A New Year And New Times: Advances and Stumbles for Psychology

By John Caccavale, Ph.D.

Like the start of every New Year most people take a step back to evaluate where we’ve been and where we would like to go. Sometimes the look at the short side of history can be very unpleasant or surprising. It’s the long run, however, that counts and ably reading the trends is where the real payoffs occur. At best, predicting any future event can be problematic, yet, trends can be revealing if we look, listen and feel.

As a Psychologist I have always paid attention to objectivity because it is what we were trained to do. Minimize subjectivity was the spoken and unspoken mantra of our training. Reading “tea” leaves is not a reliable method. Nevertheless, there is a feel that one must rely upon when looking at the future. I call this the “Subjective Truth.” Numbers and data are fine but how I feel about their relationship to reality also is important.

Three years ago NAPPP started a public awareness campaign to educate the public and anyone else who would listen that medications as a first line treatment was not only based upon bad science and research but could also be harmful to patients. We focused particular attention on prescribers who ultimately are legally responsible for ordering these drugs. We believed then, as we still do now, that physicians need to be more reflective and knowledgeable about the treatments that patients with mental, emotional, and behavioral disorders receive.

We took a lot of heat both from many in our own profession and from organized medicine. Instead of looking at what we were saying, these groups and individuals believed that we were attacking physicians. Obviously, our intent and message was to educate those who are the last line but most important in the pharmaceutical queue -- the patient. This was not an attack but a call for reason. Looking back, our campaign, which included print press ads, television spots, news articles and outreach to other stakeholders has been a success that can be measured both objectively and subjectively.

Things Do Change

Right now we can safely state that in a majority of quarters, there is great suspicion about the use of psychotropic drugs. Hardly a day or week goes by without some article, news report or research study that does not question the effectiveness of using these drugs as a first line treatment. I could cite any number of current studies to support this conclusion.

For the first time in a decade, the retail sales of psychotropic medications are declining. Prescriptions for antidepressants, for example, have declined over the past two years. Likewise, sales of antipsychotic medications are declining mostly because the public and physicians realize and have been educated about the misuse that pharmaceuticals have perpetrated on both. Is it any wonder that one would become skeptical about prescribing
and taking an antipsychotic medication to promote sleep?

Many third party reimbursers also are requiring advanced approval before these drugs are prescribed. When was the last time that a commercial for Abilify was aired five times in an hour on TV? So things can and do change but only when there is an effort to make it happen.

**The Affordable Care Act and Psychology**

Of course for some the question can more appropriately be phrased as The Affordable Care Act and Society. Presently, few people can objectively see any real positive change resulting from what is touted as “Universal Healthcare.” From an analytical perspective the ACA falls far from the effort to promote either universal healthcare or quality healthcare. From an economic perspective, it is costly and most likely will be inefficient.

One reason for this is that the ACA relies upon the wrong market forces to promote the goals of universal healthcare. Relying upon Wall Street, healthcare mega-corporations to act in the public interest is simply unjustified. Their stated existence is to make a profit and providing quality healthcare at a reasonable cost many times is not as profitable as a system that charges for but denies services. Objectively, one can make a strong case for the demise of the ACA, but where is the “Subjective Truth” in all of this?

I believe that the ACA will be the single greatest factor in promoting a single payer system for healthcare. Moreover, aside from what many think about Medicare, if the ACA fails, which seems like a good bet, the fix will focus on a single payer system. That said, how does the ACA in its present form affect Psychologists? This is the question.

A single payer system will no doubt rely upon standardized reimbursement. This may be a downside for providers. However, the upside to Psychologists is that a single payer system will provide access without the current restrictions that we now experience. No more waiting for referrals--patients will be able to self refer, so volume will make up the difference.

Right now, many states have rejected implementing any healthcare reform. In those states, patients with mental health needs essentially go untreated. A single payer system would eliminate this barrier to treatment. Again, psychologists will get access to patients where we now get so little.

I realize that this sentiment goes against the grain of many free-market advocates. Clearly, the present system and the ACA simply do not work. Psychologists have the most to gain whether the ACA succeeds or fails.

Historically, organized medicine has been the opponent of any government-sponsored healthcare. The ACA is no exception. This opposition follows in the same pattern that Medicare did but with one exception. Many physicians are opting out of the ACA. There is a push
to establish “boutique” practices where a limited number of patients pay an up front yearly fee to receive medical services. In return, these patients will have access to their physician and receive more time and quality care. This was supposed to be the way medicine is delivers sans the up front fee. If you can pay the fee, anywhere from $1000 to $5000, annually, it’s a great deal. Unfortunately, many people will not be able to afford this type of arrangement.

Now, getting back to Psychology. Among those who are opting out of the ACA and moving toward fee-for-service are psychiatrists. Even though psychiatrists have mostly been absent from the Medicaid roll of providers, where many patients will be channeled by the ACA, there is a real movement by psychiatrists to flatly reject any form of payment from insurers. This will result in opportunities for Psychologists. I think that should this occur, psychologists would be in a position of strength. We only need to be open to the opportunities because in every situation there are opportunities. Ask our colleague, Dr. Nicholas Cummings about opportunities that arise out of adversity. For those who may be unaware of Nick’s analyses spanning 60 years of Psychology, just Google his name.

So Where Do We Go From Here?

My subjective truth tells me that the objective data is calling Psychology and Psychologists to a new beginning. More than ever, the transition from Clinical Psychology to Medical Psychology is where opportunity lies. NAPPP, along with the American Academy of Medical Psychology, have been promoting this transition and training as a policy. We do so because our long experience as senior practitioners affords us having history as our guide. Clearly, Clinical Psychology has been declining for so many reasons, such that we need a makeover. Medical Psychology allows us to do this.

We need to distinguish ourselves from the many nondoctoral level practitioners that pervade mental healthcare. Does anyone argue that the public and other healthcare professionals have difficulty discerning what we do is different from that of counselors and social workers, for example?

Training and transitioning to Medical Psychology is both a strategy and a way of securing opportunities that once gone will not be recovered. While we would be elated if we were to be wrong and Clinical Psychologists would once more be seen as the premier providers of mental health services, we simply do not see any objective or subjective evidence that this will happen. There is, however, a host of evidence that supports a rebranding and transition to Medical Psychology.

The Doctor of Behavioral Health Program at Arizona State University is a good example to both rebranding and specialized training. The program is not housed in the Psychology department but is housed alongside other healthcare professions. Graduates of the program have little problem achieving success and have multiple offers of employment. They are taking advantage of opportunities that Clinical Psychologists cannot because our brand has been downgraded by years of inaction by the profession.

Being a Doctor of Behavioral Health does not have the baggage that we carry. The title is understandable because it has no competition to obscure what they do. A Clinical Psychologist in today’s terminology can be anything. Moreover, the DBH grad is not saddled with obscure discussions of academic theory. There is no dispute over CBT vs. psychodynamic approaches. The program is oriented towards working and providing services in a medical setting. Physicians and other healthcare professions understand this. There is no confusion or blocks to their utilization.

We are proud to be Psychologists. NAPPP was born as a response to the lack of effort that our so-called organized professional associations have placed on practice and our development. They, not us, have been the contributors to our current situation. However, it is up to us to extricate ourselves from this mess. While there is much blame to go around, we need to take responsibility for our own futures as practitioners and a profession. We recommend looking over the training in Medical Psychology that NAPPP and AMP provide. Becoming board certified as a Medical Psychologist will go a long way in taking advantage of the coming opportunities.

Here’s to a great New Year for all!!
New Year Brings Additions to NAPPP Advisory Board

The New Year will usher in a new advisory panel. We are appreciative of the work our colleagues who volunteer their time to advance doctoral level Psychology practice. It takes talent, commitment, and devotion to make this happen. The NAPPP advisory board is the future of NAPPP. They will be tasked with helping to formulate where to best put our efforts and resources as we move into the New Year. These individuals were selected because they have demonstrated their commitment to making the practice of Psychology and our profession a continued presence in mental health. Their input into our direction and future mission will sculpt who we become, as NAPPP seeks to maintain the cutting edge leadership of practice. In the coming months, we will hear more about these talented individuals as they make their presence known through their work.

New Additions To NAPPP Leadership

Ward Lawson, Ph.D., ABPP

Ward M. Lawson, PhD, ABPP, received his doctorate in Counseling Psychology in 1991 from the University of Kansas. He has been licensed as a Psychologist in Missouri for 20 years. He completed post-doctoral fellowships in neuroPsychology and forensic Psychology and has ABPP status in Family Psychology. He serves on the American Board of Couples and Family Psychology. He is certified by the American Psychological Association’s (APA) College of Professional Psychology in the Treatment of Alcohol and Other Psychoactive Substance Use Disorders. He is on the board of the Academy of Medical Psychology and is working toward board certification as a Medical Psychologist.

Dr. Lawson is the editor of The AMP, the newsletter of the Academy of Medical Psychology, as well as the editor of The Academy of Medical Psychology’s peer-reviewed journal, The Archives of Medical Psychology. He is a member of National Association of Practicing Professional Psychologists (NAPPP), a board member of the Missouri NAPPP chapter (MoNAPPP), and a member of National Academy of Neuropsychology (NAN). From 1996 to 1998, he served on the board of the Missouri Psychological Association as Treasurer and served on the Insurance and Managed Care Committee and the RxP Taskforce.

Keith Petrosky, Ph.D.

Dr. Petrosky is a licensed clinical Psychologist in Pennsylvania. He has vast experience in hospital practice and in behavioral medicine settings. He has developed many hospital based programs geared towards the effective and efficient use of treatment interventions promoting both doctoral level practice and quality mental healthcare. With this vast programming experience, Dr. Petrosky will provide NAPPP and our members with the type of leadership that will guide us to where we need to go as we move into a new era of healthcare delivery.

Cheri Surloff, Ph.D., Psy.D., ABMP

Dr. Surloff is a Board Certified Medical Psychologist as well as a Clinical Neuropsychologist. She was the Director of Neuropsychology at a Level I Trauma Center for over a decade. She has been hospital based for most of her career and is on staff at six hospitals in the Dade and Broward area of Florida. She has begun stroke support groups, brain injury, amputee and spinal cord groups. She has been teaching Neuroscience and Psychopharmacology at Florida Atlantic University for over 18 years. She was a Board Member of the Brain Injury Association of Florida for 6 years and is on the Medical Advisory Board for the Florida Brain Tumor Association.

Dr. Surloff has been active in legislative efforts to promote Psychopharmacology in the state of Florida and is a past president of the Medical Division of the Florida Psychological Association. She has been active throughout the state in promoting attendance and awareness of the Psychopharmacological training. She is currently active in Bariatric Care and Assessment and is part of a medical team for the Florida International University Physicians at Jackson North Medical Center. She has a keen interest in Oncology as well. She wants to encourage the Psychologists of the “now” to intervene in the role of the mind in all disease states.
Sharna Wood, Ph.D.

Dr. Wood has worked in public hospital, clinic and private practice settings for over 10 years. She is on the executive board for a geriatric psychiatric hospital group in east Texas, operates two physical locations and conducts specialized evaluations all over Texas. She has worked closely with several test publishers in data collection for revalidation of test instruments such as the WAIS-IV, WMS-IV and NEPSY2. She was also a finalist for the National Academy of Neuropsychology Outstanding Dissertation Award for her research in Geriatric Neuropsychology. Dr. Wood is an associate editor of The Clinical Practitioner.

“In my opinion, the best doctors are not those supposed to be the brightest or best educated but those who recognize the limitations of medicine and can make a judgment. Expressing a medical opinion means we must accept being wrong occasionally and that opinions might upset others. Opinion is the art and craft of medicine; without it, it would not be medicine at all.”

-Des Spence, general practitioner, Glasgow

Certification Available in Geropsychology

The full implementation of The Affordable Care Act, scheduled for January 1, 2014, will place greater demands upon mental health practitioners and for several reasons. The demand for doctoral level, mental health specialists will see an increase for our services. The operative word is “specialist.” Most physicians have little idea about what distinguishes a counselor or social worker from a psychologist. The public has great difficulty knowing the difference between a psychologist and a psychiatrist. Nonetheless, care providers will have to demonstrate performance in treatment in order to receive bonus payments under the ACA. For this reason, providers who can show a specialty designation will be in a better position to attract referrals because physicians are steeped in a medical culture that recognizes specialization. The ACA also provides greater services to special population such as seniors and substance abuse patients. The care costs of these populations comprise a significant portion of healthcare costs. Providers who have a specialty designation in treating these populations will be in demand and in a far better position to increase practice revenue.

