use of psychotherapeutic strategies (such as hypnosis), specific antidepressants, anticonvulsant mood stabilizers, NSAIDs, omega-3 fatty acids, and even cannabinoids all reduce opioid use (termed opioid-sparing actions).

A huge percentage of our patients suffer from chronic pain, as well as anxiety, depression, and anger. Addressing chronic pain and its associated disorders has to be a part of the practice of virtually every psychologist. Also to be addressed are genetic (CYP450 polymorphism) problems that result in ineffectiveness, drug interactions, or dangerous accumulation of specific opioids. Careful delineation of opioid responsiveness and/or toxicity may help unravel genetic problems in CYP enzyme availability or function. Amazingly, this may comprise up to 20% of patients with chronic pain.

Judi: The new edition of your classic work, Primer in Drug Action, has just been released. Tell us a little about the development of this seminal work, and also explain why you have entrusted future editions of the book to a husband/wife team of psychologists, one of whom is a prescribing medical psychologist.

Robert: For all of its eleven editions, my text was intended to be the most up-to-date, readable, and most well-referenced text available. After 36 years of continuous publication, however, the need for more clinical application has led to the addition of Drs. Joe Comaty and Claire Advokat to join me as authors. Joe is a prescribing psychologist in Louisiana, and Claire is a researcher and professor of psychopharmacology at Louisiana State University. Their input has been tremendous, taking the text beyond what I could have continued alone. I hope that this 12th edition will be even more applicable to clinical psychologists at all levels of training and practice.

Judi: Your passion is convincing mental health clinicians, especially psychologists, of the need to develop a working knowledge in the area of pharmacotherapy in order to provide a truly balanced approach to treating emotional and behavioral conditions. Do you have a vision as to how this might be done?

Robert: While some psychologists strive to be prescribers, the vast majority will not so chose, yet they need at least the basics of psychopharmacology in order to be better clinicians: To monitor for medication side effects; to be able to advocate for their patients; to help guide overall therapy; to know their own treatment limitations and those of medications; and to bring much more of their hard-earned talents to optimal clinical effectiveness.

This is not a new idea; it is a reiteration of a largely ignored 1993 call to implement such knowledge by APA, a call issued nearly twenty years ago to change the way graduate education in psychology is taught and practiced [Smyer et al. (1993). Summary of the Report of the Ad Hoc Task Force on Psychopharmacology of the American Psychological Association. Professional Psychology: Research and Practice, 24: 394-403.]
I am passionate that all patients, especially those presenting in primary care settings, receive optimal mental health care, and this necessitates collaborative care! To do this, all psychologists should be able to keep a running list of their patients’ psychoactive medications and, from this, they must be able to pose and determine answers to the following questions:

- Do any of these medications interfere with sexual functioning and therefore with the marital relationship? (obviously, SSRIs among others)
- Do any of these medications interfere with cognition, memory formation, or intellectual functioning? (benzodiazepines, lithium, topiramate, among others) How do these medications interfere with their daily functioning?
- Do any of these medications result in undesired weight gain? (a major reason for noncompliance)
- What do these medications cost? Do we have a choice between an expensive drug and a similar drug that costs much less?
- How do these medications affect depression and issues of depression? What are the drug expectations in contrast to drug limitations? How can we become involved in consultation, treatment planning, outcome measurements, and discontinuation planning?

- For your patients with anxiety disorders, do any of their medications underlie or intensify anxiety (e.g., Bupropion and related dopaminergic agonists)?

“**My passion today is that ALL psychologists, in order to function fully, need to have psychopharmacology knowledge,…”**

**Judi:** How do you view the current role of RxP doctoral level psychologists with their master’s in clinical psychopharmacology?

**Robert:** First and foremost, pharmacologically-trained psychologists are qualified to consult on medication and provide opinions concerning pharmacotherapy to physicians and mental health colleagues. Medical Psychologists, whether or not you are in the political struggle with a legislative body to formally grant you prescription privileges (which I wholeheartedly support), are fully qualified. Regardless of politics, you are Medical Psychologists and, as such, will be increasingly called upon to consult and to teach psychopharmacology as it applies to psychological and medical interventions.

You can raise the awareness of colleagues, referral sources, and patients. You can teach your colleagues about the potential side effects of drugs their patients are taking. You can explain cognitive problems in terms of brain processing/medications.

Part of your role as Medical Psychologists is to bring your colleagues along, although to do so may not be remunerative in every case. You are called to serve a role as psychopharmacology educators because, as you know, there is currently no ready pool of psychopharmacologically-trained clinician educators (most psychopharmacologists are PhDs, and trained as researchers in medical schools). There are few professionals available to teach psychopharmacology in psychology graduate programs. You are needed in graduate psychology programs to round out the curriculum and to teach young psychologists how to be integrated providers and, as such, better practitioners.

All psychologists should know the effects of drugs on learning, memory, cognition, IQ, cognitive processing, and so on. Such knowledge may have to come from your teachings. I envision your role not only as prescribers, but as educators and leaders of this movement to teach psychopharmacology to all of your colleagues.

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Judi: Finally, how do you view RxP psychologists still struggling for licensure to prescribe?

Robert: I would begin by asking each of you to define what your passion is. Is it to be recognized by the State in which you practice? Is it to be a step ahead of your colleagues, or to strive for the cutting edge within your chosen field? Do you believe in what you are doing well enough to describe it as your passion?

I propose that with what you have achieved, your daily role is to push the frontier ever forward and to begin to think about bringing others along with you on this venture, to contemplate giving back by generating new learning in current and future practitioners, inspiring persons to strive for the same excellence in clinical knowledge and practice that has, I am assuming, become your passion. And in this vein, it is my personal desire to inspire you special people, who have given much of yourselves to bring medical psychology this far, and to empower you to change the world — one person at a time.

The issue of legislative approval for RxP affects a few (and you will eventually succeed); but the deficit in pharmacologic knowledge affects all, especially our patients.

Dr. Robert Julien received his Ph.D. in Pharmacology from the University of Washington and his Medical Degree from the University of California at Irvine. Previously an Associate Professor of Pharmacology and Anesthesiology at the Oregon Health Sciences University, Dr. Julien practiced anesthesiology in Portland, Oregon until 2006. An acclaimed teacher and author, Dr. Julien recently published the 12th edition of his psychopharmacology textbook, A Primer of Drug Action (Worth Publishers, 2011). Now with 30 years of continuous publication, A Primer of Drug Action is regarded as the definitive textbook of psychopharmacology, covering both psychotherapeutic agents as well as substances of abuse.

Don’t miss Dr. Julien’s pre-conference workshop and presentation at the Midwinter Conference (see pg. 81). We look forward to meeting him!
My interest in the topic of threats within the ranks for the prescribing psychologist grew, in part, related to personal experiences of persons being hurt or killed as a result of assault within the military forces, while deployed to a combat theater or associated with deployment. Assault and death “within the ranks,” or violence within the military family, sometimes termed “fratricide,” constitutes a violation of some of the most basic tenets of military life (e.g., to preserve and protect comrades, and use force only when authorized and directed toward the enemy).

Some of my personal friends and acquaintances have been affected by such transgression of ethos and duty. Specifically, in 2009, my friend and Navy Commander, Keith Springle, a social worker, was killed in Camp Liberty, Iraq, where I once worked, along with four Army personnel, allegedly by Sergeant John M. Russell, a 39 year-old soldier. In late 2009, 53 soldiers were injured with 10 killed, allegedly by psychiatrist and Army Major, Nadal Malik Hassan, at Ft Hood, who worked almost around the clock following the shootings there. This last assault touched me in several ways, from having seen the alleged perpetrator, to knowing one of the dead, and reflecting upon those affected by the shootings.

The purpose of this article is to use case studies involving potential violence, from three deployments since 2003, to illustrate the issues facing the prescribing psychologist in the military. As background, I first deployed with the Marines in April, 2003, closely following the initial invasion of Iraq in March, 2003. Next, I was assigned to an Army Combat Stress Control Company at a remote Army Forward Operating Base in Baqouba, Diyala Province, Iraq, in the “surge” from July 2007 until February 2008. And lastly, I deployed on a Navy carrier strike group off the coast of Pakistan.

Cases

Case 1: Hallucinating in the Desert, with the Marines in Operation Iraqi Freedom I

A young Marine was diagnosed with depression in the States, prescribed an antidepressant, and deployed to Kuwait, and later Iraq, for the invasion. He had been in the desert for two to three months. Unfortunately, when he went forward the antidepressant was left in a secondary “sea bag.” The initial fighting ended quickly, and for three days he stood guard for 12 hours per day, with no shade in the heat of about 100 degrees. During the last few weeks, his affect worsened and he became severely depressed. He repeatedly asked to be taken out of the fight, and eventually was brought to the medical company in northern Kuwait, after he voiced “dreams” of sticking the Marine lying next to him with a “ka-bar” or fighting knife. Prescribing psychologist’s solution: Given the potential for violence, need for semi-emergent treatment and lack of resources in the war zone, this Marine was evacuated to the rear and eventually to the states.

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Younger, Threat Within the Ranks..., continued

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Case 2: “I Want to Kill Them All,” with the Army in Operation Iraqi Freedom VI – VIII

A young Army corporal’s service contract was extended due to “stop loss” for several months, and he deployed to Forward Operating Base Warhorse. He became increasingly despondent and angry, blaming the Army for being in Iraq. But at the same time, he said he wanted to stay in the war zone, to collect war zone pay and go to college when he left the Army and Iraq, in about 6 to 8 months. He said he wanted to fire the .50 caliber machine gun at random Iraqis and “kill them all,” so he was taken off the crew-served weapon. He began driving the large vehicle, probably intentionally damaging civilian vehicles while going through the cities. The prescribing psychologist diagnosed depression and some personality disorder factors, and strongly suggested that medication be considered in the treatment plan, but the patient refused. The psychologist also strongly suggested that the patient was not suitable for the Army and Iraq, in about 6 to 8 months. He was hustled out of the war zone to the nearest in theater hospital. However, he returned to the forward operating base about 10 days later. The psychologist completed his tour of duty, transferred, and administrative and clinical outcome of the case was unknown.

Case 3: “More of the Same” or Personality Disorders and Interpersonal Conflicts on an Aircraft Carrier, Preparing for Deployment to the Arabian Gulf in Operation Enduring Freedom

A young sailor left his assigned “watch,” or place of duty, and assaulted another sailor who had been in trouble many times earlier. The “beater” left the “beaten” with many knots and bruises. Subsequent investigation has shown that the beaten sailor had been taunting the assailter because both were dating a female sailor on the same ship. Apparently, conflict between the original couple lead to a new, originally covert, relationship with the second male, who in a poor display of judgment teased the well-muscled and poorly-controlled assailant. Ultimately, both males were discharged. The female sailor did not come to the attention of the psychologist again. In the case of assault, administrative action and subsequent punishment occur due to violation of the Uniform Code of Military Justice (UCMC), outside the realm of clinical responsibility for the psychologist.