Those providers whose practices rely upon contracts with managed care companies can expect greater competition as these companies will ultimately have to open their panels as more people must become insured. Providers who possess specialty designations in geropsychology will be in a position to ask for and receive a reimbursement bonus above those who do not have a specialty board certification. We have seen this with many other providers who have board certifications such as those in medical psychology. With all of these factors in play in the healthcare system, it behooves providers to obtain specialty board certification. The future is likely to become so much more competitive under the ACA.

The American Board of Behavioral Health Practice will now offer a certification for providers who want to earn specialty board certification in Geropsychology. ABBHP is partnering with Dr. Joseph Casciani and his Cohealth Organization to offer the certification. To view the details of the requirements of the program, visit the ABBHP website at http://abbhp.org/.
Want to know what Medical Psychology is and how we practice? Want to support advocacy for psychological practice and get a book in return? If you purchase this book you can do both. All revenues from the sale of this book goes to our PsychAdvocacy Fund to help us deliver the message that doctoral level psychological services are valued and needed. We cannot do this without your support.

**Book Description**

In 2009, over fifty-two million prescriptions for antipsychotic medications were written, totaling over $14.6 billion in sales. Such is just one small indication of how our current medical system treats its patients with medication as a first-line approach. This is not the answer. There is a growing need for integrated health care systems which include psychological care, particularly those services provided by medical psychologists. Medical psychologists are not physicians, but they do many of the same things that physicians do or should be doing. Medical psychologists are also doing things that clinical psychologists have never done. A medical system which profits from and relies primarily upon medication is not sustainable, especially when these medication-only treatments may be at the least ineffective and, at worst, harmful to patients.

This reader seeks to define medical psychology’s place in this complex and challenging environment.

Book Review:

Medical Psychology Practice and Policy Perspectives

Reviewed by Jeffrey Cole, Ph.D.

Having done substantive stints in a number of government-run or publicly-funded institutions, the presence of the term “Policy” on the cover of any book or document is enough to elicit an abrupt spike in my sympathetic nervous system activity. Norepinephrine and cortisol are dumped summarily into my alerted system as my mind and body tense defensively in preparation for the anticipated onslaught of recursive, self-referent bullets on “how not to upset the carefully established status quo” by doing things that my profession has taught me to do, and to do well, but, which are not always welcome where some other profession or administrative entity or institutional system has its own agenda.

Thus, given this history and prior conditioning, imagine my surprise when I opened the cover of, and began reading Dr. John Caccavale’s edited book “Medical Psychology Practice and Policy Perspectives” and found myself feeling both empathetically engaged and collegially inspired -- my identities and experience as both a Clinical Psychologist and Medical Psychologist, and my accompanying perceptions of my profession’s fate in today’s healthcare climate - validated and attuned. Rather than being admonished for possessing a professional repertoire and methods that - no matter how high caliber and sophisticated -- do not entirely fit with the current over-medicalized and medication-dominated view of mental health, and which are not adequately valued by a “psyche-less” medicine, I instead found myself being invited to open new doors and to consider alternative, and more progressive ways of practicing and approaching the subject matter of my work.

My parasympathetic and sympathetic branches settled into a pleasantly attuned and stimulatingly synchronized reverberation as I encountered page after page, and chapter after chapter of highly relevant, consummately current and forward-thinking material about where our (Psychologists’) profession has been, what it is going through now, and its potential for the future, given awareness and attention to our potential new, and - and dare I say? -- more advanced roles in the emergent healthcare system and the attendant evolving training and competency needs implied by these changes.

The chapters of the book are all written by Medical Psychologists with special training and experience integrating medical and behavioral approaches to healthcare, and all the authors are members of the National Association of Professional Psychology Providers (NAPPP) or the Academy of Medical Psychology (AMP), organizations that are at the forefront of developing and promoting integrative approaches to healthcare. In short, these are the people to be writing such a book as this, authoritative on this advanced and cutting edge subject matter.

In the Forword and Prologue, Dr. Jerry Morris (President of AMP) and Dr. Caccavale (President of NAPPP), respectively, state the unmet needs of patients in the current healthcare system, define the emerging field of Medical Psychology and warn against languishing in Clinical Psychology’s current state of increasing dissipation brought on by problematic training and credentialing factors affecting the profession.

In Chapter One, Dr. Jack Wiggins, eminent Psychologist whose career and contributions to the field have been entwined with Psychology since early in its emergence as a clinical profession, outlines clinical Psychology’s gradual evolution and transformation into Medical Psychology. He describes both the role of psychopharmacology and the emergence of Community Mental Health Centers in shaping this emergent profession. In describing the essential differences between Medical Psychology and Psychiatry, Dr. Wiggins states, “It is possible to distinguish between Medical Psychology and psychiatry with brief definitions and utilizing treatment of stress as our model. Medical Psychology’s goal is to create new behaviors
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and to build new strategies to manage stresses of daily living. Psychiatry’s goal is to reduce mental symptoms due to stress and alleviate these symptoms on a biological basis using medications.” (p. 30). Medical Psychology stands out, then, as a profession uniquely suited to bring healing and illness-prevention to an otherwise symptom, and symptom-amelioration dominated medicine.

Dr. Wiggins’ chapter is followed by chapters by Dr. Cornelius Cuza and Dr. Howard Rubin who develop the themes of the roles, and potential roles of Medical Psychologists in community health centers and on medical teams, respectively. The related themes of the under-preparedness of physicians to deal with behavioral health needs in community settings and the need for medically-informed Psychologists to address behavioral health on medical teams, including surgical teams, are also addressed.

The idea of a Behavioral Care Practitioner (BCP), on an equal par with and providing equally substantive contribution as the more familiar Primary Care Physician (PCP) on treatment teams, is introduced by Dr. Nicholas Cummings, a pioneer in the Doctor of Behavioral Health (DBH) model. This concept has groundbreaking implications in a system where, up to now, outmoded, behaviorally-uninformed medical models have forced psychologists into secondary or subordinate roles - if utilized at all-- in these settings thereby diminishing opportunities for attention to, and intervention in hugely important behavioral and psychological factors in many illnesses, physical as well as psychological.

Dr. Cummings’ chapter segues to a chapter by Dr. David Reinhardt on Functional Medicine and the role of Medical Psychology in enhancing a more holistic, comprehensive medical approach.

From here, the material transitions to chapters addressing the Medical Psychologist in lead roles in healthcare and treatment settings including Dr. Caccavale’s chapter on psychotherapy as first-line treatment; and, then to chapters with contributions by Dr. Caccavale, Dr. Wiggins, Dr. Rubin and Dr. Cummings on Medical Psychologists as prescribers of medication and prescribing psychologists’ pristine safety records prescribing psychotropic medications. The authors address problems with the medical professions’ approach to prescribing including with regards to both efficacy and safety, for which Medical Psychology -- with the advantage of Psychologists’ premier role as researchers in the health professions-- can provide a better model.

Dr. Morris and Dr. Caccavale also highlight the misleading claims about the effectiveness and value of antidepressant medications, agents which have not measured up to their promise especially in comparison with behavioral interventions. Additionally, both doctors address economic concerns in chapters on reimbursement for prescribing psychologists and changes in Medicare rules affecting hospital and healthcare facility Psychology. Dr. Joseph Casciani, widely known and highly regarded for his work in Geropsychology addresses the high potential for treatment of the elderly by including medically-informed psychologists - with enhanced awareness of mind-body continuums in illness and treatment -- in nursing home settings where medical and psychological co-morbidities are omnipresent and where, currently, high risk psychotropic medications are often over used and inappropriately used by psychological-uninformed practitioners.

Dr. Morris articulates the proven inadequacy of simplistic, psychotropic medication-dominated treatment planning, so prevalent in Public Healthcare Facilities, and the accompanying pressing need for trained Medical Psychologists - with a whole new set of competencies and skill set -- in a chapter on this emerging “Age of Integrated Care”. In a final chapter, Dr. Caccavale outlines a model by which future Prescribing Psychologists can apply their expanded skill repertoire, including psychopharmacological acumen in a world of integrated healthcare.

This is a consistently well-written and informative book and an enjoyable read throughout. Each author has a unique style and approach to the subject matter, but the styles and approaches, themselves integrate well. Thus, while each chapter can be taken on its own merit and unique focus, it is also a fairly seamless read,
straight through, with the chapters building on and contributing to one another in a sensible way. I have very little negative to say about the book and the included material. If I were to add anything, it would be, per my own particular interests and specialty area to include a more extensive treatment of what is sometimes referred to as “the psychodynamics of sickness and health,” and that is that area of healthcare that is concerned with the direct interactions between unconscious and psychodynamic processes and mental and physical health outcomes (e.g., psychosomatics; the placebo effect). However, that is for a separate book and does not constitute an “omission” for the purposes and aims of the present book.

The material that this book covers is comprehensive. It more than outlines -- it also begins to flesh out a structure for Medical Psychology as a profession and for its practitioners, with specific observations and detailed recommendations for implementation of the Medical Psychological concept and approach on an increasing level in multiple facets of healthcare. I recommend this book to anyone with an interest in healthcare, its history and its potential future. While Clinical and Medical Psychologists are likely to get the most out of it, it is written with enough clarity and engaging structure and style that it is approachable and applicable to a wider, informed audience. Given its quintessential material, the depth and breadth of coverage of the material and the expertise, acumen and authority of the authors, this will be regarded as a seminal work in the evolution of Medical Psychology. Congratulations to Dr. Caccavale and the authors on this very important and enjoyable work.

How big is the US healthcare lobby?

The size of lobby spending in all industries has grown steadily since the turn of the century, from $1.56bn (£0.95bn; €1.1bn) in 2000 to $3.55bn in 2010. In the past two years it has dipped slightly to $3.31bn in 2012 and though the figures are smaller, the trends are similar in health lobbying in isolation. Last year the total spend on health lobbying was just under $0.5bn.

Federal lobbying in the US is a big business with a long history and a lot of mistrust. The first serious attempts to shine a light into the practice came about 70 years ago under the Federal Regulation of Lobbying Act, passed by Congress in 1946.

The lobbying tends to be done either by Washington based employees of the companies or by professional lobbying firms, often staffed by lawyers, to work on specific different campaigns and contracts. For example, roughly a quarter of Pfizer Inc’s lobbying spend in 2012 was on contracts with a dozen or so lobbying firms, with the contracts varying in value from $80,000 to $400,000.

Although most of the figures for the top lobbying professional organizations are considerably less than those of their commercial counterparts, they still count their outlay in the millions with the Affordable Care Act being by far the biggest subject of lobbying over the past few years.

BMJ 2013; 12 December 2013
The chemical solution to acid reflux, acid suppressors, is harmful if used long term. The manufacturers are aware of this: Prescribing information for Prilosec® by AstraZeneca states, “Prilosec is indicated for short term treatment (4-8 weeks)...The efficacy of Prilosec used for longer than 8 weeks in these patients has not been established.”

Unfortunately physicians and the public are largely unaware of this. We are bombarded with advertising promoting these products, yet never cautioned by our sickcare providers to avoid them. Geropsychologists see acid suppressors routinely being given to the majority of elderly nursing home residents. The elderly are the largest users of these chemicals, estimated at 80% of all sales.

Fortunately alternative approaches to “sour stomach” and acid reflux are highly effective. In years of nursing home work I have yet to see any resident that did not respond favorably to these approaches, or a resident that required continued long term PPI use. Psychologists are key players in developing alternative interventions.

The harm of PPIs
The known harms of acid suppressors are many:
- PPIs interfere with absorption of B12, iron, calcium, magnesium, vitamin C.
- PPIs cause rebound hypersecretion—in one study healthy volunteers were given pantoprazole or placebo for four weeks and then followed for six additional weeks. One week after treatment was stopped, 44% of the pantoprazole recipients reported symptoms of dyspepsia, compared to 9% of the placebo recipients.
- Change in the acid environment in the duodenum likely inhibits absorption of the amino acid glycine, a necessary component of GABA release and a neurotransmitter in its own right, providing a link to anxiety, insomnia, hyperactivity and psychosis (GABA mediates glutamine).
- They increase rate of Clostridium difficile and community-acquired pneumonia infection.

Proton Pump Inhibitor and Histamine 2 Receptor Antagonist Use and Vitamin B12 Deficiency
We evaluated the association between vitamin B12 deficiency and prior use of acid-suppressing medication using a case-control study within the Kaiser Permanente Northern California population. We compared 25,956 patients having incident diagnoses of vitamin B12 deficiency between January 1997 and June 2011 with 184,199 patients without B12 deficiency. Exposures and outcomes were ascertained via electronic pharmacy, laboratory, and diagnostic databases. Risk of vitamin B12 deficiency was estimated using odds ratios (ORs) from conditional logistic regression.

Results: Among patients with incident diagnoses of vitamin B12 deficiency, 3120 (12.0%) were dispensed a 2 or more years’ supply of PPIs, 1087 (4.2%) were dispensed a 2 or more years’ supply of H2RAs (without any PPI use), and 21,749 (83.8%) had not received prescriptions for either PPIs or H2RAs. Among patients without vitamin B12 deficiency, 13,210 (7.2%) were dispensed a 2 or more years’ supply of PPIs, 5897 (3.2%) were dispensed a 2 or more years’ supply of H2RAs (without any PPI use), and 165,092 (89.6%) had not received prescriptions for either PPIs or H2RAs.

Both a 2 or more years’ supply of PPIs and a 2 or more years’ supply of H2RAs were associated with an increased risk for vitamin B12 deficiency. Doses more than 1.5 PPI pills/d were more strongly associated with vitamin B12 deficiency than were doses less than 0.75 pills/d.

Conclusions: Previous and current gastric acid inhibitor use was significantly associated with the presence of vitamin B12 deficiency. These findings should be considered when balancing the risks and benefits of using these medications.

JAMA. 2013;310(22):2435-2442
Long term use increases risk of hip, wrist and spine fractures—a 2006 study of 135,000 people 50 or older found that those taking high doses of PPIs for longer than one year were 2.6 times more likely to break a hip.

By suppressing acid-mediated breakdown of proteins, there is an elevated risk of developing food allergies. These undigested proteins pass into the gastrointestinal tract, potentially leading to sensitization to a range of foods or drugs.

Exposure to acid-suppressive drugs during pregnancy is associated with childhood asthma.

PPIs have been linked with increased skin aging.

PPI’s can cause transmucosal gastric leak. This can happen within days of first taking the drug.

PPI use may be associated with occurrence of myopathies, including the serious reaction rhabdomyolysis.

Evidence suggests chronic PPI use may impair leukocyte function. The elimination half-life of PPIs ranges from 0.5 to 2.0 hr, but the effect of a single dose on acid secretion usually persists up to three days.

**Effects of B12 deficiency**

Many of the adverse effects of PPIs are caused by impairment of B12 absorption. Vitamin B12 is used in every cell of the human body, especially affecting the DNA synthesis and regulation but also fatty acid synthesis and energy production. At levels only slightly lower than normal, a range of symptoms such as fatigue, depression, confusion and poor memory may be experienced. Vitamin B12 deficiency can also cause symptoms of mania and psychosis.

A deficiency of vitamin B12 often causes defective function of the intestine, resulting in indigestion and sometimes constipation or diarrhea. Urine incontinence is commonly seen. Weight loss, shortness of breath and tremors may be seen. A very serious effect is degeneration of certain motor and sensory tracts of the spinal cord; if the degeneration continues for some time, treatment with vitamin B12 may not correct it. Initial numbness and tingling of fingers or toes may, without treatment, progress to instability of gait or paralysis.

B12 is a core component of superoxide dismutase. SOD is one of the body’s primary internal antioxidant defenses, and plays a critical role in reducing the oxidative stress implicated in atherosclerosis and cognitive impairment and vitamin B12: a review.

This review examines the associations between low vitamin B12 levels, neurodegenerative disease, and cognitive impairment. The potential impact of comorbidities and medications associated with vitamin B12 derangements were also investigated. In addition, we reviewed the evidence as to whether vitamin B12 therapy is efficacious for cognitive impairment and dementia.

Results: Vitamin B12 levels in the subclinical low-normal range (<250 pmol/L) are associated with Alzheimer’s disease, vascular dementia, and Parkinson’s disease. Vegetarianism and metformin use contribute to depressed vitamin B12 levels and may independently increase the risk for cognitive impairment. Vitamin B12 deficiency (<150 pmol/L) is associated with cognitive impairment. Vitamin B12 supplements administered orally or parenterally at high dose (1 mg daily) were effective in correcting biochemical deficiency, but improved cognition only in patients with pre-existing vitamin B12 deficiency (serum vitamin B12 levels <150 pmol/L or serum homocysteine levels >19.9 μmol/L).

Conclusion: Low serum vitamin B12 levels are associated with neurodegenerative disease and cognitive impairment. There is a small subset of dementias that are reversible with vitamin B12 therapy and this treatment is inexpensive and safe. Vitamin B12 therapy does not improve cognition in patients without pre-existing deficiency. There is a need for large, well-resourced clinical trials to close the gaps in our current understanding of the nature of the associations of vitamin B12 insufficiency and neurodegenerative disease.

Int Psychogeriatr. 2012 Apr;24(4):541-56

**Effect of proton pump inhibitors on vitamins and iron.**

Vitamin C is actively secreted in human gastric juice. Proton pump inhibitor therapy lowers the concentration of vitamin C in gastric juice and the proportion of the vitamin in its active antioxidant form i.e., ascorbic acid. This has secondary effects on intragastric nitrite chemistry, resulting in a rise in gastric juice nitrite levels. There is also some evidence that proton pump inhibitors may reduce the bioavailability of ingested vitamin C. The effect of proton pump inhibitors on vitamin C and nitrite
Functional Medicine for Psychologists: Acid supressors and B12

Other life-threatening diseases. Studies have shown that SOD can play a critical role in reducing internal inflammation and lessening pain associated with conditions such as arthritis. SOD in the brain is responsible for sequestering neurotoxic metal ions such as iron, mercury, and copper. These SOD-sequestered neurotoxins form the plaques associated with Alzheimer’s.

Our bodies have an amazing and highly effective feedback system that regulates absorption and utilization of nutrients. This feedback system will always respond to the most pressing demands for short term health. B12 is necessary to produce red blood cells. Red blood cell production will always be the most critical use of B12. There is no “gold standard” test for B12 deficiency because as a B12 deficiency occurs, serum values may be maintained while tissue B12 stores become depleted. Therefore, serum B12 values above the cutoff point of deficiency do not necessarily indicate adequate B12 status. Deficiency is hard to detect, often being identified after irreversible neuronal damage has occurred.

**Absorption of B12**

Humans lack the ability to produce B12 and must absorb it from food and supplements. B12 is found in animal tissue only and is bound to proteins. Gastric acid and pepsin release B12 from food particles in the stomach, and the B12 becomes bound to R-proteins (produced by the salivary glands), which prevents vitamin degradation by the acid environment. In the duodenum, proteases digest R-proteins and release B12, which then binds to intrinsic factor, a protein synthesized by gastric parietal cells. B12 must be attached to intrinsic factor for it to be absorbed.

When stomach acid production is reduced (by PPIs and other acid supressors), B12 is significantly impaired by inhibiting intragastric proteolysis and, thus, its release from food required prior to binding to R-proteins.

Because vitamin B12 is found in animal but not vegetable foods, strict vegetarians (vegans) who do not eat dairy products, meats, fish, eggs, or vitamin B12-fortified foods may develop a deficiency if they do not receive supplements of the vitamin.

B12 levels may be affected by a number of drugs, either through impairment of absorption or by increased B12 demand. Common culprits include:

- Acid supressors

<table>
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<th>Chemistry is more marked in Helicobacter pylori-infected subjects. Proton pump inhibitors also reduce the absorption of vitamin B(12) probably by inhibiting intragastric proteolysis and, thus, its release from food required prior to binding to R-proteins and gastric intrinsic factor. Under certain circumstances, the treatment may lower serum vitamin B(12) levels. Proton pump inhibitor therapy reduces the absorption of non-heme iron and this effect has been employed in the management of hemochromatosis. It may also retard clinical response to iron supplementation. Am J Gastroenterol. 2009 Mar;104 Suppl 2:S5-9</th>
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<td><strong>Effects of aging and gastritis on gastric acid and pepsin secretion in humans: a prospective study.</strong> Recent studies suggesting that gastric secretion does not decrease with aging included few elderly individuals and measured only acid secretion. The aims of this study were to measure gastric acid and pepsin output in 206 health Americans (age range, 18-98 years) and to compare secretion rates with gastric histology. Immediately after basal and pentagastrin-stimulated acid and pepsin outputs were measured, oxyntic biopsy samples were obtained. Gastric acid and pepsin output rates were similar in young (age range, 18-34 years) and middle-aged (age range, 35-64 years) groups. Stimulated acid output was reduced approximately 30% in the elderly (age range, 65-98 years). However, after adjustment for histology, Helicobacter pylori infection, and other variables, age had no independent effect on acid output. The decline in acid secretion in the elderly was primarily related to a higher prevalence of chronic atrophic gastritis and a lower prevalence of smoking. Pepsin output was reduced by approximately 40% in the elderly. After adjustment for other variables, age remained a robust predictor of reduced pepsin output. Conclusion: Although advancing age has no independent effect on gastric acid secretion, it is associated with reduced pepsin output independent of atrophic gastritis, H. pylori infection, and smoking. Gastroenterology 1996 Apr;110(4):1043-52.</td>
</tr>
<tr>
<td><strong>Vitamin B12 supplementation in treating major depressive disorder: a randomized controlled trial.</strong> Recent literature has identified links between vitamin</td>
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Metformin (glucophage)  
Alcohol  
Many antibiotics  
Oral contraceptives  
Colchicine (used for gout)  
Colestipol and cholestyramine (cholesterol reducers)  
Nicotine  
Dilantin (phenytoin) and other anticonvulsants  
Zidovudine (AIDS treatment)  
Potassium supplements  
IgE (allergen antibody) overproduction due to allergies  
Vitamin C  
Heavy metal exposure  
Alzheimers drugs (suspected)  
ACEIs (blood pressure)  
Aspirin  
Hematologicals (Epogen, Procrit and others)  
Osteoporosis agents (Fosamax, etc.)  
Weight loss surgery  
Celiac disease  
Crohn’s disease  
IBD, IBS  

Supplemental B12 is vital for those over 70, due to the presence of atrophic gastritis (AG). AG is found in 32% of 70 year olds, and over 40% of those 80+. The physiologic consequences of atrophic gastritis include decreased acid-pepsin digestion in the stomach, decreased secretion of intrinsic factor, bacterial overgrowth of the stomach and proximal small intestine and elevated proximal small pH. Nutrients whose absorption has been shown to be affected by low acid conditions in the stomach include folic acid, vitamin B-12, calcium, iron and beta-carotene.

**B12 Recommendations**

B12 deficiency has been identified in up to 15% of the general population, although this number is affected by poor identification of those that are deficient and by lack of a reliable test. The RDA for an adult that is not subject to higher demands or mal absorption is 2.4 mcg.

B12 deficiency and depression. We compared the clinical response of SSRI-monotherapy with that of B12-augmentation in a sample of depressed patients with low normal B12 levels who responded inadequately to the first trial with the SSRIs. Patients with depression and low normal B12 levels were randomized to a control arm (antidepressant only) or treatment arm (antidepressants and injectable vitamin B12 supplementation). A total of 199 depressed patients were screened. Out of 73 patients with low normal B12 levels 34 (47%) were randomized to the treatment group while 39 (53%) were randomized to the control arm. At three months follow up 100% of the treatment group showed at least a 20% reduction in HAM-D score, while only 69% in the control arm showed at least a 20% reduction in HAM-D score (p<0.001). The findings remained significant after adjusting for baseline HAM-D score (p=0.001).

**Conclusion:** Vitamin B12 supplementation with antidepressants significantly improved depressive symptoms in our cohort  

Open Neurol J. 2013 Nov 15;7:44-8

**Vitamin B12 deficiency in dementia and cognitive impairment: the effects of treatment on neuropsychological function.**

We examined the effects of B12 treatment on neuropsychological function and disease progression in patients presenting with dementia or cognitive impairment. The majority of patients with low serum B12 had normal Hb and MCV values. We found no cases of reversible B12 deficiency dementia. The B12 treatment patients who presented with dementia showed no significant improvement, and no less deterioration, in their neuropsychological function than their matched group. However, a treatment effect was demonstrated among the patients presenting with cognitive impairment. These improved significantly compared to matched patients on the verbal fluency test (p<0.01).

**Conclusion:** All patients with cognitive impairment should be investigated for B12 deficiency. Vitamin B12 treatment may improve frontal lobe and language function in patients with cognitive impairment, but rarely reverses dementia.

According to the National Institutes of Health, vitamin B12 has not been shown to cause any harm. Vitamin B12 can be supplemented by pill, liquid, transdermal patch, nasal spray, or injection and is available singly or in combination with other supplements.

I recommend all people to take B-complex supplements, which contain B12. I recommend additional B12 for all those over 50, for those with any of the conditions or drugs listed above and for those suffering from depression and anxiety. I further recommend a sublingual, intranasal B12 for all those over 70. Cognitively impaired individuals who cannot reliably take these supplements should consider a monthly injection of 1000 mcg of B12, a standard practice in many nursing homes.