Conclusions

Possible Factors

Although some might wonder how to make sense of the assessment of dangerousness and possibility of harm connected to military deployment, my purpose in selecting these cases is to show that the potential for violence in the military, especially surrounding deployment, easily crosses settings. Especially when deployed in a war zone, everyone carries weapons and has been trained to use them. Nevertheless, like the problem of suicide, the bottom line is that there is no easy fix or easy solution to threats within the ranks. Violence or threats can come from many factors. Although there is no one reason for the threat, targeting the following possibilities may have promise, in part because they can be identified and (at least the first two) possibly addressed:

- Interpersonal and/or administrative conflicts - Based upon news reports, the sergeant at Camp Liberty would seem to fall into that group. Underlying personality disorders may complicate the situation.
- “Mental Health” reasons separate from personality disorder - An example could include a suicidal patient who is also homicidal.
- Ideological cause or, as termed in media, “terrorist threat”. This is the most difficult to assess and, within the traditional role of clinical psychology, I am not aware of any treatment.
Suggesting a Framework

I offer the following suggestions in developing a framework for dealing with potential violence in deployed situations:

First, one must address the basic question of, “Who is the client or patient?” Another way of conceptualizing this assessment of threat and “treatment” is, “What is the purpose, or what are we doing here?” This basic question is often involved in, just to name a few, national security issues, detainee issues, the concept of “do no harm” in the Hippocratic oath versus protection of the public, as well as in more prosaic tasks such as fitness for duty or continued military service, and being evacuated from a war zone. Such balancing of interests illuminates differences between the history of, and focus for, the professions of Psychology and Psychiatry (I’m not sure how these differences influence actual practice of either). To elaborate, psychologists historically perform many additional functions in addition to actual clinical or patient care, such as forensic assessment or national security functions, for which the goal may not be treatment or efforts to improve an individual’s condition at all.

“How well can we actually assess dangerousness or threat within this context? Our superiors and the American people assume that mental health professionals can perform this task.”

Second, there is the question of the feasibility of psychologists accurately assessing threat. How well can we actually assess dangerousness or threat within this context? Our superiors and the American people assume that mental health professionals can perform this task.

Thirdly, and at least as importantly, in a large organization with as many regulations and administrative layers as the military has, what is the ability to effect change in administrative and personnel decisions?

And finally, assessing threats within the ranks should not be attempted without recognizing the supremacy of basic respect for human rights and dignity, while protecting the persons for which one is responsible. This is not just a throwaway line but, as others have indicated, respect for human rights is a part of the soul, if you will, of the profession of psychology. Giving away Psychology’s values means, for practitioners, giving away a part of yourself. I recognize the difficulty in operationalizing respect for human rights and dignity, but the difficulty heightens the importance, rather than diminishing it. This question will continue to be explored and debated for many years to come.

Dr. Younger gained prescriptive authority while serving as a Reserve officer with the U.S. Navy in 1999. He returned to active duty after September 2001. He has prescribed in seven states, on two aircraft carriers, and in two foreign countries.

Hartnell, Journey to RxP..., continued

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... for me anyway, of a 9 CEU requirement to be completed after licensing, covering Native American health and history, and to a lesser extent, other minorities. Once my preceptorship hours are completed, the next step is application for a two year provisional RxP license from New Mexico.

I now see how important the medical preceptorship is towards the training and development of an RxP psychologist. As mine draws to a close, I will truly miss my time in the medical clinic, although I am looking forward to the next step in my journey toward RxP. I have a long way to go to feel competency in treating the myriad of patients served by the Indian Health Services more independently, thus the 400 hour supervision preceptorship is a highly regarded requirement!

Johna Hartnell, Ph.D. earned her MS in clinical psychopharmacology from Fairleigh Dickenson University in 2009.
As a society, we are moving into an era in which people are living longer. Researchers anticipate the number of people with dementia will increase to 7.7 million by 2030 (Hebert, Beckett, Scherr, & Evans, 2001). As the incidence of dementia increases, so does the incidence of behavioral and psychological symptoms of dementia (BPSD) (Lanctot, Herrman, & Mazzotta, 2001). Regardless of the level of cognitive impairment, BPSD may arise anytime during the course of dementia (Lanctot et al.). A common feature of the various forms of dementias, BPSD affects an estimated 90% of people with dementia (Lanctot et al., 2001). Thus, the treatment of BPSD is an important aspect of dementia care.

BPSD can manifest as three main syndromes that often coexist: agitation, psychosis, and mood disorders (Ballard et al., 2009). As dementia progresses, agitation and aggression become more evident, and most often require pharmacotherapy (Ballard et al., 2009). With many geriatric dementia patients experiencing BPSD, antipsychotic medications are commonly used to treat these symptoms (Schneider, Dagerman, & Insel, 2005; Stahl, 2008). As such, antipsychotics are prescribed both disproportionately in older adults, and for over one quarter of Medicare beneficiaries in long-term care facilities in the United States (Wang et al., 2005). Although not approved, antipsychotics continue to be used as "off-label" treatment for BPSD (Chen et al., 2010; Stahl, 2008). Both conventional and atypical antipsychotics have associated risks, specifically increased risks of cardiovascular effects and of sudden death (FDA, 2005, 2008; Schneeweis, Setoguchi, Brookhart, Dormuth, & Wang, 2007; Schneider et al., 2005; Wang et al., 2005). After an initial FDA release of a black box warning for atypical antipsychotics in older adults, many patients were given conventional antipsychotics (FDA, 2005; Wang et al., 2005). Comparatively, conventional antipsychotics are associated with a higher mortality rate than atypical antipsychotics (Kales et al., 2007; Wang et al., 2005). This article offers an exploration of the mechanisms underlying these risks, treatment implications, and alternative treatments.

**Electrophysiologic Factors Related To Sudden Cardiac Death**

Although the mechanisms involved in the influence of cardiac arrhythmogenesis by conventional and atypical antipsychotics are complex and partially understood, research has yielded increasing evidence to suggest the involvement of certain types of ion channels (Glassman & Bigger, 2001; Welch & Chue, 2000). The primary mechanisms through which antipsychotics lead to sudden death are related to conduction delays, represented clinically as QT prolongation, which may lead to fatal arrhythmias (Kongsamut, Kang, Roehr, & Rampe, 2002; Leon et al., 2010; Li, Esterly, Pohl, Scott, & McBride, 2010; Schneeweis et al., 2007). Research has implicated these ion channels in the hypothesis that three electrophysiologic factors converge to develop drug-induced arrhythmogenesis: a decrease in repolarization reserve (i.e., QT-prolongation), an increase in transmural dispersion of repolarization, and the induction of premature heartbeats caused by early after depolarizations (Li et al., 2010).

The interval between depolarization (Q wave) and repolarization (T wave) is represented by the electrocardiogram (ECG) measure known as the QT interval (Glassman & Bigger, 2001). As the heart rate increases, the length of the QT interval shortens; therefore, the QT interval is typically corrected for heart rate (QTc), which is most often used in research (Glassman & Bigger; Imran, Rampes, & Rosen, 2003). Regardless of whether the absolute or corrected interval is used, antipsychotics lengthen the QT interval (Imran et al., 2003). Although only modestly associated with...
arrhythmia, even slight lengthening of the QT interval has been associated with an increase in mortality in older adults (Roden & Vaswanathan, 2005). Therefore, the QT interval is the best available predictor of cardiac related mortality in older adults treated with antipsychotics (Glassman & Bigger, 2001).

Prolongation of the QT interval may signal a problem related to sudden death in older adults taking antipsychotic medications (Glassman & Bigger, 2001; Welch & Chue, 2000; Witchel, Hancock, & Nutt, 2003). Although lengthening of the QT interval is not a problem itself, it signifies a delay in repolarization of the ventricular myocardium and the potential of the fatal paroxysmal ventricular arrhythmia torsades de pointes (TdP) (Crumb et al., 2006; Glassman & Bigger, 2001; Welch & Chue, 2000). The effects of antipsychotics on the cardiomyocyte action potential are one of the most salient accompanying effects (Imran et al., 2003).

**Molecular Biological and Electrophysiological Perspectives**

The effects of antipsychotics on ion channels involved in the generation of ventricular action potentials are often reflected in QT prolongation (Barnes & Hollands, 2010; Witchel et al., 2003). Ventricular cell depolarization results from a sodium ion (Na+) influx via selective sodium channels, while calcium, sodium, and potassium (Ca2+, Na+, K+) channels are involved in repolarization (Glassman & Bigger, 2001). The effect of a given antipsychotic on repolarization is dependent upon the symmetry between the inhibition of ionic efflux versus the inhibition of the influx (Witchel et al., 2003). Since multiple ion channels are involved in cardiomyocyte repolarization, a defect in any one ion channel may decrease repolarization reserve (Roden & Viswanathan, 2005).

Although there are multiple ion channels involved in cardiac action potentials, research supports the association between arrhythmia and compounds that lengthen repolarization by blocking specific ion channels (Barnes & Hollands, 2010; Glassman & Bigger, 2001; Li, Esterly, Pohl, Scott, & McBride, 2010). Of particular interest are the K+ channels, as they are almost always involved in drug-induced (acquired) QT lengthening (Roden & Viswanathan, 2005). The initiation and completion of AP repolarization involves several specific K+ channels that play prominent roles (Witchel et al., 2003). Specifically, the effect of delayed K+ rectifier current (I_{Kd}) on repolarization is one of the mechanisms through which drug-induced QT lengthening occurs (Crumb et al., 2006; Glassman & Bigger, 2001; Witchel et al., 2003). Both rapid (I_{Ks}) and slow (I_{Kr}) elements comprise the I_{K} current, and both are specific channel subtypes with discrete kinetic properties (Witchel et al., 2003). The I_{K} composite develops progressively through the course of the plateau phase, opposing the ionic influx central to the plateau depolarization; repolarization occurs when the total balance of efflux exceeds the influx (Witchel et al., 2003). Antipsychotics block the rapid component of the delayed rectifier current (I_{Kr}), which exposes defects in other ion channels, thereby further reducing repolarization reserve (Li et al., 2010; Roden & Viswanathan, 2005). Repolarization reserve may also be influenced by drug-drug interactions, thus creating a further reduction thereof (Li et al., 2010; Roden & Viswanathan, 2005).

In the cardiac ventricles, the monophasic action potential, represented by five sections (phases 0–4) on ECG, results from the synchronous action of the related ion channels (Li et al., 2010). Myocardial depolarization and repolarization constitute electrical wavefronts, which may be visualized as two successive waves crashing upon a shore (Li et al., 2010). The depolarization wavefront moves through the ventricle, on to the bundle of His, downward through the Purkinje fibers toward the ventricular apex, and away from the endocardium, through both the midmyocardium and epicardium (Li et al., 2010). Immediately following depolarization, the...

(continued on pg. 54)
repolarization wavefront, clinically represented as the QT interval, follows the same path (Li et al., 2010). The effects of antipsychotics on the repolarization wavefront are increased duration and reduced amplitude (T-wave flattening) (Li et al., 2010). As depolarization and repolarization wavefronts move through the pathways, the action potential exhibits some heterogeneity, which is referred to as dispersion (Li et al., 2010). Variability in repolarization affects dispersion (Li et al., 2010). An increase in transmural dispersion induced by antipsychotics is the second of the arrhythmogenic characteristics associated with TdP development (Li et al., 2010; Roden & Viswanathan, 2005).