**Non-Drug Approaches to Acid Reflux and Heartburn**

“Excess” stomach acid is typically blamed for heartburn and reflux, although this is seldom the case. Acid is produced in response to food odors, taste and sight, as well as the tactile sensations as we chew. Stress can also trigger acid release, the path that typically brings Psychologists into the treatment milieu. The amount and timing of this release can depend on several factors, most of which can be ameliorated through dietary, psychological and behavioral interventions.

The first step in treating heartburn is to eliminate treatable medical conditions, including Helicobacter pylori (a blood or breath test) or other infection, celiac disease (a blood test and biopsy), and fungal overgrowth (common after treatment with antibiotics).

Ibuprofen, aspirin, bisphosphonates (osteoarthritis), calcium channel and beta blockers and nitrates (hypertension), anxiolytics, iron and potassium supplements, many antidepressants, many antibiotics, anticholinergics, narcotics, progesterone, quinidine, and theophylline commonly cause or worsen heartburn. Have your patients work with their physicians to specifically address these issues.

Food allergies often cause problems. Assess for food allergies and hypersensitivities using an elimination diet, blood and saliva testing (IgG testing is moderately accurate for this), and by common sense awareness of offending foods and spices.

Try eliminating all dairy; eliminate high fat and fried food, alcohol, caffeine, gluten grains, citrus, tomato based foods, and spices. Avoid raw foods until symptoms are controlled.

Consider taking digestive enzymes with each meal. Try probiotics to re-inoculate gut bacteria. Try 200 to 400 mg of magnesium twice per day. Take 3-5 grams of glutamine powder twice per day in water to heal tissues. All are available OTC at health food stores and many pharmacies.

Eat smaller meals, more frequently, to reduce pressure on the esophageal sphincter, the valve at the top of the stomach. Avoid sitting or laying down after a meal, the longer the better.

Bile and acid release starts on our exposure to the sight, smell and taste of food, which is why we are tempted to nibble during food preparation. This release prepares the stomach for the meal, so foods can be mixed with the necessary acid and enzymes in the stomach. When we eat in restaurants, have frozen microwave dinners or are kept from sight and smell of foods in a nursing home, we do not have this early acid release triggered. Food arrives at the stomach and settles in quickly. PH is corrected late in the process by acid release that may not rapidly mix with food. When even minor pressure is applied to the midsection this acid can cause problems.

A work-around for this “late” acid injection is to stimulate the appetite 1/2 hour before a meal. I have found resounding success in nursing homes by having staff bake bread or cookies at the nurses’ stations, by brewing peppermint tea in a crockpot at the stations, and even by opening the kitchen and dining room doors to allow odors to reach the residents. Stimulate appetite by sucking on hard candies (especially peppermint), chewing gum, or even having a mint flavored breath mint 15-30 minutes before a meal.

As psychologists, we can help our patients reduce stress through psychotherapy and to use guided imagery and other techniques to calm the acid response.
I have always wondered about the relationship between the psychologist’s ethics and a lawyer’s strategy. I have seen them collide when dealing with children in the courts. One tends to think of an expert as someone hired by a lawyer or appointed by a court to render an opinion and give testimony to the court. I would rather think of them as required to be child advocates, hired, first, to evaluate parties and children, and then to serve the welfare of children, especially where the child needs special protection.

By way of highlighting this need, I like to compare expectations of experts in other types of cases. Civil cases might involve engineers to help assess the safety of a building for example. In medical malpractice cases, where there is an injury or death, the issue is whether there is a breach of the standard of care. A physician may be a necessary expert to help a court understand the issues and liability. In criminal cases, there may be the need for an expert to do drug analysis or explain the use of radar to assist a finder of fact. In each of these cases, the expert is a part of a legal team and gives guidance to a lawyer, who may choose to use his expert’s opinion, if favorable, or not, if adverse. Ultimately, the expert may testify, and a judge or jury then makes a decision.

In direct contrast, child custody cases are unique, especially when the psychologist concludes the safety of a minor may be at risk. State law and professional ethics may require disclosure of confidential information that would ordinarily remain within the control of the lawyer.

About 97% of child custody cases in family court are amicably resolved between the parents. However, within the small percentage of cases which become highly litigated, issues of violence are frequently raised. Therefore, these are the cases where a psychologist’s opinion is requested and specialized knowledge is required.

Questions arise where abuse of a child becomes a concern of the psychologist. While psychologists may be a part of a legal team, to be utilized by the lawyer in putting on his case, a psychologist also has independent ethical obligations. For example, a psychologist is a mandated reporter of abuse. Therefore, whether the psychologist is hired by a party or ordered by a court to conduct an evaluation, the obligation to report abuse or risk thereof to a state agency remains the same. This is true even if the abusive parent hired the psychologist. The APA Practice Guidelines, http://www.apa.org/practice/guidelines/child-custody.aspx, make clear that for psychologists, the child’s welfare is paramount when conducting child custody evaluations.

All reporters of child abuse remain anonymous. The questions, then, are,

1. After making a report, do psychologists have a continuing obligation of any sort to that child, to the law or to their own ethical responsibility?
2. Does the psychologist who makes a mandated report of abuse during or after an evaluation, have any additional obligation to the child, especially where there is ongoing legal action for custody between parents?
3. If so, what type of action is both ethical and permissible at law?
4. Are there ethical or legal parameters for taking action or for inaction?
5. Is a line drawn independently to define what is required or permitted by ethics versus the law?

These are questions I find myself asking regularly. I ask because there is an innate or tacit belief that courts get it right; that judges are trained to understand children and act in their best interests. When these same courts are weighing fairness between parents, how can judges simultaneously protect the safety a child? It is as if they are being asked to prosecute and defend the same person. The child’s safety may actually end up taking a back seat.

What then can psychologists do? When a Psychologist is hired by the court, it may be easier to communicate concerns about one parent being a risk to the welfare of a child directly to the court. However, where the Psychologist is hired by one of the parties...
to the custody dispute, to communicate independently to the court would be impermissible, ethically and legally. Action would be and should be initiated by the lawyer representing the party. This raises the question, does that action, even if taken by a lawyer, fulfill the psychologist’s ethical obligations as a Psychologist? I think there must be a separate obligation.

For example, what happens when a lawyer represents the abusive parent? There are unethical Psychologists who fail to report abuse, even where both their ethics and the law require them to do so, since all Psychologists have the identical ethics and identical mandated reporting requirements regardless of who hires them. So as an ethical Psychologist, how can you behave ethically even when hired by an abusive parent? First of all, are you violating any obligations if you take legal action to protect a child, even though the attorney has no obligation to bring his client’s abusive actions to the court’s attention? You must make a mandated and anonymous report. What can you do if the Child Protective Service Agency, the screening agency for child abuse, takes no action or if that action/inaction screener is inept for some reason? The dilemma is there. The answer is more difficult.

To provide a link between ethics and the law I believe that the psychologist should have everyone sign a contract before commencing an evaluation. Psychologists must maintain ethical standards during the evaluation, even without this contract, but signing a contract would make the ethics and standards clear especially in cases where the person who hired you has been abusing a child.

The contract could be between the psychologist and the parties hiring the evaluator. The contract could detail the psychologist’s ethical duty to place the child’s best interests above either of the parties. It could also specify that confidentiality may be breached in order to report to CPS, if it is believed, based on evidence discovered in the process of evaluating the child, that there has been abuse or a risk of abuse. The psychologist should then also advise each party of the duty to report abuse in the general information given at the first evaluative session. The contract could also specify other conditions the psychologist requires. The contract would then be a memorandum of understanding between the parties regarding the psychologist’s ethical duties and legal mandate to report, without which the evaluator would not engage in this work.

This is also true when a psychologist is appointed by the court to provide therapy for a child. The ethics of the psychologist must be adhered to, even at risk of losing the appointment by the court. Courts often do not know the ethical guidelines for psychologists and do not understand the distinctions between these and law. The psychologist has a duty to clarify this for the court and only to abide by their code of ethics insofar as to even remove themselves from a case rather than to violate ethics.

The contract should permit the psychologist to go beyond what is required by ethical guidelines if, in his opinion, it is required to seek to secure a child’s welfare. Doing so would follow the ethical requirement to keep a child’s welfare at a higher priority than the needs of the other parties, but also would permit him to take whatever action he thinks is appropriate based upon the information he gathers during the evaluation. If there is such a contract, there would be no negative repercussions, even if he were hired by the abusive parent. Further, he would not be violating any ethics if he took additional protective action where a child is at risk of harm by a parent and a lawyer decides not to call him as a witness.

The contract, if signed, alleviates other dilemmas. For example, where the appointment for an evaluation comes from a court and the court has taken no protective action, there may be other legally permissible actions available to the psychologist. In some jurisdictions a psychologist may ask a prosecutor to conduct an independent investigation.

Some states permit anyone with an interest in a child to initiate a child protection matter. In New Jersey, for example, a psychologist could become an ‘interested party’ and as such actually request the child protection agency to file a child protection case, separate from a custody matter, even where the agency has not seen it sufficient to file one on its own, after a report of abuse. Indeed, the language of the statute in NJ would likely permit the psychologist himself to become a plaintiff in such a matter. There may be other states with mechanisms for similar action. Such action could not now be taken in most circumstances because of the limited parameters placed on the psychologist when entering a case. This may also be cost-prohibitive for the plaintiff psychologist if a state agency does not prosecute the claims.
Additional ethical issues are raised where the issue of abuse has been reported and investigated by the agency and even tried by a court to conclusion and a court has found there was no abuse. In most civil or criminal cases, where a matter has been concluded through trial, the law presumes the factual issue(s) are resolved for all times. This is referred to as Res Judicata. Res Judicata would ordinarily settle the defining issues between parties. Moreover, in these civil cases, not involving child safety, the court has no special continuing obligations to the litigants.

In a child custody or child protection matter, there is an open issue as long as there are minor children. When determining child safety, the court sits in a parens patriae role as the child’s ultimate parent/protector. Accordingly, child abuse presents a distinct and separate risk, in that a “finding” may not resolve the issues of child safety for all time. The abuse itself may continue or injuries from past abuse may be recurring despite a case being resolved in the court.

The psychologist needs to be following his own ethical guidelines, which may not neatly coincide with what a court has already understood. When a psychologist evaluates a child or parent and finds abuse, despite what a court has found, he must be an advocate rather than a neutral observer. The first obligation is to present findings to the court. If the psychologist has clearly specified his ethical duty to place the child’s welfare above the interests of any other parties, the attorneys and their clients will know in advance not to expect otherwise. The difficulty arises when the opposing attorney or the court takes action to disallow the finding of abuse.

I have seen psychologists elect to take proactive roles and lawyers look askance at this. However, if the psychologist believes a child is at risk even after a mandated report, it is important for the psychologist to understand that a state child protection agency is essentially a screening device. If the investigator at the agency does not feel that a particular report rises to the level of abuse, the investigation may end with a screening for no further investigation. Some states permit the initial screening to rule out any investigation beyond the report. If there was a prior investigation of abuse, the new investigation may get short shrift, and in some states, they actually may turn their eyes to the other parent, about whom no concerns of abuse have ever been raised.

What then may a psychologist do? What then should a psychologist do? First and foremost, the psychologist should submit her findings of past abuse or risk of abuse to the court. Each state is unique and it is the obligation of the psychologist who works within the framework of forensics to know what legal action may be available to him. The problem is that many attorneys and courts put fairness to the parties ahead of the welfare of the child, and some psychologists behave unethically in performing child custody evaluations. Noteworthy, in all circumstances, is the risk to a career, when one steps outside the bounds of what typically goes on in the courts, even if the behavior and action is both legal and ethical. If you take independent action you may never get appointed by a court again or asked by a lawyer to do another evaluation in the future. If your practice depends primarily on family court evaluations, your livelihood may be in jeopardy. On the other hand, if you don’t take action, a child may continue to be injured or fail to get the protection he needs.

I believe that expectations of what is usual in custody proceedings can change over time if psychologists take independent action for ethical reasons where child protection is an issue. I believe psychologists must think carefully about the collision of ethics between unscrupulous attorneys who hire them and their obligation to protect a child. The ethical responsibility to give the child’s welfare highest priority can be clarified in writing and agreed to by all parties in advance of undertaking an assignment for an evaluation.

Once an evaluation is done and child abuse or risk of abuse is determined, a psychologist has statutory rules and ethical guidelines that require proactive behavior. What are some options? They can alert a pediatrician or call a prosecutor. In a worst case scenario of the psychologist hired by an abusive parent, the psychologist at minimum makes a mandated report. Thereafter, he may elect not to write a written report for the lawyer. If subpoenaed by the other attorney he would have a duty to acknowledge opinions regarding abuse and not to attempt to protect his financial interest or the abusive parent.