Inhomogeneity of ventricular action potentials increases the likelihood of early after depolarizations (EADs) (Li et al., 2010; Roden & Viswanathan, 2005). Because QT intervals are surface level recordings of action potentials, researchers suggest one of the mechanisms underlying the induction of TdP is the occurrence of early after depolarizations (EADs) (Welch & Chue, 2000). EADs are spontaneous depolarizations, which cause the conduction of an asynchronous, premature beat in segments of the ventricular myocardium (Barnes & Hollands, 2010; Li et al., 2010; Witchel et al., 2003). EADs, when distributed throughout the heart, lead to premature beats via triggered action potentials (Welch & Chue, 2000). If repolarization is inhibited (reduced repolarization reserve) either through a decrease in potassium (K⁺) and/or an increase in the influx of sodium (Na⁺) or calcium (Ca²⁺), then prolongation of the QT interval via Iₖr block may occur, allowing the activation of arrhythmogenic, inward currents underlying EADs and triggered action potentials (Li et al., 2010; Roden & Viswanathan, 2005; Welch & Chue, 2000; Witchel et al., 2003). The initiation of EADs, combined with reduced repolarization reserve and increased transmural dispersion, leads to TdP (Welch & Chue, 2000; Roden & Viswanathan, 2005; Witchel et al., 2003; Li et al., 2010).

Aging may lead to a higher risk of adverse cardiac events associated with antipsychotics (Leon et al., 2010). Antipsychotics, as well as other drugs, that block the Iₖ rectifier current can potentially cause TdP and lead to sudden cardiac death in adults who are healthy (Glassman & Bigger, 2001; Li et al., 2010). Since antipsychotics can increase arrhythmias in healthy people, individuals who have cardiac disease are even more likely to experience these events (Glassman & Bigger, 2001). Considering older adults are more likely to have cardiac disease, they are also more likely to experience arrhythmogenesis in response to antipsychotic medications (Mittelmark et al., 1993). Gender (higher risk for females), age, ion channel polymorphisms, electrolyte imbalance, and cardiac disease in particular are also associated with increases in the rates of sudden cardiac death (Glassman & Bigger, 2001; Li et al., 2010).

Molecular Genetics
Each of the ion channels involved in the cardiomyocyte action potential are encoded by genes. Mutations of the following genes have been linked to prolongation of the QT interval: SCN5a...
gene (Na\(^+\) channel), HERG (K\(^-\) channel), KvLQT1 (K\(^-\) channel), and KCNE1 (K\(^-\) channel) and KCNE2 (K\(^-\) channel) (Welch & Chue, 2000; Witchel et al., 2003). Research has consistently implicated the I\(_{\text{Kr}}\) current expressed by the human ether a go-go related gene (HERG) to be involved in drug-induced TdP (Roden & Viswanathan, 2005; Yap & Camm, 2000).

As previously mentioned, antipsychotics linked to drug-induced QT prolongation target the rapid component of the delayed K\(^+\) rectifier current (I\(_{\text{Kr}}\)) (Crumb et al., 2006; Roden & Viswanathan, 2005; Welch & Chue, 2000). “I\(_{\text{Kr}}\) is a co-assembly of human ether-a-go-go gene (HERG) A-subunits encoded by the KCNH2 gene and MiRP1 B-subunits encoded by the KCNE gene” (Crumb et al., 2006, p. 1133). Although some debate exists, HERG seems to encode a protein underlying the current I\(_{\text{Kr}}\), thus HERG influences ventricular repolarization (Crumb et al., 2006).

Mutations of HERG are associated with long QT syndrome 2 (LQTS-2), an inherited disorder, which suggests HERG is a likely mechanism of TdP (Roden & Viswanathan, 2005; Seussbrich et al., 1997). Thus, HERG offers a mechanistic link between LQTS-2 and drug-induced QT prolongation (LQTS-1) (Seussbrich et al.). Additionally, Crumb et al. (2006) found that the antipsychotics clozapine, haloperidol, olanzapine, pimozide, risperidone, sertraline, thioridazine, ziprasidone, and metabolites of some of these drugs block the HERG current in a manner that is concentration-dependent having nanomolar range affinities. Therefore, the HERG current blockade created by antipsychotics seems to be the most likely mechanism that causes prolongation of the QT interval and antipsychotic-induced arrhythmias (Crumb et al., 2006).

Because the effects of antipsychotics on cardiomyocyte and myocardium are dose-dependent, increases in plasma concentration for the drug or its metabolites increase the risk of TdP, as certain metabolites also bind to HERG (Crumb et al., 2006). Certain enzymes have been implicated in the increase of antipsychotic (and metabolite) plasma concentration (Llerena, Berecz, de la Rubia, & Dorado, 2002; Llerena, Berecz, Dorado, & de la Rubia, 2004). One such enzyme implicated in the metabolism of both thioridazine and risperidone is the cytochrome P450 isoenzyme CYP2D6 (Crumb et al., 2006; Llerena et al., 2002; Llerena et al., 2004). Plasma concentration can increase through several means. First, genetic defects in enzymes can increase the plasma concentration in those affected by such defects, referred to as poor metabolizers (Llerena et al., 2002; Llerena et al., 2004). Additionally, plasma concentration can increase through the co-administration of antipsychotics with other medications that have an affinity for the same enzymes (Llerena et al., 2002). Since polypharmacy is common in older adults receiving antipsychotics, there is an increase in the risk of both drug interactions and sudden death (Llerena et al., 2002).

One method to counter for risk of sudden death is to measure the parent-drug to metabolite ratio in the blood (Llerena et al., 2002). This offers a means of estimating the capacity of the CYP2D6 isoenzyme, since the ratio of parent-drug to metabolite is correlated with the activity of CYP2D6 (Llerena et al., 2002). Therefore, this estimate may prove to be a useful method for the clinical management of a potentially fatal TdP side effect (Llerena et al., 2002).

**Treatment Implications**

Given that antipsychotics are linked with cardiac effects, a three-fold risk of cerebrovascular accidents (CVAs), and an increase in sudden death, it seems clear that antipsychotics should be used as a last resort in older adults with end-stage dementia, and only after all other attempts have failed (Ballard et al., 2009; Passmore, Gardner, Polack, & Rabheru, 2008). The first line of treatment for BPSD should be non-drug therapies (Alexopoulos, Streim, & Carpenter, 2005; Ballard et al., 2009; Grasel, Wiltfang, & Kornhuber, 2003;... (continued on pg. 56)
If non-drug therapies are ineffective, then clinicians should proceed with pharmacological interventions (Passmore et al., 2008). Although we need further research to identify effective medications, the antidepressants citalopram, sertraline, and trazadone have been shown to improve BPSD (Ballard et al., 2009; Lancot et al., 2001; Passmore et al., 2008). Cholinesterase inhibitors have also been shown to be an effective treatment for BPSD, such as donepezil for Alzheimer’s dementia (AD), rivastigmine for Lewy bodies dementia, and galantamine in vascular dementia and AD (Ballard et al., 2009; Wat, 2008; Passmore et al., 2008). Memantine, an NMDA receptor agonist, has also shown promise in treating aggression and agitation in dementia (Ballard et al., 2009; Passmore et al., 2008; Wat, 2008). Antiepileptics (sodium valproate and carbamazepine) and β-adrenoceptor antagonists, such as propanolol, may be effective in treating BPSD (Passmore et al., 2008).

When all previous attempts at managing BPSD have failed, antipsychotics may be considered for short-term treatment (Ballard et al., 2009; Passmore et al., 2008; Sutor et al., 2006). When antipsychotics are prescribed to older adults, olanzapine may be considered since it has the least blockade effect on the HERG channel (Crumb et al., 2006). Patients with severe symptoms may be treated with short-term olanzapine along with the initiation of a long-term treatment such as a cholinesterase inhibitor, antidepressant, memantine or another less established alternative (Passmore et al., 2008). When using olanzapine, clinicians should consider starting at the smallest dose possible (5 to 7.5 mg/day) and increase the dosage slowly (Alexopoulos et al., 2004).

To avoid fatal side effects such as TdP, clinicians should consider testing when treating older adults with short-term antipsychotics. Assessments may include 24-hour ECG monitoring, checking for the possibility drug-drug/disease-drug interactions before prescribing, and assessing the capacity of CYP2D6 via parent-drug/metabolite ratio (Li et al., 2010; Llerena et al., 2002). These methods of assessment offer a means of decreasing the risk of cardiovascular effects, thereby decreasing mortality in older patients treated with antipsychotics. If QT lengthening does occur, it may be treated with empiric magnesium, regardless of serum levels, as well as hypokalemia correction and withdrawal of antipsychotic agents (Imran et al., 2003; Roden & Viswanathan, 2005). However, since the risks of antipsychotic use in people with BPSD often outweigh the benefits, clinicians should reserve antipsychotics for short-term treatment and as a last resort.

Channing Harris, a doctoral student at Fielding Graduate University, lives in Nashville, TN.

References


Barnes, B. J., & Hollis, J. M. (2010). Drug-induced arrhythmias. *Critical Care Medicine, 38*(Suppl. 6), S188-S197. DOI:10.1097/CCM.0b013e3181de112a

Harris, Antipsychotics in Geriatric Patients..., continued


Drugs & Aging, 25(5), 381-398. DOI:10.2165/00002512-20082505-00003


(continued on pg. 58)
Harris, Antipsychotics in Geriatric Patients..., continued


Appendix

Figure 1:

<table>
<thead>
<tr>
<th>Mortality Of Older Adults Within 180 days of Being Prescribed Antipsychotics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Antipsychotics</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>17.9%</td>
</tr>
<tr>
<td>25.2%</td>
</tr>
</tbody>
</table>

Adapted from: Wang et al., 2005; Kales et al., 2007

Figure 2:

Electrophysiological basis for LQTS.

(Reproduced with permission from the American Society for clinical Investigation: George, 2005)
**Harris, Antipsychotics in Geriatric Patients...**, continued

**Figure 3:**

 ![Mechanisms of sudden death.](Reproduced with permission from the American Society for Clinical Investigation: Roden & Viswanathan, 2005)

**Figure 4:**

<table>
<thead>
<tr>
<th>Drug</th>
<th>HERG IC$_{50}$ µM</th>
<th>Metabolite</th>
<th>HERG IC$_{50}$ µM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clozapine</td>
<td>0.320</td>
<td>Clozapine-N-oxide</td>
<td>133</td>
</tr>
<tr>
<td>Mesoridazine</td>
<td>0.320</td>
<td>N-Desmethyloclozapine</td>
<td>4.5</td>
</tr>
<tr>
<td>Sertindole</td>
<td>0.0147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloperidol</td>
<td>0.0268</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olanzapine</td>
<td>0.231</td>
<td>Desethylolanzapine</td>
<td>14.2</td>
</tr>
<tr>
<td>Ziprasidone</td>
<td>0.125</td>
<td>2-Hydroxyolanzapine</td>
<td>11.6</td>
</tr>
<tr>
<td>Thioridazine</td>
<td>0.033</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risperidone</td>
<td>0.148</td>
<td>9-Hydroxyrisperidone</td>
<td>1.3</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>Not available</td>
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<td></td>
</tr>
<tr>
<td>Pimozide</td>
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<td></td>
<td></td>
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</table>

Adapted from: Crumb et al., 2006.
Introduction
Clinicians practicing today need to be aware of the ways in which the current industry-dominated climate may undermine the integrity of the scientific process and, thus, may compromise patient care. In the mental health field, corporate sponsorship bias can affect psychiatric taxonomy and clinical Practice Guidelines (CPG). Financial conflicts of interest (FCOI) can occur when there are financial associations between researchers, authors, or panel members developing psychiatric diagnostic and treatment guidelines, and the pharmaceutical industry, or when randomized clinical trials (RCTs) are industry funded. Therefore, clinicians need to be especially vigilant about the informed consent process when patients are prescribed psychotropic medications. As Past President, Elaine LeVine, Ph.D. noted in the December, 2007 issue of The Tablet, the issue of informed consent is a particularly salient one for Division 55 members:

Psychologists adopting a scientist-practitioner model are in an excellent position to carefully analyze the research regarding the efficacy and safety of various drugs. Because we view education as part of our role as healers, we work with our patients to provide the extensive informed consent that allows them to make knowledgeable decisions about using medications, given a thorough understanding of the cost/benefit ratio. (p. 3)

In order to be fully educated about the risk/benefit ratio of psychotropic medications, we must critically evaluate the diagnostic and treatment information that is being produced and disseminated.

Psychiatric Taxonomy and the Pharmaceutical Industry
In 1952, the first official Diagnostic and Statistical Manual of Mental Disorders (DSM) was published by the American Psychiatric Association. Few outside the field had ever heard of what is now often referred to as the “bible” of psychiatric disorders. Fewer still would have predicted that 58 years later there would be a firestorm of controversy over the proposed revisions to the DSM.

In light of the DSM’s clinical importance, the appearance of industry bias, let alone the reality, can undermine its integrity and weaken public trust. The concern about undue industry influence was heightened when it was discovered that the organization that produces the DSM, the American Psychiatric Association, receives substantial drug industry funding, and the majority of the individuals who serve as diagnostic panel members also have drug industry ties. My colleagues and I discovered that 100% of the individuals on two DSM panels, Schizophrenia and Psychotic Disorders, and Mood Disorders, had financial ties (e.g., served on speakers’ bureaus, corporate boards, received honoraria) with the pharmaceutical industry (Cosgrove, Krimsky, Vijayaraghavan, & Schneider, 2006). The fact that all of the members of these panels had industry ties is problematic because psychopharmacology is the standard treatment in these two categories of disorders.

To its credit, the American Psychiatric Association has required all DSM-V panel members to post financial disclosure statements (http://www.dsm5.org). Indeed, the American Psychiatric Association has made a commitment to better manage potential FCOI, and certainly this new disclosure requirement appears to be a step in the right direction. One would, therefore, expect to see a decrease in the number of individuals serving on the DSM-V panels who have corporate ties. However, as we reported in the New England Journal of Medicine last year, despite increased transparency, industry relationships with DSM panel members persist; approximately 68% of the DSM-V task-force members report having ties to the phar-
Cosgrove, *Psychiatric Taxonomy...*, continued

Pharmaceutical industry (Cosgrove, Bursztajn, & Krimsky, 2009). This represents a relative increase of 20% over the proportion of DSM-IV task-force members with such ties. But it is not only task force members who have financial relationships with Big Pharma; of the 137 DSM-V panel members who have posted disclosure statements, 77 (56%) reported industry ties, such as holding stock in pharmaceutical companies, serving as consultants to the drug industry, or serving on drug company boards, which is no improvement over the 56% of DSM-IV members who were found to have such industry relationships. Some DSM-V panels still have a majority of members with industry ties. If financial conflicts of interest are not reduced, private-sponsor bias in research will be exacerbated.

With concerns mounting about the American Psychiatric Association’s financial ties with the pharmaceutical industry, questions have been raised by patient advocacy groups, investigative journalists, clinicians and researchers as to whether the proposed changes for the DSM-V are evidence-based. Because a DSM diagnosis influences treatment decisions, especially decisions about psychotropic medications, adding new disorders can have a significant impact on prescribing practices. Indeed, the lack of biological markers for psychiatric conditions renders the field vulnerable to industry influence. Specifically, the lack of biological markers opens the door for what some have referred to as “disease mongering” or “widening the boundaries of treatable illness” (Moynihan, Heath, & Henry, 2002). In turn, this may allow pharmaceutical companies to apply for FDA approval of new medications that are actually “me too” drugs, drugs that are neither more efficacious nor safer than those already on the market. (See Egli and Egli’s excellent essay in the July, 2007 Tablet on the FDA approval of Invega, then a new atypical antipsychotic that is essentially a patent extender). In fact, sometimes the iatrogenic harms of these medications may outweigh their benefits.

My colleagues and I have been following the proposed revisions to the DSM. An example of a new disorder that expands diagnostic boundaries and would likely result in an increase in the number of individuals prescribed psychotropic medication, especially children and adolescents, is "Attenuated Psychotic Symptoms Syndrome" (http://www.dsm5.org). This syndrome, proposed for inclusion in the DSM-V, describes symptoms of psychosis that are theorized to appear in individuals at risk for developing schizophrenia, before they are actually diagnosed with the disease. The idea is that if prodromal psychotic symptoms are diagnosed and treated early enough, it will be possible to prevent at-risk individuals from developing schizophrenia (Gobal, Cosgrove, & Bursztajn, in press). However, the data do not support this reasoning. Various studies have demonstrated that only 16-30% of people with symptoms of psychosis end up developing schizophrenia later in life (McGorry et al., 2009; Yung et al., 2008). Moreover, it is not even clear that treatment with antipsychotic medications reduces their risk for developing schizophrenia any more than treatment with placebo (McGlashan et al., 2006). Based on these findings, and in light of the adverse side effects of antipsychotic medications, including movement disorders, weight gain, and diabetes, some researchers have concluded that the risk/benefit ratio does not justify treating those at risk for psychosis with these medications (De Koning et al., 2009; McGorry et al., 2009). We believe, therefore, that before the DSM-V adopts “Attenuated Psychotic Symptoms Syndrome,” panel members need to provide further…

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... evidence regarding the validity and reliability of this newly proposed category (Gobal et al., in press).

Are clinical Practices Guidelines (CPG) and Randomized clinical Trials (RCTs) industry influenced?

As noted above, there are increasing concerns that the pharmaceutical industry may be able to influence the definition of a mental health problem. There also is the concern that drug industry involvement (e.g., funding of clinical trials, guideline authors serving on speakers’ bureaus of pharmaceutical companies) could affect CPG development. In 2009, my colleagues and I published the results of a study that examined financial associations between the pharmaceutical industry and authors of three major CPG for Bipolar Disorder, Major Depressive Disorder and Schizophrenia. We found that 90% of the authors had financial ties to the pharmaceutical companies that manufactured the drugs that were identified in the guidelines as recommended therapies for the respective mental illnesses; None of these financial associations were disclosed in the CPG (Cosgrove, Bursztajn, Krimsky, Anaya, & Walker, 2009). The results of this and other studies highlight the need for greater transparency and management of FCOI in the development of CPG.

Because meaningful informed consent requires a full representation of adverse effects and accurate information on the efficacy of the recommended medications, clinicians rely upon results of RCTs as the “gold standard” for evidence-based medicine. Thus, it goes without saying that RCTs should be free of sponsor bias. However, in today’s climate, should clinicians be wary about the “evidence” being disseminated?

Let’s look at the recent research that addresses this question. Pitrou, Boutron, Ahmad, and Ravaud (2009) examined reporting and presentation of harm-related results in RCTs published in general medical journals with high-impact factors. They concluded that reporting of harms continues to be inadequate. They found that information related to the severity of adverse events was not reported in 27.1% of RCTs, and withdrawal of patients because of adverse events was not reported in 47.4% of RCTs. Another study also raises questions as to whether clinicians should unquestioningly accept the results of RCTs. Researchers studying financial conflict of interest in clinical trials of psychiatric medications found that, “among the 162 randomized, double-blind, placebo-controlled studies examined, those that reported conflict of interest were 4.9 times more likely to report positive results” (Perlis et al., 2005). “[T]he randomized trials agenda may need to reprogram its whole mission, including its reporting, toward better understanding of harms” (Ioannidis, 2009, p. 1739).

Results of these and other studies have led some to question whether FCOI and marketing have triumphed over science. The under-reporting of negative results and publication bias, leading to unsubstantiated efficacy and safety data, may prevent clinicians from being able to fully inform their patients about the associated risks and benefits to taking a recommended medication.

This is not to suggest that pharmaceutically-funded researchers intentionally misrepresent their findings in a pro-industry way. Researchers are not always aware of the subtle ways in which their industry connections may influence their choice of language or influence their choice of which findings to highlight. It would also not be fair to say that we can never trust industry-sponsored research. In fact, some studies have found that, “the research methods of
Cosgrove, Psychiatric Taxonomy..., continued

The concerns about industry influence in organized psychiatry make Division 55’s goal of granting prescriptive authority to all properly trained psychologists especially timely. As Dr. LeVine (2007) astutely pointed out, psychologists’ training in the scientist-practitioner model is essential in being able to carefully and thoroughly assess the scientific evidence regarding the efficacy and safety of psychotropic medications. However, this training needs to be augmented by incorporating a critical and reflective approach to psychiatric taxonomy, and to the treatment recommendations disseminated in clinical Practice Guidelines. Consideration of the role that the funding source may have played in the research design, data analysis, or reporting of results, is essential. For example, we must ask questions such as: Were adequate outcome measures used in this RCT? Was the effect size clinically meaningful as well as statistically significant? Was equipoise violated by comparing the new medication to a placebo rather than to a comparable drug already on the market? In terms of diagnosis, we must carefully examine the evidence when new DSM diagnoses are proposed or when changes in symptomatology are suggested, especially when these changes will have a direct and significant impact on prescribing practices.

Some psychiatrists have found it difficult to understand how financial conflicts of interest in the field may increase bias in the diagnosis and treatment of mental illness. As Upton Sinclair stated, “It is difficult to get a man to understand something when his salary depends upon his not understanding it” (1935/1994, p. 109). Prescribing psychologists take heed.

Lisa Cosgrove, Ph.D. is a clinical psychologist and associate professor in the Counseling Psychology Department at the University of Massachusetts-Boston. She is a Residential Research Fellow at the Safra Center for Ethics, Harvard University (AY 2010-2011). She is co-editor of Bias in Psychiatric Diagnosis, and a contributing editor of Psychiatric Ethics and the Rights of Persons with Mental Disabilities in Institutions and the Community. Her work addresses the ethical dilemmas that arise in the biomedical field when there are financial ties between the pharmaceutical industry and academic institutions or professional organizations.