If the Psychologist is hired by a protective parent and has made a mandated report, the psychologist then has additional obligations to pursue safety for the child, the basis of which is the same basis upon which mandated reports have been required by the state law in every state. That is, it is anticipated that based upon training
and experience and the special circumstances, he will during the course of his evaluation be able to elicit and interpret information in ways that would otherwise be confidential and may never otherwise be reported. His unique circumstance is that he may gather together much information from his own contacts, collaterals, possibly mandated interviews with the parents and other sources and prior medical records as well as traditionally confidential communications. When a child’s welfare is at stake, it is not ethical simply to be an arm of a legal team. Whether hired by good lawyers or bad, the psychologist’s obligation is to do a competent and ethical evaluation. If the psychologist determines the hiring attorney is unethical, she can remove herself from the case and not remain beholden to either the lawyer or to the individual who paid for the services.

All psychologists engaged in forensic work have an independent obligation to find out the laws of the state, permissible behaviors within state boundaries, and especially, adhere to the ethical guidelines for protecting the child’s welfare.
Suicide ranks as the 10th leading cause of death in the United States. Globally, an estimated 700,000 people take their own lives annually. In certain populations, such as adolescents and young adults, suicide constitutes 1 of the top 3 causes of death.

Patients who think about death or self-harm “nearly every day” as evidenced by their response to a particular question on the Patient Health Questionnaire (PHQ-9) are at greater risk for making a suicide attempt compared with those who do not have these types of thoughts.

In a study of 84,418 individuals with depressive symptoms who completed the PPHQ-9 at every outpatient visit for depression over a 4-year period, researchers found that patients who reported in response to Item 9 (“Over the last 2 weeks, how often have you been bothered by thoughts that you would be better off dead, or of hurting yourself in some way?”) that they thought about death or self-harm “nearly every day” accounted for 53% of suicide attempts during the study period and 54% of the suicide deaths. A 91% increase in risk was observed with each one-step increase in the reported frequency of thoughts of death or self-harm.

This article continues, with generally well written sections on Suicide-related activities and characteristics, tips on Assessment of suicide risk, Signs and Risk factors.

Intervention

Intervention for a suicidal patient should consist of multiple steps, as follows:

· The individual must not be left alone
· Anything that the patient may use to hurt or kill himself or herself must be removed
· The suicidal patient should be treated initially in a secure, safe, and highly supervised place; inpatient care at a hospital offers one of the best settings

After the initial intervention, which usually includes hospitalization, it is critical that there be in place an ongoing management treatment plan.

Pharmacologic therapy

Treatment of a patient’s underlying psychiatric illness consistently appears to be the most effective use of pharmacologic therapy in suicidal persons.

The full article is available on Medscape.

Ed: This is generally well written, useful article, although the authors did not have much to say about effective treatments. The PHQ-9 managed to spot just over half of the patients that went on to complete suicide attempts, slightly more than a coin toss. Since 8.1% of those started on “anti” depressants become suicidal, and 0-4% of those given these chemicals get better long term (compared to placebo), the authors were in quite a difficult position. Rather than recommending referral to a Psychologist for the most proven science, they settled with “Treatment of a patient’s underlying psychiatric illness consistently appears to be the most effective use of pharmacologic therapy in suicidal persons.” What does that even mean?

Primary physicians are being strongly promoted as the natural gatekeepers and first responders in healthcare by the AMA and others. I admire the allopathic professionals that are in the practice of physical disease care. They are trained and adept at sickcare, but have no special training in health care. This role possibly could be filled by them if they were given at least two years of additional mental health education, plus a couple more each in nutrition, exercise physiology, alternative healing systems, counseling, and pharmacology.

Physicians would, of course, need to be paid to see each of their patients for the same hour (45 minutes?) as other health specialties, rather than only being given seven minutes to complete all of their new roles. Do physicians “in the trenches” actually want this role? Is there a miscommunication between medical academia (the AMA?) and practicing physicians, just as there is a disconnect between practicing Psychologists and our academia?
IDec. 17, 2013 — Prescribing an apple a day to all adults aged 50 and over would prevent or delay around 8,500 vascular deaths such as heart attacks and strokes every year in the UK -- similar to giving statins to everyone over 50 years who is not already taking them -- according to a study in the Christmas edition of The BMJ.

The researchers conclude that the 150 year old public health message: “An apple a day keeps the doctor away” is able to match more widespread use of modern medicine, and is likely to have fewer side effects.

In the United Kingdom, lifestyle changes are the recommended first step to prevent heart disease. Calls are being made by drug marketers for greater use of statins at a population level, however, particularly for people aged 50 years and over.

Using mathematical models a team of researchers at the University of Oxford set out to test how a 150 year old proverb might compare with the more widespread use of statins in the UK population. They analyzed the effect on the most common causes of vascular mortality of prescribing either a statin a day to those not already taking one or an apple a day to everyone aged over 50 years in the UK.

The researchers assumed a 70% compliance rate and that overall calorie intake remained constant.

They estimate that 5.2 million people are currently eligible for statin treatment in the UK and that 17.6 million people who are not currently taking statins would be offered them if they became recommended as a primary prevention measure for everyone over 50.

They calculate that offering a daily statin to 17.6 million more adults would reduce the annual number of vascular deaths by 9,400, while offering a daily apple to 70% of the total UK population aged over 50 years (22 million people) would avert 8,500 vascular deaths.

However, side-effects from statins mean that prescribing statins to everyone over the age of 50 is predicted to lead to over a thousand extra cases of muscle disease (myopathy) and over ten thousand extra diagnoses of diabetes.

“This research adds weight to calls for the increased use of drugs for primary prevention of cardiovascular disease, as well as for persevering with policies aimed at improving the nutritional quality of UK diets,” they conclude.

While no one currently prescribed statins should replace them for apples, we could all benefit from simply eating more fruit.

Ed: It may be important (career wise) for editors to support their publication’s sponsors, however this glaring “product placement” can’t go unanswered. Researchers estimated 17.6 million more statin prescriptions would reduce deaths by 9400 (0.0534%). They state these statin recipients would experience 1000 more cases of muscle disease and 10,000 more cases of diabetes. In 2007, diabetes was listed as the underlying cause on 71,382 death certificates and was listed as a contributing factor on an additional 160,022 death certificates. This means that diabetes contributed to a total of 231,404 deaths. (American Diabetes Association) Substantially more people would be worse off than if they had not been given the statins.

In contrast, 22 x 70% (the compliance rate they stuck in to tilt the numbers), or 15.5 million apple eaters would reduce deaths by 8500, a rate of 0.0548%, a higher rate than adding statins, with no increase in muscle disease or diabetes.

Even if one does not include the many other severe adverse effects to be expected from the statins, and does not calculate in the cost of the statins vs. apple, or the cost of the physician visit and pharmacy time the costs of the statins outweighs the benefits, and the benefits of apples outweighs the costs.

“This research adds weight to calls for the increased use of drugs for primary prevention of cardiovascular disease.” Quite an interesting conclusion!
What others are saying--From the NYTimes

The Selling of Attention Deficit Disorder

The following are selected excerpts from an article of the same title in the New York Times, published December 15, 2013. To read the entire article go to http://www.nytimes.com/2013/12/15/health/the-selling-of-attention-deficit-disorder.html?ref=health&_r=0

“The rise of ADHD diagnoses and prescriptions for stimulants over the years coincided with a remarkably successful two-decade campaign by pharmaceutical companies to publicize the syndrome and promote the pills to doctors, educators and parents. With the children’s market booming, the industry is now employing similar marketing techniques as it focuses on adult ADHD, which could become even more profitable.

The Food and Drug Administration has cited every major ADHD drug — stimulants like Adderall, Concerta, Focalin and Vyvanse, and nonstimulants like Intuniv and Strattera — for false and misleading advertising since 2000, some multiple times.

Sources of information that would seem neutral also delivered messages from the pharmaceutical industry. Doctors paid by drug companies have published research and delivered presentations that encourage physicians to make diagnoses more often that discredit growing concerns about overdiagnosis.

Many doctors have portrayed the medications as benign — “safer than aspirin,” some say — even though they can have significant side effects and are regulated in the same class as morphine and oxycodone because of their potential for abuse and addiction.

Profits for the ADHD drug industry have soared. Sales of stimulant medication in 2012 were nearly $9 billion, more than five times the $1.7 billion a decade before, according to the data company IMS Health.

Like most psychiatric conditions, ADHD has no definitive test, and most experts in the field agree that its symptoms are open to interpretation by patients, parents and doctors. The American Psychiatric Association, which receives significant financing from drug companies, has gradually loosened the official criteria for the disorder to include common childhood behavior like “makes careless mistakes” or “often has difficulty waiting his or her turn.”

Drug company advertising also meant good business for medical journals – the same journals that published papers supporting the use of the drugs. The most prominent publication in the field, The Journal of the American Academy of Child & Adolescent Psychiatry, went from no ads for ADHD medications from 1990 to 1993 to about 100 pages per year a decade later. Almost every full-page color ad was for an ADHD drug.

Shire agreed last February to pay $57.5 million in fines to resolve allegations of improper sales and advertising of several drugs, including Vyvanse, Adderall XR and Daytrana, a patch that delivers stimulant medication through the skin.

“The fastest-growing segment of the market now is the new adults who were never diagnosed,” Angus Russell told Bloomberg TV in 2011 when he was Shire’s chief executive. Nearly 16 million prescriptions for ADHD medications were written for people ages 20 to 39 in 2012, close to triple the 5.6 million just five years before, according to IMS Health. No data show how many patients those prescriptions represent, but some experts have estimated two million.

Insurance plans, increasingly reluctant to pay for specialists like psychiatrists, are leaving many ADHD evaluations to primary-care physicians with little to no training in the disorder. If those doctors choose to learn about the diagnostic process, they can turn to web-based continuing-education courses, programs often subsidized by drug companies.
Reducing overdiagnosis and disease mongering in ADHD in Lombardy

In practice, clinicians’ objectivity plays a role in mental health diagnosis and in the wide variation in prescription rates by country, region, and even in the same city. As Thomas and colleagues point out, practice guidelines on attention-deficit/hyperactivity disorder (ADHD) recommend performing a medical, psychosocial, and developmental evaluation to define severity, but leave it up to individual clinicians to rate impairment. Unfortunately, classifications (such as mild, moderate, and severe) are academic rather than useful approaches in practice.

In June 2011, an ADHD registry was set up in Lombardy, and each of the 18 reference centres accredited by the regional health authorities must guarantee a strict diagnostic assessment of the disorder before treatment, as well as systematic monitoring during treatment. A working group defined an evidence based pathway consisting of six mandatory steps. These include a complete psychopathology overview using the schedule for affective disorders and schizophrenia for school age children (K-SADS), as well as quantification of symptoms and global functioning severity using the clinical global impressions scale for severity (CGI-S) and children’s global assessment scale (C-GAS), respectively. It was agreed, approved, and shared by all centres. Training sessions and discussion meetings were organised for the reference centres’ clinicians, and educational events were also provided for community paediatricians, families, and other health professionals.

In this context, the prevalence rate of ADHD was stable at around 0.5% in 6-17 year olds, and from 2011 to 2012 drug use decreased—from 24% to 16% of patients. Thus, “overdiagnosis and disease mongering” can be limited if adequate resources are available, appropriate training is undertaken, and patients’ interests in care guide decisions.

BMJ (Published 16 December 2013)

Ed: Especially noteworthy: With tighter controls the prevalence rate of ADHD was stable at around 0.5% in 6-17 year olds in northern Italy. Contrast this with the CDC reports: Prevalence of ADHD diagnosis varied substantially by state, from a low of 5.6% in Nevada to a high of 18.7% in Kentucky, with an average of 11% of children between 4 and 17 years old, 22 times the Italian ADHD rate!

What Does Risperidone Add to Parent Training and Stimulant for Severe Aggression in Child Attention-Deficit/Hyperactivity Disorder?

One hundred sixty-eight children 6 to 12 years old (mean age 8.89 ± 2.01 years) with severe physical aggression were randomized to a 9-week trial of PT, stimulant (STIM), and placebo (Basic treatment; n = 84) or PT, STIM, and risperidone (Augmented treatment; n = 84). All had diagnoses of attention-deficit/hyperactivity disorder and oppositional-defiant disorder (n = 124) or conduct disorder (n = 44). Children received psycho-stimulant (usually Osmotic Release Oral System methylphenidate) for 3 weeks, titrated for optimal effect, while parents received PT. If there was room for improvement at the end of week 3, placebo or risperidone was added. Assessments included parent ratings on the Nisonger Child Behavior Rating Form (Disruptive-Total subscale was the primary outcome) and Antisocial Behavior Scale; blinded clinicians rated change on the Clinical Global Impressions scale.