References


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The Institute of Medicine (IOM) Roundtable on Evidence-Based Medicine recently conducted a workshop, “Leadership Commitments to Improve Value in Health Care: Finding Common Ground.” The IOM established the Roundtable in 2006, “as a unique and neutral venue where the key stakeholders could work cooperatively to help transform the way in which evidence on clinical effectiveness is generated and used, to improve health and health care and to drive improvements in the effectiveness and efficacy of medical care in the United States.” Central to the IOM vision is the notion that, collectively, the healthcare sectors possess the knowledge, expertise, and leadership necessary to transform the healthcare system, and that what is most acutely needed is a shared commitment to improving the development and use of information about the efficacy, safety, effectiveness, value, and appropriateness of the health care delivered. The underlying objective is to develop a “learning healthcare system” in which, by the year 2020, 90% of clinical decisions will be supported by accurate, timely, and up-to-date clinical information, and will reflect the best available evidence. The three stated goals were: (1) To consider stakeholder capacity for stronger progress toward a “learning healthcare system;” (2) To explore transformational opportunities; and, (3) To identify possibilities for collective initiatives that might be considered by Roundtable sectors. The participants included high level officers from the Mayo Clinic, Blue Shield of California, National Business Group on Health, Consumers Union, AMA, SEIU, CMS, VA, and a number of other impressive organizations.

Common Concerns and Themes
Concerns
- Rising costs and limited resources
- System inefficiencies
- Increasing complexity
- Expanding evidence gap
- Limited system capacity and flexibility
- Entrenched cultures

Themes
- Build trust and collaboration
- Foster agreement on “value” in health care
- Improve public understanding of evidence
- Characterize the impact of shortfalls in the evidence
- Identify the priorities for evidence development
- Improve the level, quality, and efficiency of the research
- Clarify and promote transparency
- Establish principles for the interpretation and use of evidence
- Improve engagement in the full life cycle of interventions
- Focus on frontline providers
- Foster a trusted intermediary for evidence
- Build the capacity to meet the demand
- Create incentives for change
- Accelerate advances in health information technology (HIT)

The envisioned “learning healthcare system” is one that maintains a constant focus on the health and economic value returned by care delivered, and continuously improves in its performance. The workshop participants felt that broad culture change is especially needed to enable the evolution of the learning environment as a common partnership of patients, providers, and researchers alike. Currently, health care has various customs and practices which often are not conducive to reform. Caregiving and caregivers are often “siloed,” with inadequate communications among the various functional areas of the healthcare system. Information is not shared as widely as it should be within specific healthcare systems, let alone between systems, contributing to inefficiency and distrust in the system. In general, providers, patients, and other sectors do not yet believe that the development of evidence is an activity relevant to their experience in the routine delivery of care. Accordingly, the point of care must be the central focus for this continuous learning process, a major point of improvement.
which Steve Ragusea has been making to psychology’s leadership for over a decade.

**Intriguing Notions**

Accelerating the potential for better development and application of evidence requires improved communication between patients and clinicians about the nature of the evidence base, and the need for partnership in its development and use. Leadership is required from every quarter – strong, visible, and multifaceted leadership from all involved sectors to marshal the vision, nurture the strategy, and motivate the actions necessary to create the “learning healthcare system” desired. The IOM indicated:

Workshop discussions were largely predicated on a central belief that evidence-based care should be delivered by interdisciplinary teams, an approach that requires a significant shift in the culture of health care, including embracing the patient as part of the team. To make team-driven care the norm, attention is needed to retooling practices in the areas of clinical education, ongoing training, testing, and credentialing for front-line healthcare providers. The development of decision tools and prompts, for use in the practice setting, and the establishment of infrastructures to improve the focus, accessibility, use, and generation of the best evidence by providers, would also help make evidence-based, team-driven care the norm. Similarly, practices could be designed and implemented to ensure that existing data from patient care loops back to inform the generation of new evidence. Other levers noted to promote broader uptake of the use of evidence in clinical practice include education, payments, measurement and assessment, enhanced patient engagement, and reporting requirements.

This overarching vision is proposed within the context that 89% of physicians work in solo practices or small-group practices (less than 10 physicians, with 50% working with four colleagues or fewer); a similar situation probably exists for psychologists. Because information in the healthcare system is presently partitioned into “silos” without connectivity, a clinical data and analytic infrastructure must be created to enable evidence-based medicine, especially since physicians spend 60% of their time seeking data. The importance of developing trust among the various stakeholders, as well as encouraging interdisciplinary collaboration, are major recurring themes.

Yet, during the recent Congressional deliberations on President Obama’s healthcare reform legislation, in their December 1, 2009 letter to the Senate Majority Leader, the American Medical Association (AMA) shared its view: “In lieu of the proposed nurse-managed health clinics, the AMA supports fully integrated multidisciplinary health care teams that are comprised of nurses and other health care professionals, which are led by physicians to ensure that patients get the best possible care” [highlighted in the actual letter]. The nurse-managed clinic provision was retained in the final version of the Patient Protection and Affordable Care Act (PPACA) (P.L., 111-148), notwithstanding the AMA’s expressed concern. Today, pharmacists make up the third largest group of healthcare professionals. Having matured to requiring the Doctor of Pharmacy or clinical pharmacy degree as their educational standard, their members are providing an increasingly wide range of health services (including behavioral health) to their patients.

**Change Is Coming**

It has consistently been reported that not only does care vary significantly, for reasons unrelated to appropriateness, but that even when the available…

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... evidence strongly supports a regimen of care (i.e., identified best practices exist), such care is received, on average, only half of the time. It should not be surprising, therefore, that, in general, the public is not aware of the concept of evidence-based medicine, nor does the current terminology used to describe the concept resonate with consumers when presented to them. We have a long way to go in developing the necessary level of “health literacy” among the general population. The IOM estimates, for example, that more than 47% of adults have difficulty locating, matching, and integrating information in texts. In fact, studies indicate that a majority of Americans get their health information from the media. Today’s consumers are largely unaware of the variability in healthcare quality, and do not have adequate information with which to make informed healthcare decisions that are based on evidence, and that reflect their values and preferences.

Currently, the results of 10,000 randomized control trials (RCTs) are published each year. “The complexity of modern medicine exceeds the inherent limitations of the unaided human mind.” “(T)he critical importance of evidence-based decision making does not yet seem to be on the radar screen of the majority of physician and hospital leaders, although the tipping point may be near.” A major challenge -- “(T)he United States devotes less than one-tenth of a percent of its total healthcare expenditures to understanding how well health care works and how to improve it, an amount that is small compared with the amounts invested to understand other major segments of the economy.”

Russell Lemle, Chief Psychologist at the San Francisco VA Medical Center, points out that, “The VA has been in the forefront of promoting the use of evidence based psychotherapies (EBPs) for mental health problems. However, they have instituted a narrow subset of EBPs (without transparent selection criteria), in a manner that limits VA clinicians’ use of the broader array of best available evidence-based interventions.” Reflecting the concerns of many clinicians, Morgan Sammons (Past-President of Division 55) cautions:

What is eminently clear is that the effect size of EBTs often does not differ substantially from the effect size of treatment as usual. There is often an .05 or better statistical difference between EBTs and a wait list or sham condition, but the difference becomes much smaller when you compare two active treatments. It’s quite disconcerting to the developers of evidence-based treatments but there it is. This is likely an expression of the ‘Wampold factor’ – all active credible treatments are about as good as any other active credible treatment. So rather than focusing on a narrow subset of EBTs, we should look at those components of active credible treatments that make them in general somewhat, although not terribly, effective. Perhaps it would be more efficacious and ecologically valid to focus on disease management strategies, rather than overly focusing upon a specific intervention that may not be applicable to many patients outside the confines of randomized trials. We live in a world of nonspecificity of effect – and it doesn’t make a lot of sense to devise highly elaborate, specific treatments for a range of conditions that don’t respond to highly elaborate, specific treatments any better than they do nonspecific ones. This isn’t antiscientific – indeed, it’s quite a scientific opportunity – but it defies the probability based analyses that the real ‘scientific’ psychology has become endeared of.

A report from the Commonwealth Fund indicated:

Using Pharmacists, Social Workers,
DeLeon, A Glimpse at..., continued

and Nurses to Improve the Reach and Quality of Primary Care. As the landmark health reform law goes into effect, bringing millions of uninsured Americans onto insurance rolls over the next five years, demand for primary care services will increase; So, too, will demand for more accessible, effective, and efficient models of primary care. Rather than hiring more primary care physicians, many medical practices, health centers, and other primary care settings have been experimenting with innovative models of care that both extend the reach of primary care physicians and increase the quality of ambulatory services... [bringing] pharmacists, social workers, nurses, and nurse practitioners to primary care practices. With them comes a new set of skills that can improve care and lower costs for patients with depression, physical disabilities, and other conditions that have proven difficult to treat in primary care settings....

The Commonwealth Care Alliance invested heavily in the model – spending approximately $4 million on 25 practices, many of which are located in low-income, safety net clinics. The investment, which covers the cost of hiring the nurse practitioners by the primary care practices and investing in infrastructure such as electronic medical records, is more than offset in reductions in hospitalizations for preventable conditions as well as delays in nursing home place-

Dramatic Change Is Coming

Over the next five years, we will witness the systematic implementation of what is perhaps the most significant social legislation enacted by the Congress since the Great Society programs of President Lyndon Johnson. Change is definitely coming. This could well be an extremely exciting era for our profession’s prescribing psychologists. Those with vision and perseverance will thrive and flourish.

Pat DeLeon, Ph.D., ABPP is affectionately known as the Father of RxP. He was President of the American Psychological Association (APA) in 2000. He won the Division 55 award for National Contributions to Psychopharmacology in 2001 and the Division 55 Meritorious Service Award in 2008.

Cosgrove, Psychiatric Taxonomy..., continued

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“Let food be thy medicine, and medicine be thy food”

Hippocrates’ tenet is universal and timeless. Once Western researchers isolated the biochemical units inside food and concentrated them for supplements, contemporary nutrition was born as a child of molecular science. Nowadays, so many things come as pills! Let us explore possible matches that may awaken the alchemy of mental healing while still including food in that mix…

By focusing on metabolic pathways, molecular nutrition has untapped potential as an ally and complement of pediatric psychopharmacotherapy. The fate of everything that enters the body depends on digestion, absorption, and circulation. Those processes entail a dialogue between two “brains” (in the gut and the head), from which nutritional status emerges. Metabolism (Pharmacokinetics, PK) responds to nutrition and its deficiencies, which also affect drug utilization (Pharmacodynamics, PD). Genetic polymorphisms, in turn, influence how drugs and nutrients are processed. Nutrigenomics, the “rubicon” of molecular nutrition, aims to modify gene expression, impacting mental disorders and recovery (Gillies, 2003; Kaput, 2004). For example, the 677C-T variant of MTHFR (methylene tetrahydrofolate reductase) impairs folic acid conversion to its active metabolite, 5-methyltetrahydrofolate (5-MTHF) (Bender, 2002). Depressed individuals with that polymorphism benefit from methylated folate (l-methyl folate or 5-MTHF) as an antidepressant-augmenting agent.

Developmentally, nutrition and nurturance are pillars of health operating through complex gut-brain-mind connections. Food, used in prevention and cure, also activates children’s genes. Currently, food can no longer stand alone in the pursuit of health. The reduced nutritional value of foods has been cited among the causes of illness—psychopathology included. A diet based on processed, sprayed foods, refined sweets, sodas, and trans-fats, a.k.a “junk food,” has been labeled “SAD” (Standard American Diet). This unhealthy diet has matching effects on mood, cognition, and behavior, let alone the increase in overweight children.