Compared with Basic treatment (PT + STIM [44.8 ± 14.6 mg/day] + placebo [1.88 mg/day ± 0.72]), Augmented treatment (PT + STIM [46.1 ± 16.8 mg/day] + risperidone [1.65 mg/day ± 0.75]) showed statistically significant improvement on the Nisonger Child Behavior Rating Form Disruptive-Total subscale (treatment-by-time interaction, p = .0016), the Nisonger Child Behavior Rating Form Social Competence subscale (p = .0049), and Antisocial Behavior Scale Reactive Aggression subscale (p = .01). Clinical Global Impressions scores were substantially improved for the 2 groups but did not discriminate between treatments (Clinical Global Impressions—Improvement score 2, 70% for Basic treatment versus 79% for Augmented treatment). Prolactin elevations and gastrointestinal upset occurred more with Augmented treatment; other adverse events differed modestly from Basic treatment; weight gain in the Augmented treatment group was minor.

Conclusions: Risperidone provided moderate but variable improvement in aggressive and other seriously disruptive child behaviors when added to PT and optimized stimulant treatment.


Ed: The researchers found that there was no difference between groups in the Clinical Global Impressions scale. There was a reduction in aggression and increased sleep (which they termed “better,” but it is unclear for
whom it was better for, p=.02.) Considering that all of these kids were on speed (methylphenidate), these results were predictable when adding a major tranquilizer.

Researchers did find that there were many adverse effects, which they chose to call “minor,” an interesting decision when impacting a child’s life. Chemically treated, they had statistically significant elevated triglycerides, prolactin, fasting glucose and fasting insulin.

How sad. This study was funded by a National Institutes of Health General Clinical Research Center grant, but seems designed to benefit a specific chemical company. Odd use of taxpayer money with so much more meaningful research to be done.

Effect of Vitamin E and Memantine on Functional Decline in Alzheimer Disease The TEAM-AD VA Cooperative Randomized Trial

Although vitamin E and memantine have been shown to have beneficial effects in moderately severe Alzheimer disease (AD), evidence is limited in mild to moderate AD. To determine if vitamin E (alpha tocopherol), memantine, or both slow progression of mild to moderate AD in patients taking an acetylcholinesterase inhibitor, the researchers used a double-blind, placebo-controlled, parallel-group, randomized clinical trial involving 613 patients with mild to moderate AD initiated in August 2007 and concluded in September 2012 at 14 Veterans Affairs medical centers. Participants received either 2000 IU/d of alpha tocopherol (n = 152), 20 mg/d of memantine (n = 155), the combination (n = 154), or placebo (n = 152).

Results: Data from 561 participants were analyzed (alpha tocopherol = 140, memantine = 142, combination = 139, placebo = 140), with 52 excluded because of a lack of any follow-up data. Over the mean (SD) follow-up of 2.27 (1.22) years, ADCS-ADL Inventory scores declined by 3.15 units (95% CI, 0.92 to 5.39; adjusted P = .03) less in the alpha tocopherol group compared with the placebo group. In the memantine group, these scores declined 1.98 units less (95% CI, −0.24 to 4.20; adjusted P = .40) than the placebo group’s decline. This change in the alpha tocopherol group translates into a delay in clinical progression of 19% per year compared with placebo or a delay of approximately 6.2 months over the follow-up period. Caregiver time increased least in the alpha tocopherol group. All-cause mortality and safety analyses showed a difference only on the serious adverse event of “infections or infestations,” with greater frequencies in the memantine (31 events in 23 participants) and combination groups (44 events in 31 participants) compared with placebo (13 events in 11 participants).

Conclusions: Among patients with mild to moderate AD, 2000 IU/d of alpha tocopherol compared with placebo resulted in slower functional decline. There were no significant differences in the groups receiving memantine alone or memantine plus alpha tocopherol. These findings suggest benefit of alpha tocopherol in mild to moderate AD by slowing functional decline and decreasing caregiver burden.

JAMA. 2014;311(1):33-44

Ed: An interesting abstract! Thy did not state the absolute declines, but did find that the vitamin E only group declined by 3.15 points LESS than placebo with a p=.03. The mementine group did not have any statistically significant benefit (p=.4). They did not report the combined treatment group. Caregiver time increased the LEAST in the Vitamin E group. Infections and death occurred in 17% of those that received mementine versus 9% in the placebo group. Unfortunately they did not include the data on the vitamin E only group.

-Mementine, marketed as Namenda® for reducing cognitive decline, not only was ineffective but also in the published research significantly increases Stevens-Johnson syndrome, dizziness, headache, confusion, constipation, diarrhea, cough, anxiety, somnolence, pain, back pain, depression, weight gain, vomiting, hallucinations, dyspnea, fatigue, urinary incontinence, abdominal pain, and aggression. Ask your doctor’s drug rep if Namenda is right for you!

Antidepressants for bipolar disorder A meta-analysis of randomized, double-blind, controlled trials

Among 5 001 treatment studies published, 14 double-blind randomized control ed trials involving 1 244 patients were included in the meta-analysis. Eleven short-term studies and three maintenance studies were included. Studies suggested that patients treated with antidepressants were not significantly more likely to achieve higher response and remission rates in the short-term or long-term treatment than patients treat-
Science Notes - Drugs

ed with placebo and other medications. Antidepressants were not associated with an increased risk of discontinuation, relapse or suicidality. When one antidepressant was compared with another, no significant difference in efficacy and tolerability was found.

Conclusion: Existing evidence of efficacy does not support the short-term or long-term application of antidepressant therapy in patients with bipolar disorder, although the tolerability and safety of antidepressants have been generally acknowledged. There is a need for large-sample, double-blind, randomized controlled trials to elucidate the role of antidepressants in patients with different subcategories of bipolar disorder.


Preventing depressive relapse and recurrence in higher-risk cognitive therapy responders: a randomized trial of continuation phase cognitive therapy, fluoxetine, or matched pill placebo.

To test the efficacy of continuation phase CT (C-CT) and fluoxetine for relapse prevention in a pill placebo (PBO)-controlled randomized trial and compare the durability of prophylaxis after discontinuation of treatments. A sequential, 3-stage design with an acute phase (all patients received 12 weeks of CT); 8-month experimental phase (responders at higher risk were randomized to C-CT, fluoxetine, or PBO); and 24 months of longitudinal, post treatment follow-up. A total of 523 adults with recurrent major depressive disorder began acute phase CT, of which 241 higher-risk responders were randomized and 181 subsequently entered the follow-up.

Cognitive therapy responders at higher risk for relapse were randomized to receive 8 months of C-CT (n=86), fluoxetine (n=86), or PBO (n=69). Survival analyses of relapse/recurrence rates, as determined by blinded evaluators using DSM-IV criteria and the Longitudinal Interval Follow-up Evaluation.

Results: As predicted, the C-CT or fluoxetine groups were significantly less likely to relapse than the PBO group across 8 months. Relapse/recurrence rates for C-CT and fluoxetine were nearly identical during the 8 months of treatment, although C-CT patients were more likely to accept randomization, stayed in treatment longer, and attended more sessions than those in the fluoxetine and PBO groups. Contrary to prediction, relapse/recurrence rates following the discontinuation of C-CT and fluoxetine did not differ.

Conclusions: Relapse risk was reduced by both C-CT and fluoxetine in an enriched randomization sampling only CT responders. The preventive effects of C-CT were not significantly more durable than those of fluoxetine after treatment was stopped, suggesting that some higher-risk patients may require alternate longer-term interventions.

JAMA Psychiatry. 2013 Nov 1;70(11):1152-60.

Ed: Although Medscape reported this study as “Depression Relapse Prevention: Cognitive Therapy as Effective as Fluoxetine” this is not true:

1. The abstract states, “C-CT patients were more likely to accept randomization,
2. stayed in treatment longer, and
3. attended more sessions than those in the fluoxetine and PBO groups.”
4. Unless the researchers figured out how to have the drug group diagnosed, and not be seen periodically for assessment of depression and adverse symptoms by a lab coated, stethoscope wielding doctor who asked them how they felt, the drug group also received at least some psychotherapy!
5. Equal depression remittance is one end point, but that does not take into account drug interactions and health problems caused by the chemical.
6. Equal depression remittance is one end point, but that does not take into account the occurrence of the Serious Reactions of suicidality, depression exacerbation, mania, serotonin syndrome, neuroleptic malignant syndrome, extrapyramidal sx, hyponatremia, SIADH, seizures, hypoglycemia, anaphylactoid rxn, serum sickness, vasculitis, rash, severe, erythema multiforme, pulmonary fibrosis, QT prolongation, torsades de pointes, abnormal bleeding/altered platelet fxn, priapism, glaucoma, acute angle-closure, hypotension, withdrawal sx if abrupt D/C, growth suppression (peds pts), neonatal persistent pulmonary HTN (>20 wk gestation), neonatal serotonin syndrome (3rd trimester use), neonatal withdrawal sx (3rd trimester use), or the COMMON Reactions of nausea, headache, insomnia, nervousness, anxiety, asthenia, diarrhea, anorexia, dizziness, xerostomia, tremor, dyspepsia, diaphoresis, ejaculatory dysfxn, constipation, flu syndrome, libido decr., rash, visual disturbance or urinary disorder.


**Science Notes - Drugs**

### Bad medicine: restless legs syndrome

All roads lead to neurology, today’s repository for the medically unexplained. Consider the rise of partial epilepsy, tremor, sleep disorders, atypical migraine, complex regional pain syndromes, and paraesthesia, for example. These conditions have limited pathological basis, few objective tests, and are based on symptoms that patients report themselves. The truth is that what we really know about the higher functioning of the brain can be written on the back of a large postage stamp.

Restless legs syndrome (RLS) is deemed a common and serious neurological syndrome that affects 10% of the population, with 2-3% considerably affected, for which doctors are berated for underdiagnosis and undertreatment. The syndrome disturbs sleep and is characterised by restless movement and odd sensations in the legs. It is considered both a movement disorder and a sleep disorder, and various models of causation have been posited. But these symptoms are nebulous and unexplained biologically. In 20 years I have never had a patient present with these as primary symptoms in a consultation. So what I am being told does not reflect what I see.

The story of RLS is also a big pharma classic, with its fingerprints all over the research and even involvement in defining diagnostic criteria: “pharmaceutical companies attended the workshop and many of them made very helpful contributions.” This cozy group of elite international experts is steeped in direct payments from pharmaceutical companies and hence conflicts of interest.

RLS research uses a classic trick: take soft, subjective symptoms that patients report themselves and then pseudoscientifically convert them to an illegitimate numerical rating. This can give statistically significant outcomes but with almost no discernible benefit for symptoms, sleep, and quality of life. There is also a massive unexplainable 40% placebo response in RLS. Indeed, rationally, placebos should be the treatment of choice. In addition the epidemiology describes a twofold difference among countries and between sexes.

The biological basis of RLS is implausible, it is not one condition, and the benefit of treatment is marginal. Still, that hasn’t stopped the drug dealing, involving the usual suspects such as gabapentin derivatives (recently approved by the US Food and Drug Administration), strong opioids, and benzodiazepines. These psychoactive drugs are difficult to compare with placebo and are associated with dependence and rebound insomnia. Of course the big money is with RLS labelled as a chronic disease so that long term treatments can be peddled, despite a derelict research base and short duration of studies. RLS is medically unexplained yet the diagnosis is uncritically accepted. We risk overdiagnosis, overtreatment, and iatrogenic harm—classic bad medicine.

**BMJ (Published 19 December 2013)**

### Suicidality test being brought to market

Researchers at the Max Planck Institute of Psychiatry discovered when suicidality occurred it happened within two weeks of beginning treatment, or increasing dosage, for 59% of patients. **Altogether, 8.1% of patients studied suffered from this adverse side effect of antidepressant medications.** Since 2005, in the United States, Canada and some European countries, antidepressants have carried a warning alerting the doctor and the patient to the serious risk of medication-induced suicidality. Up until now, however, doctors have had no indications as to which patients may be at risk.

Scientists have now discovered 79 genetic biomarkers that had a 91% probability of correctly classifying patients at risk of antidepressant-induced suicide. [U.S. company Sundance Diagnostics](https://www.sundance.com/) has licensed genetic markers that predict suicide risk when antidepressant drugs are prescribed. The new test should help doctors to decrease the risk of suicidality in patients treated with antidepressants who show certain gene markers.

**Max Planck Institute of Psychiatry, München December 12, 2013**

**Ed:** In Europe it apparently is common knowledge that 8.1% of those that take antidepressants become suicidal. This seems to exceed the number of people who have a reduction in depression (0-4%, compared to placebo, in most studies). To think MDs call Psychology a soft science! Still, giving this test will provide allopaths with at least one more person telling them to stop the madness, even if it is a lab tech.