Although food compatibilities are an individual matter, a healthy diet template contains organic, unprocessed foods as follows:

- Plants (fruits, vegetables, nuts, and seeds)
- Moderate dairy and whole grains (check casein and gluten sensitivities)
- Moderate animal products (unless vegetarian)
- No Genetically Modified Organisms (GMO)
- No artificial preservatives, chemical pesticides or fungicides
- Adequate hydration from clean water
- Proper ratio of alkalinizing and acid-forming foods for pH balance

Combined with outdoor activities, supplemental nutrients and elimination diets help correct imbalances. But wholesome eating and lifestyle do not suffice to optimize health. In assessing child and adolescent mental conditions, today’s environmental challenges require that we factor in neurotoxins (heavy metals, pesticides, air pollutants), and inflammation from varied sources (infection, injury, diet) (Crinnion, 2009; Kroger et al., 2005). Being pro-inflammatory, negative stress or emotions also affect gastrointestinal (GI) physiology.

Enter nurturance into the epigenetic equation. As psychologists, we look at nutrition psychosocially. Food is tied to various rituals across the globe, often understood as a symbol of love. The quality of the eating experience matters: Do families take meals together? What is the “tone” at the dinner table? Family interactions affect the child’s vagal tone, and future behaviors (Gregory et al.,...
School peer pressure has also been linked to stomachaches and headaches. Further, socioeconomic and cultural factors can unfavorably impact nutrition. When chronic stressors beset the child’s daily life, GI distress may lead to mal-absorption and malnutrition. Then, a two-way vicious cycle emerges.

**Nutrient Deficiencies β à Mind-Brain-Behavior Dysfunction**

The gut, our “second brain” (Gershon, 1999) contains leads to a child’s suffering through GI symptoms (GERD, IBS, IBD, UC, “leaky gut”) (Gerson et al., 2006). The mind-brain-gut connection operates through feedback loops among the central nervous system (CNS), the enteric nervous system (ENS), and the enteric endocrine system (EES), with immune modulation playing an important role. Thoughts and feelings set the tone for those systemic interchanges.

Psychotropic drugs were designed to improve mind-brain-behavior relationships by restoring neurotransmitter balance. The brain (along with the heart) is the organ requiring the most energy to work properly. Nutrients work synergistically to create that energy and maintain health. Conversely, certain drugs damage mitochondrial function. The mitochondria fuel, ATP (adenosine triphosphate), mediates cell energy generation and inter-neuronal communication. The medications that impair mitochondria include antidepressants, antipsychotics, and mood stabilizers. For instance, valproic acid (VPA) depletes carnitine and decreases beta-oxidation in the liver, contributing to intracellular lipid retention. Antipsychotic drugs that inhibit functioning of the electron transport chain (ETC) are: some old antipsychotics (chlorpromazine, fluphenazine, haloperidol), and several atypical antipsychotics (risperidone, quetiapine, clozapine, and olanzapine). Further, among the benzodiazepines (BZD), diazepam inhibits brain mitochondrial function, while alprazolam does so in the liver (Neustadt & Pieczenik, 2008).

Nutritional strategies can counteract deleterious drug effects. As we learn more from controlled clinical trials, we will be able to refine those interventions. Some work exists on drug effect enhancement through nutrient co-administration with antidepressants in adults. Examples are chromium and inositol with regard to Selective Serotonin Reuptake Inhibitors (SSRIs) and Selective Norepinephrine Reuptake Inhibitors (SNRIs). Magnesium (Mg) was found to benefit children on stimulants (Stargrove et al., 2009). There is support for methylated folate (5-MTHF) and s-adenosyl-methionine (SAMe) as antidepressant augmentation strategies (Papakostas, 2010; Stahl, 2007). One study successfully used free form amino acids as “add-on therapy” to mirtazapine (Remeron) in Major Depressive Disorder (MDD) (Ille et al., 2007).

In pediatric nutrition, the first double blind, placebo, controlled clinical trial took place over fifty years ago, with 120 severely disturbed children (primarily schizophrenic spectrum and bipolar). That research shed light on the positive role of vitamin B3 (niacin and niacinamide) megadoses, also critical for the energy cycle as NAD+/NADH and NADP+/NADPH (Hoffer, 1999). Since then, nutrition studies have focused on Attention Deficit/Hyperactivity Disorder (ADHD) and Autism Spectrum Disorders (ASD) (Kapalka, 2010). There is also pediatric research on B vitamins (B6, B2, and B3) in seizure disorders and their behavioral implications. Two recent studies respectively focused on botanicals for ADHD (Katz & Kav, 2010), and vitamin D3 in autism (Meguid et al., 2010). While pediatric research is sketchy, evidence abounds linking nutritional deficiencies to all mental, emotional, and behavioral disorders (Werbach, 1991). Applying that knowledge is likely to support growth and long-term health, as well as alleviating children’s symptoms.

Several nutrients may be supportive of neurotransmitters: vitamin A, D3, Omega 3 essential fatty acids (EFA), free-form amino acids, all B vitamins, (continued on pg. 70)
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... and minerals (Fe, Cu, Zn, Mg, Li). With regard to EFA’s, a large cross-sectional study of Japanese teenagers showed a higher intake of fish, EPA, and DHA, to be inversely correlated with depression in teenage boys (not significantly for girls) (Murakami et al., 2010).

Other nutrients for brain energy include: alpha-lipoic acid, vitamin C and E, n-acetylcarnitine, n-acetylcysteine, glutathione, and phytochemicals. CoQ10, intimately tied to ATP production, is a nutrient of interest in relation to bipolar disorder (NIMH ongoing study, 2010). PEA (Phenyl Ethyl Amine), from Blue-Green Algae, is a natural stimulant used in ADHD and depression. It acts to release catecholamines. Antioxidants in those algae produce MAO-B inhibiting effects comparable to the drug selecline. This protects PEA from rapid metabolization, allowing its entry in the brain (Sabelli, 2002). Lithium orotate is sometimes used in nutritional therapies of bipolar depression. Because it more readily crosses the blood brain barrier than prescription lithium and stays longer in the brain, lower doses are effective (Barker, 2008; Kling et al., 1978; Nieper, 1973) with minimal toxicity (Sahelian, 2009). Research is needed in this area.

Among botanicals, three classes are relevant for medical psychologists:

- **Adaptogens (“stress busters”):** *Ashwagandha* [Indian Winter cherry], *Garum armoricum*, *Glycyrrhiza glabra* [licorice], *Hypericum perforatum* [St. John’s Wort] *Rhodiola rosea*, etc. (Head & Kelly, 2009)
- **Nootropics (cognition enhancers):** pycnogenol, DMAE (dimethylethanolamine), PEA (from *Aphanizomenon Flos-Aquae* or AFA), Alpha GPC (l-alpha glycerylphosphorylcholine), etc.
- **Detoxifiers (promote biotransformation for toxin elimination through the liver and kidneys):** *Silybum marianum* [milk thistle], *Taraxacum officinale* [dandelion], *Berberis vulgaris* [European barberry], etc.

The field is ripe to explore molecular nutrition and botanicals as potential treatment adjuncts in pediatric mental health. The long-term impact of drugs remains largely unknown. Drug side effects may be coupled with subtle, cumulative nutritional deficiencies, and the risk of developing metabolic disorders (e.g., atypical anti-psychotics, lithium).

While nutrient efficacy studies are few, controversy now surrounds antidepressants (Greenberg, 2010). A review of four meta-analyses of efficacy trials submitted to the FDA noted that antidepressants are only marginally efficacious compared with placebo, and that their apparent efficacy has been profoundly inflated by publication bias.

The development of biomarkers may eventually identify patients for whom antidepressants are appropriate, both in the short and the long term (Pigott et al., 2010). Nutrition and pharmacology could coalesce in that endeavor through individualized metabolic analysis. Laboratory testing that only assesses serum levels may not reflect nutrient functionality. In contrast, metabolic pathway analysis reveals whether vitamins, amino acids, EFA’s, minerals, etc., are “doing their job.” For example Organic Acids, a urinary test, yields a broad-spectrum profile. This includes the monoamine neurotransmitter metabolites Homovanillate (HVA), Vanilmandelate (VMA) and 5-Hydroxy-Indole Acetic Acid (SHIAA), as well as metabolites of various B vitamins, Krebs cycle components, oxidative stress, liver detox indicators, and measures of GI immune function (Lord & Bralley, 2008).

It has been suggested that the neurobiological correlates of childhood depression may differ from adult ones. Many children and adolescents do not experience hyper-cortisolism. They also show a weaker response to antidepressants than adults. An animal study modeling childhood depression found low levels of dehydroepiandrosterone sulfate (DHEA-S) and BDNF (Brain-Derived Neurotrophic Factor) (Malkesman et al., 2009). Certain nutrients (omega 3 DHA, curcumin, and l-
glutamine with co-factors) could be used to upregulate BDNF transcription. With regard to Autism Spectrum Disorders (ASD), a recent review article identified the following biomarkers: oxidative stress, deficiencies in methylation, glutathione, and mitochondrial function, intestinal dysfunction, and neuroimmune dysregulation. Biomarker-guided interventions involving nutrition and medication, as needed, have helped children with ASD (Bradstreet et al., 2010). Blaylock & Struneka (2009) emphasized immune glutamatergic dysfunction in ASD, proposing corrective nutrition.

Another reason to observe children and adolescents from novel angles is two-fold. First, they are constantly changing. Secondly, they do not quite fit into medical nosology. One possible angle is mitochondrial dysfunction. Mental problems express themselves in the body’s energy system through disruptions in any of its organs, muscles, nerve terminals, etc. Test findings of abnormalities in energy cycle intermediates (e.g. Organic Acids) can help address their metabolic causes, allowing for nutritionally improving neurophysiological activation and obtaining psychological benefits. Such functional awareness is the starting point of holistic treatment.

This writer’s work, within a psychotherapeutic matrix, illustrates dramatic improvement in cognition, mood, and behavior. This was a result of individualized programs consisting of diet, gentle detox, nutrients, probiotics, herbs, and homeopathy, alone or in combination with pharmacotherapy (Galle, 2006, 2010). The therapeutic use of foods and diet with children and adolescents opens the door to health-building habits for entire families.

Homeopathy also deserves mention. Dilutions may work through electromagnetic (EM) signals (Davenas et al., 1988; Montagnier et al., 2009; Tournier, 2008, 2010). Homeopathy’s profound energetic impact seems to “move” molecules, helping the whole person heal. An encouraging study involves children with ADHD (Frei et al., 2005). One article makes a case for its use by medical psychologists (White, 2009). The counterpoint is a meta-analysis casting a negative vote (Altung et al., 2007). Homeopathy is gaining popularity among parents as a non-invasive method. While publications and clinical trials are sprouting, the jury is still out. Rather than making blanket generalizations about a treatment mode, it behooves us to observe what patient characteristics make them likely to benefit from certain interventions (Gerber, 1988).

The stage is set for medical/prescribing psychologists to practice integrative mental and behavioral care. Brain imaging is beginning to show that psychotherapy improves neuro-plasticity and vagal tone through the mind connection, with no side effects. Pharmacology can give us an edge in the healing process, particularly in the initial phases of treatment. However, we risk side effects. Drugs utilize and may deplete nutrients, while nutrients replenish the metabolic pool. For example, neurotransmitter production depends on amino acids, vitamins, mineral cofactors, and enzymes.