### Inappropriateness of Medication Prescriptions to Elderly Patients in the Primary Care Setting: A Systematic Review.

Inappropriate medication prescription is a common cause of preventable adverse drug events among elderly persons in the primary care setting. The aim of this systematic review is to quantify the extent of inappropriate
Science Notes - Drugs

prescription to elderly persons in the primary care setting.

We systematically searched Ovid-Medline and Ovid-EMBASE from 1950 and 1980 respectively to March 2012. Two independent reviewers screened and selected primary studies published in English that measured (in) appropriate medication prescription among elderly persons (>65 years) in the primary care setting. We extracted data sources, instruments for assessing medication prescription appropriateness, and the rate of inappropriate medication prescriptions. We grouped the reported individual medications according to the Anatomical Therapeutic and Chemical (ATC) classification and compared the median rate of inappropriate medication prescription and its range within each therapeutic class.

We included 19 studies, 14 of which used the Beers criteria as the instrument for assessing appropriateness of prescriptions. The median rate of inappropriate medication prescriptions (IMP) was 20.5%. Medications with largest median rate of inappropriate medication prescriptions were propoxyphene 4.52(0.10–23.30)%, doxazosin 3.96 (0.32 15.70)%, diphenhydramine 3.30(0.02–4.40)% and amitriptiline 3.20 (0.05–20.5)% in a decreasing order of IMP rate. Available studies described unequal sets of medications and different measurement tools to estimate the overall prevalence of inappropriate prescription.

Conclusions: Approximately one in five prescriptions to elderly persons in primary care is inappropriate despite the attention that has been directed to quality of prescription. Diphenhydramine and amitriptiline are the most common inappropriately prescribed medications with high risk adverse events while propoxyphene and doxazosin are the most commonly prescribed medications with low risk adverse events. These medications are good candidates for being targeted for improvement e.g. by computerized clinical decision support.

PLoS ONE 7(8): e43617.

Reasons for Misuse of Prescription Medication Among Physicians Undergoing Monitoring by a Physician Health Program

Objectives: Substance-related impairment of physicians is a small but serious problem, with significant consequences for patient safety and public health. The purpose of this study was to identify reasons for prescription drug misuse among physicians referred to a physician health program for monitoring because of substance related impairment, to develop better mechanisms for prevention and intervention.

Methods: A total of 55 physicians (94.5% male) who were being monitored by their State physician health program because of substance-related impairment participated in guided focus group discussions. Participation was anonymous. Discussions were transcribed from 9 separate focus groups, lasting 60 to 90 minutes each. Qualitative analyses were conducted to examine themes.

Results: All participants were diagnosed with substance dependence, and 69.1% of them endorsed a history of misusing prescription drugs. Participants documented the following 5 primary reasons for prescription drug misuse: (1) to manage physical pain, (2) to manage emotional/psychiatric distress, (3) to manage stressful situations, (4) to serve recreational purposes, and (5) to avoid withdrawal symptoms.

Conclusions: Our results emphasize the importance of self-medication as a leading reason for misusing prescription medications, although recreational use was also an important factor. Prevention efforts targeting prescription drug misuse among physicians should be initiated during medical training, with continuing education requirements throughout the physicians’ careers.


Ed: This study points out the blinders that some healthcare providers (and most people) wear, relying only on what they have been told in school. All five of the excuses given are well treated with psychotherapy, yet they only thought to use a chemical. A sad commentary on our profession’s ability to communicate the hard science of our field.

Antidepressant use has doubled in rich nations in past 10 years

Consumption of antidepressants has increased markedly in the world’s richest nations over the past decade, show new data. The figures, collected from 24 member nations of the Organisation of Economic Co-operation and Development and included in the OECD’s annual Health at a Glance report, show that Iceland had the highest antidepressant consumption. Its defined daily dose of antidepressants was 106 for every 1000 people a day in 2011, nearly twice the average of 56 for the countries included in the study and up from up from 70.5 in 2000. The defined daily dose is a statistical measure that represents
the average daily maintenance dosage for the main indication of a drug or drug category. It is used to aggregate data on different doses, strengths, and formulations to enable comparison of consumption across different settings.

Antidepressant use almost doubled in the second ranked country, Australia, its defined daily dose rising from 45 in 2000 to 89 in 2011. After Australia came Canada (86), Denmark (85), and Sweden (79). The United Kingdom’s defined daily dose was 71 in 2011, up from 37 in 2000. The study did not include figures for the United States, but the US National Center on Health Statistics said that 11% of Americans aged 12 years or over take antidepressants. Korea has the lowest antidepressant consumption, with a defined daily dose of 13, one eighth that of Iceland, the report found.

Part of the rise seen across countries could be explained by an increase in the intensity and duration of treatments, the report said. “In England, for example, the increase in antidepressant consumption has been associated with a longer duration of drug treatment,” it said.

Another factor behind the rise is the growing number of indications for which these drugs were used, including milder forms of depression, anxiety, and social phobias, the report added. “These extensions have raised concerns about appropriateness.”

Some increases in consumption in Europe could be due to insecurity arising from the economic crisis, the report said. Spain and Portugal saw increased use, the report noted. However, “consumption of antidepressants rose even more quickly in countries such as Germany (a rise of 46% between 2007 and 2011) that were less affected by the economic crisis and have experienced a more rapid economic recovery.”

BMJ 2013; 347 5 December 2013

Medicalising unhappiness: new classification of depression risks more patients being put on drug treatment from which they will not benefit

Clinical context—Diagnoses of major depressive disorder and treatment with antidepressant drugs are increasing

Diagnostic change—DSM-III homogenised the diagnosis of depression and the new DSM-5 classification broadens the definition further, allowing the diagnosis of major depressive disorder just two weeks after bereavement

Rationale for change—To provide more patients with access to effective treatments

Leap of faith—Accurate diagnosis of mild depression is possible; treatment is necessary and leads to better outcomes

Increase in disease—Although community prevalence of major depressive disorder has remained static, diagnoses doubled among Medicare recipients in the US between 1992-95 and 2002-05

Evidence of overdiagnosis—Depression is now more likely to be overdiagnosed than underdiagnosed in primary care. Rates of prescribing of antidepressant medication doubled in the UK between 1998 and 2010 and in the US 11% of the population aged over 11 now takes an antidepressant. People without evidence of major depressive disorder are being prescribed drug treatment

Harms from overdiagnosis—Turning grief and other life stresses into mental disorders represents medical intrusion on personal emotions. It adds unnecessary medication and costs, and distracts attention and resources from those who really need them

Limitations—We do not know whether clinicians will follow the DSM-5 proposals

Conclusions—Patients with mild depression or uncomplicated grief reaction usually have a good prognosis and don’t need drug treatment. Clinicians should focus on identifying people with moderate to severe depressions and sufficient impairment to require treatment.

BMJ 2013; 347 doi: http://dx.doi.org/10.1136/bmj.f7140 (Published 9 December 2013)

Perinatal Antidepressant Use: Understanding Women’s Preferences and Concerns

Perinatal depression is prevalent and linked with a host of adverse consequences for women and newborns. Rates of engagement in depression treatment are, however, strikingly low among pregnant and postpartum women, with the majority of affected women receiving no mental health treatment. Research indicates that perinatal women are extremely reluctant to take antidepressant medications, yet the nature of women’s concerns and treatment decision-making patterns have not been well documented. Developing a clearer understanding of women’s treatment preferences and behaviors may help identify solutions to the under-treatment of perinatal depression. In this mixed methods study, we conducted in-depth interviews with 61 pregnant women,
approximately half of whom were experiencing clinical levels of depression. In addition to assessing psychiatric diagnoses, symptoms, and functional impairment, we conducted qualitative interviews addressing women’s preferences for depression treatment, concerns, and decision-making patterns. Consistent with prior reports, women were significantly more likely to voice a preference for non-pharmacologic depression treatments, as opposed to antidepressant medications. Many depressed women reported a great degree of uncertainty regarding how to treat their depression, and those with more severe depression symptoms were more likely to endorse decisional conflict. Analysis of qualitative comments yielded detailed information about the nature of women’s concerns and preferences related to use of antidepressant medications and other aspects of treatment engagement. We discuss findings in the context of improving patient-centered care for perinatal depression.


Ed: Is this a chemical company’s cry for help? For profit journals such as JPP do require that, “Authors must state all possible conflicts of interest in the manuscript, including financial, consultant, institutional and other relationships that might lead to bias or a conflict of interest. If there is no conflict of interest, this should also be explicitly stated as none declared. All sources of funding should be acknowledged in the manuscript.” The pubmed published abstract does not have this information, more or less typical of American publications.

Anti-epilepsy drugs can cause inflammations

Physicians at the Ruhr-Universität Bochum (RUB) have been investigating if established anti-epilepsy drugs have anti-inflammatory or pro-inflammatory properties – an effect for which these pharmaceutical agents are not usually tested. One of the substances tested caused stronger inflammations, while another one inhibited them. As inflammatory reactions in the brain may be the underlying cause for epileptic disorders, it is vital to take the trigger for the disorder under consideration when selecting drugs for treatment, as the researchers concluded. They published their report in the journal “Epilepsia”.

Glial cells treated by the researchers with valproic acid and gabapentin had better survival chances than those treated with phenytoin and carbamazepine. However, carbamazepine had a positive effect, too: it reduced inflammatory responses. Valproic acid, on the other hand, turned out to be pro-inflammatory. In how far the anti-epilepsy drugs affected inflammations was also determined by the applied dose. Consequently, different drugs affected glial cells – and hence indirectly the neurons – in different ways.

Press Office Ruhr University Bochum, 12/19/2013

Efficacy and tolerability of quetiapine versus haloperidol in first-episode schizophrenia: a randomized clinical trial

Schizophrenia is a chronic disease of global importance. The second-generation antipsychotic quetiapine has a favorable side-effect profile, however, its clinical effectiveness has been called into question when compared with first-generation antipsychotics such as haloperidol. This study evaluates the efficacy and tolerability of quetiapine versus haloperidol for first-episode schizophrenia in the outpatient setting.

156 adult patients with first-episode schizophrenia participated in an outpatient clinical trial and were randomized to quetiapine (200 mg/d; n = 78) or haloperidol (5 mg/d; n = 78). The study medications were titrated to a mean daily dose of 705 mg for quetiapine and 14 mg for haloperidol. The patients were assessed at baseline, six weeks, and twelve weeks. The primary outcome measures were positive and negative scores of the Positive and Negative Syndrome Scale (PANSS). Secondary measures were Global Assessment of Functioning (GAF) scale for overall psychosocial functioning, and Simpson-Angus Scale (SAS) for extra-pyramidal symptoms.

At twelve weeks, the quetiapine group had a greater decrease in PANSS positive (18.9 vs. 15.3, p = 0.013) and negative scores (15.5 vs. 11.6, p = 0.012), however, haloperidol showed a greater decrease in general psychopathology score (23.8 vs. 27.7, p = 0.012). No significant difference between groups were found for total PANSS (58.3 vs. 54.8, p = 0.24) and GAF (45.7 vs. 46.2, p = 0.79).

ANOVA identified significant group interactions on PANSS positive (F = 18.72, df = 1.6,52.4, p < 0.0001) and negative (F = 5.20, df = 1.1,35.7, p < 0.0001), depression/anxiety (F = 106.49, df = 1.14,37.8, p < 0.0001), and total scores (F = 7.51, df = 1.4,45.6, p = 0.001).

SAS (8.62 vs. 0.26, p < 0.0001) and adverse events of...
akathisia (78% vs. 0%, p = 0.000), parkinsonism (66.6% vs. 0%, p < 0.0001), and fatigue (84.6% vs. 66.6%, p = 0.009) were greater in haloperidol compared to quetiapine, whereas headache was more common in quetiapine treated patients (11.5% vs. 35.9%, p < 0.0001).

Conclusions

Quetiapine has greater efficacy for positive and negative symptoms with less extra-pyramidal symptoms than haloperidol when used for first-episode schizophrenia in the outpatient setting.

International Archives of Medicine 2013, 6:47

Ed: Haloperidol showed a greater decrease in general psychopathology score (23.8 vs. 27.7, p = 0.012). No significant difference between groups were found for total PANSS. Only through exotic statistical methods was Quetiapine NOT found inferior.

Physical Activity and the Prevention of Depression: A Systematic Review of Prospective Studies

A comprehensive search was conducted up until December 2012 in the following databases: MEDLINE, Embase, PubMed, PsycINFO, SPORTDiscus, and Cochrane Database of Systematic Reviews. Data were analyzed between July 2012 and February 2013. Articles were chosen for the review if the study used a prospective-based, longitudinal design and examined relationships between PA and depression over at least two time intervals. A formal quality assessment for each study also was conducted independently by the two reviewers.