Molecular nutrition addresses biological roots as it tackles individual metabolism, supplying substrates for growth, function, and illness prevention, with rare side effects. Key advantages of optimal diet and nutrients in relation to pharmacotherapy are:

- Drug effect enhancement
- Drug dose reduction
- Fewer side effects
- Detoxification support
- Ease in the tapering process

Considering these advantages, nutrition becomes a compelling link to the pediatric primary care team. As scientifically trained professionals, and at this state of the art, it is timely to update informed consent forms by adding Complementary and Alternative Medicine (CAM) options that include nutrition.

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The responsible practice of nutrition calls for caution. Firstly, nutraceuticals do not go through Food and Drug Administration (FDA) approval, while psychotropic drugs do. Although OTC supplements are helpful for health maintenance, multiple products on the market have varying levels of purity. “Medical grade” nutraceuticals tested for bioavailability are suitable for therapeutic purposes. Companies following that procedure (Good Manufacturing Practices) voluntarily adhere to stringent production and quality control. Secondly, little is known about nutraceuticals and herbs PK & PD. Work on drug-herb-nutrient interactions has been emerging the last decade (Pelton et al., 2001). Certain nutritional and herbal therapies may impair drug effects by stimulating healthy physiological responses, which increases toxin and drug metabolism. In those cases, it is best to separate drug intake from the nutrient/herb by a few hours (Stargrove et al., 2009). We must consult reliable guides to ensure that our selected supplements support metabolism and drug effects, without antagonizing the organism.

Nutritional medicine is gaining gravitas by the weight of evidence from consumers, health practitioners, and research. An evidence base for pediatric nutrition needs to consider that nutrients work “in teams.” A drug, in contrast, is usually tested in isolation. In addition to single vitamin research, there is much to learn from case studies using supplement programs based on psychological and biochemical individuality. Collaboration with the primary care physician is strongly recommended, as well as consultation with a clinical nutritionist (CCN). Armed with that objective health information, one may safely and effectively apply somatic methods as adjuncts at different stages of pediatric mental and behavioral care. Properly used drugs, nutrients, herbs, and homeopathy are catalysts enabling our young patients to engage in the learning process of psychotherapy.

Psychologists are invited to learn molecular nutrition in their postdoctoral psychopharmacology training. Alliant International University has paved the way with its “Introduction to Nutritional Science and Its Role in Psychopharmacology,” offered after the science and clinical medicine courses. Further progress in that direction entails a specialized training module. This will enable the inclusion of Nutritional Pharmacology within the scope of practice of medical/prescribing psychologists.

Dr. Galle specializes in clinical psychology, forensic neuropsychology, psychopharmacology, clinical hypnosis, and biofeedback. She is a traditional naturopath, Board Certified clinical Nutritionist and Classical Homeopath, Functional Medicine Practitioner, and Certified Yoga Instructor. She is on the clinical faculty in Departments of Pediatrics at George Washington University Medical School (Children’s National Medical Center, Adolescent & Young Adult Medicine) and Georgetown University. She is on the adjunct faculty at Alliant International University, and teaches the “Introduction to Nutritional Science and Its Role in Psychopharmacology,” course in the Postdoctoral master’s in clinical psychopharmacology program. She is also on the faculty and advisory board of the British Institute of Homeopathy.

References


Galle, Molecular Nutrition..., continued


Attention deficit hyperactivity disorder (ADHD) is the most common disorder in pediatric practice (American Psychiatric Association, 2000), and affects about 8% of children and adolescents and about 4% of adults. ADHD is characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that is more severe and frequent than is usual for persons at a comparable level of development. ADHD is observed across two or more contexts, such as home and school.

There is a familial and possibly genetic connection to ADHD (Keyes, Legrand, Iacono, & McGue, 2008). The dopamine hypothesis is compelling as a biological understanding of ADHD. There is good evidence that those with ADHD have impaired DA/monoamine oxidase (MAO) activity (Volkow et al., 2007; Zimmerman, 1990; Zimmerman, Buchsbaum, & Murphy, 1980). MAOs metabolize catecholamines such as serotonin (5-HT), norepinephrine (NE) and DA. The MAO hypothesis has also been associated with sensation-seeking behavior (Zuckerman, 1971). Dysregulation of MAO results in less serum DA and NE.

ADHD has also been identified as a neurological disorder related to an underactive amygdala (Jones et al.) and smaller left putamen (Wellington et al., 2006). Under- arousal of cortical extrapyramidal bodies and poor executive controls is a commonly held neurological model of ADHD, particularly in terms of co-morbid conduct disorders (CDs), involving aggression, defiance, disobedience and failure to comply across two or more contexts (Jones et al., 2008).

In a thorough review of juvenile detainees covering 13,778 boys and 2,972 girls, Fazel, Doll and Langstram (2008) found that for boys, 11.7% were diagnosed with ADHD and 52.8% with CD. For girls, 18.5% were diagnosed with ADHD and 52.8% with CD. ADHD is also a major risk factor in adult criminal debut (e.g., Babinski, Hartsough, & Lambert, 1999), particularly for males with both CDs and hyperactivity-impulsivity, where 71% had some criminal involvement and 23% had an official arrest record. Those with hyperactivity-impulsivity symptoms and severe CD had a 57% arrest record, and 54% of males with ADHD had self-reported criminal involvement.

Psycho-stimulants, such as dextroamphetamine, Adderall, Cylert, and Ritalin (Methylphenidate), are currently the gold standard pharmacological treatment of ADHD in children, adolescents and adults. Intriguingly, prescribed stimulants increase DA activity but chronic drug abuse down-regulates it (Sonuga-Barke, 2003). Cannabis in particular reduces DA (Raiteri, 2006). Thus, prescribed stimulants work in up-regulating DA and non-prescribed drugs do not. Prescribed stimulants are monitored daily, while non-prescribed drugs are sporadic, of inconsistent composition, and introduce a variety of neurotransmitters other than DA.

The use of psycho-stimulants is generally effective in reducing the symptoms of ADHD (Brown, Amler & Freeman et al., 2005). But there is the potential for neurotoxicity (e.g., psychotic/mania adverse events), particularly over the longer term (Berman, Kuczenski, McCracken, & London, 2009). And patients often worry about the possibility of provoking addiction, concern which tends to interfere with proper treatment. The key question for treatment of ADHD with psycho-stimulants is one of the prudent practice of balancing benefits against such adverse effects. Quantifying these potential risks is an ongoing concern (e.g., Mosholder, Gelperin, Hammad & Phelan, 2009; Vedantam, 2009).

In general, ADHD treated with stimulants reduces rather than increases risk of substance abuse (Biederman, 2003;
Faraone, Biederman, Wilens and Adamson, 2007; Wilens, 2003, 2004). Thus, there is no compelling evidence that stimulant medications are a gateway for substance abuse for most patients. Untreated ADHD has a relatively more probable level of serious risk than treatment with stimulants.

Biederman (2003) found that substance abuse was three or four times greater among untreated people with ADHD. Untreated adolescents with ADHD often seem to self-medicate with a variety of illicit, dopaminergic drugs (Lambert, 2005), including stimulants, alcohol, tobacco, cocaine and amphetamines. Elkins, McGue and Laconno (2007) examined 1512, 11 year-old twins with ADHD, following them from 14 (age of onset) to 18 years of age and found that hyperactivity/impulsivity predicted all types of substance use even when controlling for CD. Conversely, Biederman et al. (2008) found no such connection when controlling for CD.

However, the issue of psycho-stimulants and addiction is not entirely benign. The potential risk for abuse of psycho-stimulants is high. In their extensive review, Wilens, et al. (2008) found that non-prescriptive, illicit use of stimulant medications is fairly common in both ADHD and non-ADHD populations. Stimulant medications share a common element with many common substances of abuse: the increased concentration of dopaminergic (DA) neurotransmitters in the nucleus accumbens. Thus, psycho-stimulants are highly reinforcing and are also prone to dependence. Moreover, when these medications are first introduced in adolescence, there is increased sensitivity to their reinforcing effects (Biederman et al.; Mannuza et al., 2008; Volkow & Insel, 2003), and the potential for seeking them corresponding to the maturity of the catecholamine system.

Once started, patients with ADHD should continue stimulant medication. The introduction of stimulant medications for ADHD for children, and then discontinued before adolescence, does seem to increase the risk for substance abuse in adulthood. A potential explanation for these findings is that prescribed stimulant medications may permanently up-regulate the DA threshold. The most common drug of choice is tobacco, which is a very dopaminergic and adrenergic substance. Adolescents with ADHD are less likely to smoke, or may smoke less, if they are treated with stimulant medication (Lambert, 2005; Whalen, Jamner, Henker, Gehricke & King, 2003). This protective effect of stimulant medication stopped shortly after it was discontinued; those with ADHD who had been treated with stimulants were significantly more likely to be daily smokers in adulthood. Stimulant treatment was also associated with future amphetamine and cocaine dependence. CDs were also associated with marijuana use. Molina and Pelham (2003) found that children with ADHD administered psycho-stimulants developed substance abuse as adolescents when they were co-morbidly diagnosed as oppositional/defiant (ODD) and conduct disordered (CD), and were engaged in illicit drug use in the last six months.

A social-developmental perspective to substance abusing has not been applied to the understanding of stimulant prescribing. Dodge et al.’s (2009) dynamic cascade model of substance abuse onset invites a spectrum approach to identifying those most at risk for prescriptive-induced drug problems. Dodge et al. noted that ADHD treatment may be associated with later drug abuse perhaps because conduct disorders are themselves co-morbid with substance abuse (e.g., Mannuza, Klein, Bessler, Malloy, & LaPadula, 1998). Sampling 304 males and 281 females longitudinally from kindergarten to grade 12, Dodge, et al. tracked the developmental occurrence of risk factors at each of six stages of development (i.e.: Child & Context, Early Parenting, Early Behavior, Early Peer Relations, Adolescent Parenting, & Adolescent Peer Relations Domains). These risk factors increased the probability of lifetime substance abuse from .69 to .91. For the Child and Context developmental stage, child risks included...

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... temperament, medical complications and maternal alcohol abuse. Early childhood context risks included social status, adult-child ratio, teen pregnancy, unplanned pregnancy, family stress, and social isolation. Early Parenting stage risks included factors such as paternal non-involvement, aggression, violence, abuse etc. Early Behavior stage problems included externalizing problems. Early Peer Relations stage problems reflected peer rejection. Adolescent Parenting stage risks included lack of parental supervision. Adolescent Peer Relations and context factors included neighborhood safety, mother and peer drug abuse, peer and friend deviance, and substance abuse by grade 12. Thus, the prodromal features of CDs overlap significantly with the progression towards lifetime substance abuse. Research designs which tease apart these developmental patterns from the effects of stimulant medications would substantially help to address the key issue of whether or not to prescribe these drugs for children and adolescents with behavior problems, and at what juncture in development.

As reported by Wilens, Faraone, Biederman and Gunawardene (2003), who conducted a large meta-analysis of the stimulant-substance abuse question, Lambert and Hartsough (1998)’s sample, which presumably included the Lambert (2005) sample, had a larger than normal incidence of subjects with co-morbid CDs. CDs are associated with substance abuse problems, apart from stimulant medications. These findings complement those of Mannuzza et al. (2008) who found that late initiation of stimulant medications was associated with greater substance abuse as well as mediated by antisocial personality disorder (APD). That is, those children treated with stimulants who were also conduct disordered were more, rather than less, likely to become substance abusers (e.g., cocaine, nicotine, etc.). Accordingly, these data support the view that early use of stimulants increases subsequent cigarette smoking and is a potential gateway for other forms of substance abuse, when CDs are part of the clinical ADHD picture. Barkley (2002) also observed the connection between cocaine abuse during adolescence and young adulthood for those with CD (2.35 times) and for those treated with stimulants (4.11 times).

Again, the implication is that when stimulants are prescribed for children with ADHD, it is important not to discontinue them in adolescence, especially when CDs are involved. Not medicating increases the risk for substance abuse and is not a useful alternative in the prevention of substance abuse. Molina and Pelham (2003) found that children (n = 142) diagnosed with ADHD in childhood were significantly more likely in adolescence to use higher levels of alcohol, tobacco and illicit drugs. The more severe the symptoms, the more drugs were used. ODD and CD symptoms, and persistence of CD into adolescence, predicted elevated drug use. Wilens (2004) also found this for adults. Again, the more severe the symptoms, the more drugs were used. ODD and the persistence of ADHD were also associated with high rates of substance abuse. Intriguingly, smoking also increased more over the school year for the non-medicated group, suggesting that dopaminergic substances upregulate the baseline DA level. The effect size was largest for tobacco and marijuana use suggesting that there is a more complex neurotransmitter system involved in substance abuse.

Accounting for the connection between ODD/CD and the risk of increased drug abuse associated with stimulant medications has serious implications for managing young offenders, and children and adolescents with ADHD and at risk for elevated ODD/CDs. Moreover, using stimulants and then discontinuing them during adolescence raises additional risk factors within the non-ODD/CD ADHD population. The overlap in ADHD/CD/ODD and the development of APD also needs to be considered. A history of violent antisocial behavior has a significant actuarial component (e.g., Quinsey,
Harris, Rice & Cormier, 1998) which includes a large contribution of severe elementary school maladjustment, history of criminal violent or nonviolent offenses and a high Psychopathy Checklist score (Hare, 1996). CD originates in either childhood (before age 10) or adolescence and ODD originates in childhood (before age 10) and both are common co-morbidities of ADHD (Webster & Hucker, 2007). Consequently, the risks of drug abuse associated with stimulant medications may require that clinicians first screen those children and adolescents with CDs/ODDs, and take special care to use medications without a pronounced subjective “high,” and to continue the regimen throughout childhood and adolescence. The implications are particularly germane to correctional populations, where such disorders are more commonplace.

Zuckerman (1971)’s Sensation Seeking Scale (SSS) is an attractive construct bridging the psychopharmacological perspective in helping to account for the dynamics of stimulant discontinuation, conduct problems, and the risk for future substance abuse. Zuckerman described those scoring high on the SSS as having the need to seek varied, novel, complex experiences, and the willingness to undertake a variety of risks to achieve arousal. It was hypothesized that serum monoamine oxidase inhibitors (MAOs) are inversely connected to risk taking. The clearance of dopamine (oxidation) depends in part on the rate of its degradation by MAO-A and MAO-B (Weyler, Hsu & Breakfield, 1990). The higher the serum levels of MAO, the lower the levels of 5-HT, NE and DA. Thus, it was hypothesized that there is a negative relationship between serum MAO and risk-taking. Indeed, Zuckerman (1990) and Zuckerman, Buchsbaum and Murphy (1980) identified a deficit in MAOs in those high in risk-taking. Indeed, MAO-inhibitors serve to decrease depression and risk-taking by increases serum DA. Zuckerman reasoned that a lack of regulation of DA by MAOs may produce the augmenting response of sensation seekers. Also, Zuckerman and Kuhlman (2000) found a significant relationship between (high) MAO levels and sensation-seeking in terms of smoking, drinking, drugs, sex, driving and gambling behaviors. MOAs oxidize 5-HT into NE and DA which are released by stimulants such as amphetamines, cocaine and nicotine. Similarly, Akkerman, Harro and Kabinse (2003) and Paaver, Diva, Pulver and Harro (2006) found an inverse connection between MAO platelet activity and impulsivity and risk driving behavior.

While Zuckerman et al. (1980) did not link the sensation seeking construct directly to criminality, it is related to risk taking and being young and male, precisely those components that are related to criminogenic behavior. Research needs to be done connecting the risk taking personality, CDs and risk of substance abuse as the origins of antisocial personality disorder (APD) may well be linked to the neurological roots of failure to learn from experience, a cardinal feature of CDs. Alternatives to stimulant medications, such as selective serotonin reuptake inhibitors (SSRIs) for conduct disordered children and adolescents with ADHD should be considered, as there is no drug-induced “high.” However, preliminary results are mixed. For example, Olvera, Pliszka, Luh and Tatum (1996) found a 50% SSRI effectiveness in a sample of 16 children and adolescents, using the Connors Parent Rating Scale. It is not clear whether alternatives to dextroamphetamines such as Adderall or Strattera, formulated to reduce the “high” normally associated with stimulant use, are actually less prone to being abused by children and adolescents with ADHD and CDs. Clearly, more research on the drug abuse profiles Young Offender populations with ADHD and CDs and psychopharmacological treatments is warranted.

Dr. Brian J. Bigelow is a Registered Psychologist in the Province of Ontario with an ABPP in Child and Adolescent clinical Psychology. He is a Full Professor and the Anglophone Director of the M.A. / M.Sc. in Human Development at Laurentian University. He also has a part-time independent practice, treating children and adolescents and performing related forensic…

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assessments. Dr. Bigelow has completed the FICPP designation with the Prescribing Psychologists Register. He is currently on the RxP Task Force of the Ontario Psychological Association and is Secretary-Treasurer of the Psychopharmacology section of the Canadian Psychological Association.

References


Bigelow, The Self-Medication Question..., continued


Scott Borrelli was a colleague whom we lost much too soon. An American who left for a year’s stint in Europe in 1989, he fell in love with the European countryside, the lifestyle, the people, and rarely returned to the U.S. after that. Meeting his life partner, Gerco Verduijn, in 1990 in Munich, whom he married on November 18, 2005, sealed his commitment to living abroad.

Scott led an admirably active and productive life as a psychologist, both in the U.S. and in Europe. Having grown up in Boston, he graduated from Boston University, cum laude in 1972; received his Ed.M. in Counseling Psychology from Salem State College in 1975, having written his thesis on “A New Scoring System for the Thematic Apperception Test”; and earned his Ed.D. in Counseling Psychology from Boston University in 1979. Scott went on to achieve the ABPP in both clinical Psychology and Counseling Psychology, as well as the FICPP from the International College of Prescribing Psychologists (2002) and Board Certification as a Medical Psychologist from the Academy of Medical Psychologists. He had completed all of his coursework for his MSc in clinical psychopharmacology from Fairleigh Dickinson University in 2007. Scott was an international affiliate member of Division 55 and the APA. Scott was a licensed psychologist in Florida, Massachusetts, California, and Guam, as well as a chartered clinical psychologist, a chartered counseling psychologist, and a chartered scientist in The British Psychological Society.

In the last two decades, Scott was a collegiate professor, practicum/internship coordinator of The University of Maryland, European Division; on the faculty in psychology and Buddhism at the International Institute of Tibetan and Asian Studies (his preferred practice was with the Japanese Nichiren Daishonin’s Buddhism); the Director of the University Counseling Services at The American InterContinental University of London, Coordinator of Special Needs and Disability Services; a research associate in psychology from Boston University; faculty instructor and mentor in psychology at Walden University, Minneapolis, Minnesota; a consultant clinical psychologist with the Psychiatric and Psychological Consulting Services, Ltd., in London; the Chief Editor and Column Contributor of The EMDR Practitioner in Europe; a preceptor/supervisor in the Substance Abuse Rehabilitation Programs in the U.S. Navy Medical Clinics, in London; and had a small clinical practice along the Costa del Sol in southern Spain.

Scott was enthusiastic about his work in radio and television and consulted with the BBC. He was published in the Journal of Elder Abuse and Neglect, (Division 42’s) The Independent Practitioner, the Junge-Kinder Journal of the Association for Young Children (Europe), and The Stars and Stripes. He wrote on topics such as the British reaction to terrorist bombings in London, family violence, elder abuse, child advocacy, stress management and clinical psychopharmacology (with Dan Egli).

Scott was always a warm, energetic presence in the lives of all of the people whom he touched. Perhaps it was because of his many creative outlets, including his music; he had been a guitarist, lead vocalist and pianist in two different bands in earlier years. Even while fighting his illness, having been diagnosed with Non-Hodgkins Mantle Cell Lymphoma in October 2003, Scott remained optimistic, steadfast, and generous in all of his relationships and loved his life of domestic tranquility on the sunny coast of Spain. Scott succumbed to his illness on July 28, 2010.

Scott leaves behind many good friends and colleagues and is survived by his partner, Gerco, and his daughter Darcie. We will all miss him.
Go to www.div55conf.com for registration and hotel discount info!

- **Preconference Workshop** (Friday, March 11) by Robert Julien, M.D., Ph.D., Author of *A Primer of Drug Action*—“Child and Adolescent Psychopharmacology, Prenatal Through High School”

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- Presentation by John Preston Psy.D., ABPP, author of *Handbook of Psychopharmacology for Therapists*—“Stress-Induced Brain Damage and Neuroprotection”

- Presentation by Huib Van Dis, MD., Ph.D., Chairman of the Division of Psychology in Health Care of the Nederlands Instituut van Psychologen—“Diagnosis and Treatment of Delirium From An RxP Perspective”

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To Division 55 Award Winners at the 2010 APA Convention:

Kevin McGuinness, Ph.D., MP, ABPP—The 1st recipient of the Major L. Eduardo Caraveo National Service Award, established to honor the memory of prescribing psychologist Major Eduardo Caraveo, who was killed in the shootings at Ft. Hood

Steven Tulkin, Ph.D., MSCP—Winner of the Award for Outstanding Advocacy at the National Level for a long history of involvement in training psychologists to prescribe, and a history of effective advocacy

Don Fineberg, M.D.—Winner of the Award for Outstanding Advocacy at the State Level, for his continued work in the state of New Mexico in support of prescriptive authority for psychologists

Susan Patchin, Psy.D., MSCP—Winner of the Special Advocacy Award in recognition of her work in the state of Oregon on behalf of prescriptive authority

Senators Laurie Monnes-Anderson, RN and Bill Kennemer, Ph.D.—Winners of the Outstanding Legislative Advocacy award for their legislative support of prescriptive authority in the state of Oregon

Amir Sepehry, M.Sc.—Winner of the Student Advocacy Award in recognition for his efforts as a graduate student to advance prescriptive authority in Canada

Jessica Funk, M.A.—Winner of the 2010 Patrick H. DeLeon Prize for her dissertation entitled, “Psychology’s Expanding Scope of Practice: An Historical Analysis of Relations with Psychiatry, Prescriptive Authority, and Legislation”

Laura Holcomb, Ph.D., MSCP—Award for service as Division 55 Tablet Editor for 2009 and 2010 (Editor’s Note—Thank you!)
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