The initial search yielded a total of 6363 citations, and 30 studies were included for analyses. Among these, 25 studies demonstrated that baseline PA was negatively associated with a risk of subsequent depression. The majority of these studies were of high methodologic quality, providing consistent evidence that PA may prevent future depression. There is promising evidence that any level of PA, including low levels (e.g., walking <150 minutes/weeks), can prevent future depression.

Conclusions: From a population health perspective, promoting PA may serve as a valuable mental health promotion strategy in reducing the risk of developing depression.


35 Year Study Finds Exercise Reduces Risk of Dementia

Science News Dec. 9, 2013 — The study identifies five healthy behaviors as being integral to having the best chance of leading a disease-free lifestyle: taking regular exercise, non-smoking, a low body weight, a healthy diet and a low alcohol intake.

The people who consistently followed four or five of these behaviors experienced a 60 per cent decline in dementia and cognitive decline -- with exercise being the strongest mitigating factor -- as well as 70 per cent fewer instances of diabetes, heart disease and stroke, compared with people who followed none.

The Caerphilly Cohort Study recorded the healthy behaviors of 2,235 men aged 45-59 in Caerphilly, South Wales. The study had multiple aims and has been the basis for over 400 research papers in the medical press. One of the most important aims was to examine the relationship between healthy lifestyles, chronic disease and cognitive decline over a 35-year period; and to monitor changes in the take-up of healthy behaviors.

Science News Dec. 9, 2013

Research linking autism symptoms to gut microbes called ‘groundbreaking’

A new study showing that feeding mice a beneficial type of bacteria can ameliorate autism-like symptoms is “groundbreaking,” according to University of Colorado Boulder Professor Rob Knight, who co-authored a commentary piece about the research appearing in the current issue of the journal Cell.

The autism study, published today in the same issue of Cell, strengthens the recent scientific understanding that the microbes that live in your gut may affect what goes on in your brain. It is also the first to show that a specific probiotic may be capable of reversing autism-like behaviors in mice.

“The broader potential of this research is obviously an analogous probiotic that could treat subsets of individuals with autism spectrum disorder,” wrote the commentary authors, who also included CU-Boulder Research Associate Dorota Porazinska and doctoral student Sophie Weiss.

The study underscores the importance of the work being undertaken by the newly formed Autism Microbiome Consortium, which includes Knight as well as commentary co-authors Jack Gilbert of the University of Colorado Boulder and...
Chicago and Rosa Krajmalnik-Brown of Arizona State University. The interdisciplinary consortium—which taps experts in a range of disciplines from Psychology to epidemiology—is investigating the autism-gut microbiome link.

For the new Cell study, led by Elaine Hsiao of the California Institute of Technology, the researchers used a technique called maternal immune activation in pregnant mice to induce autism-like behavior and neurology in their offspring. The researchers found that the gut microbial community of the offspring differed markedly compared with a control group of mice. When the mice with autism-like symptoms were fed Bacteriodes fragilis, a microbe known to bolster the immune system, the aberrant behaviors were reduced.

Scientific evidence is mounting that the trillions of microbes that call the human body home can influence our gut-linked health, affecting our risk of obesity, diabetes and colon cancer, for example. But more recently, researchers are discovering that gut microbes also may affect neurology—possibly impacting a person’s cognition, emotions and mental health, said Knight, also a Howard Hughes Medical Institute Early Career Scientist and an investigator at CU-Boulder’s BioFrontiers Institute.

The Autism Microbiome Consortium hopes to broaden this understanding by further studying the microbial community of autistic people, who tend to suffer from more gastrointestinal problems than the general public.

People with autism spectrum disorder who would like to have their gut microbes sequenced can do so now through the American Gut Project, a crowdfunded research effort led by Knight.

University of Colorado at Boulder public release date: 19-Dec-2013

**Exercise Alleviates Sexual Side-Effects of Antidepressants in Women**

New Psychology research, which could have important public health implications for alleviating some side effects of antidepressants, shows that engaging in exercise at the right time significantly improves sexual functioning in women who are taking the antidepressants.

The study, published online in Depression and Anxiety, shows that sexual dysfunction can be effectively treated with an inexpensive, non-invasive prescription of moderately intense workouts.

“These findings have important implications for public health, as exercise as a treatment for sexual side effects is accessible, cheap and does not add to burden of care,” says Tierney Lorenz, an Indiana University post-doctoral research fellow who conducted the study at The University of Texas at Austin with Psychology Professor Cindy Meston.

The researchers recruited 52 women who reported sexual side effects from antidepressants. During the first three weeks of the study, the participants engaged in sexual activity with no exercise. In the second experiment, the participants completed either three weeks of exercise immediately before sexual activity, or three weeks of exercise not timed to it. They all also engaged in sexual activity and 30 minutes of strength training and cardio exercise three times a week. The two groups then reversed roles in the last experiment. Women who exercised regularly were asked to add three extra sessions to their workout routines.

The results showed that 30 minutes of exercise just before intercourse can reduce the effect of the libido-dulling drugs. They were based on the participants’ self-reported assessments of their sexual functioning, satisfaction and psychological health before and after each experiment. They also reported each sexual event in online diaries.

According to the findings, committing to a regular exercise routine improved orgasm function in all women. However, those who exercised immediately before sex experienced significantly stronger libidos and overall improvements in sexual functioning.

Moderately intense exercise activates the sympathetic nervous system, which facilitates blood flow to the genital region. Antidepressants have been shown to depress this system. Scheduling regular sexual activity and exercise may be an effective tool for alleviating these adverse side effects, Lorenz says.

“Considering the wide prevalence of antidepressant sexual side effects and the dearth of treatment options for those experiencing these distressing effects, this is an important step in treating sexual dysfunction among women who are taking antidepressants,” Lorenz says.

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Here’s a sample of news stories from this past month:

Why Anxiety and Alcohol May Go Hand-in-Hand Eric Metcalf
Most, if not all of us, feel anxious from time to time. Perhaps we’re running late to work, or we have an urgent deadline awaiting us once we get there. But in any given year, about 40 million adults are dealing with a more serious level of anxiety called an anxiety disorder. And in many cases, people with an anxiety disorder also have a problem with alcoholism. Anxiety and Alcoholism: The Connection. A type of anxiety disorder called social anxiety disorder appears to have a particularly strong link to alcohol abuse. Nearly half of all people diagnosed with social anxiety disorder also meet the definition for so-called "alcohol use disorder." And women with social anxiety disorder appear to be more likely to have an alcohol problem than men. Social anxiety disorder is also called social phobia. People with this problem have an unusually strong sense of anxiety while they're out in public. Although many of us have a fear of speaking to large groups, people with social anxiety disorder may even have trouble eating, having a conversation, or doing other everyday activities in public without having the sense that they're being watched or judged. A recent study that tracked adolescents into adulthood over roughly 14 years found that those with social anxiety disorder at the beginning of the study were roughly 4.5 times more likely to develop alcohol dependence.

Adolescent solitary drinking increases risk of developing alcohol problems in young adulthood @MNT_psychology
Most teenagers who drink alcohol do so with their friends in social settings, but a new study by researchers at Carnegie Mellon University and the University of Pittsburgh reveals that a significant number of adolescents consume alcohol while they are alone. The researchers found that compared to their peers who drink only in social settings, teens who drink alone have more alcohol problems, are heavier drinkers and are more likely to drink in response to negative emotions. Furthermore, solitary teenage drinkers are more likely to develop alcohol use disorders in early adulthood. "We're learning that kids who drink alone tend to do so because they're feeling lonely, are in a bad mood, or had an argument with a friend," said lead author Kasey Creswell, assistant professor of psychology in CMU's Dietrich College of Humanities and Social Sciences. "They seem to be using alcohol to self-medicate as a way to cope with negative emotions and, importantly, this pattern of drinking places them at high risk to escalate their alcohol use and develop alcohol problems in adulthood." Previous research has shown that adolescents who drink alone consume more alcohol and drink more frequently than their social-drinking peers, and that heavier alcohol use in adolescence is associated with a greater risk of developing alcohol problems in adulthood. This study is the first to determine whether solitary drinking during teenage years impacted the development of alcohol use disorders as young adults, after controlling for other known risk factors. For the study, the researchers first surveyed 709 adolescents between the ages of 12 and 18 at the Pittsburgh Adolescent Alcohol Research Center (PAARC), asking them to report on their alcohol use in the past year. Adolescents represented youth from clinical treatment programs and the community. When the participants turned 25, they were again asked about their alcohol use and assessed for alcohol use disorders. The results showed that 38.8 percent of teens in the sample reported drinking alone during ages 12-18. This behavior was linked to unpleasant emotions, and solitary drinkers were one and a half times more likely to develop alcohol dependence at age 25.

Mayo Clinic Researchers Find Possible Link Between Gluten, Type 1 Diabetes Maureen McCollum @MayoClinic
Researchers at Mayo Clinic have found that gluten may play a role in developing Type 1 diabetes. With Type 1 diabetes (also known as juvenile onset diabetes) the immune system attacks the pancreatic cells that produce insulin. The pancreas then produces little to no insulin, affecting energy production in cells. For a while, researchers have seen connections between Type 1 diabetes and celiac disease, an immune system reaction to gluten. The diseases often occur in the same families – so Mayo Clinic researchers decided to explore the connection deeper. After a series of tests on mice, doctors found that gluten can affect the gut bacteria that increase the chances of getting Type 1 diabetes. After mice were put on a gluten-free diet, their chances of getting diabetes went down significantly. Mayo Clinic gastroenterologist and study co-author Dr. Joseph Murray says the findings may not help people who have already been...
diagnosed with Type 1 diabetes. “What it may be very relevant to are the people who are thought to be at risk for Type 1 diabetes but haven’t developed it.” “It’s possible in future, if we have some way of restoring the cells that produce insulin, well then we want to make sure adapt or alter the immune system so it doesn’t want to attack these very crucial cells for our survival,” adds Murray. Murray says eventually they’ll study the effects in humans. They’ll see how diets influence the gut bacteria and how those bugs interact with the immune system. At this point, Murray says he’s not encouraging patients to change their diets.

New study provides more evidence on benefits of anti-inflammatory diet JOEY HOLLEMAN @medcitynews: The evidence for the health benefits of anti-inflammatory foods keeps building, with a recent University of South Carolina study showing a strong link between inflammatory foods and gastrointestinal tract cancers. The study, funded by the USC Center for Colon Cancer Research and presented as a poster at a recent American Institute of Cancer Research meeting, took a fresh look at existing dietary data from the Aerobics Center Longitudinal Study from 1987-2003. Using an inflammatory diet index developed by James Hebert, director of the South Carolina Statewide Cancer Prevention and Control Program and a distinguished professor at USC, researchers determined that participants with an anti-inflammatory diet were 400 percent less likely to die from gastrointestinal cancers. Susan Steck, one of the study’s authors and an associate professor at USC, cautioned that the sample size for GI deaths in the study is small. The 400 percent number shouldn’t be the takeaway as much as the growing evidence that diet can play a major role in diseases such as esophageal, stomach and colorectal cancer. And an inflammatory diet can contribute to higher rates of those cancers.

Too Much Sugar Can Stress Your Heart The Beating Edge Team @ClevelandClinic A recent study originally published in the Journal of the American Heart Association found that large amounts of sugar damaged human heart tissue and caused disease in laboratory animals. Numerous studies have shown that chronic high blood sugar levels (associated with uncontrolled diabetes and other conditions) lead to atherosclerosis, or hardening of the arteries, and are associated with heart disease and heart failure. However, the exact physiologic effect of sugar on heart tissue remained uncertain until now. Are You Eating Too Much Sugar? Stressing the heart Researchers worked with test animals and human heart tissue samples to learn more about links between diet and cardiovascular disease. Endocrinologist Betul Hatipoglu, MD, did not participate in the study, but reviewed it. She explains, “In this study, a small molecule, glucose 6-phosphate (G6P), which is a product of sugar from food, was shown to cause stress to the heart.” Glucose 6-phosphate actually decreased the function of the heart muscle, which could eventually lead to heart failure. The team used animal models to show that G6P accumulation in the blood (as seen in high-sugar diets) injured heart muscle that was already stressed from high blood pressure and high cholesterol. People who have chronic high blood pressure and high cholesterol levels could benefit from the results of this research, so further investigation is warranted. The Scoop on Sweeteners Sugar blocking drugs: Once the researchers observed the damage that G6P had on stressed heart tissue, they set out to prove that it was G6P that caused the problems. They did this by using drugs (rapamycin and metformin) that blocked or reduced G6P’s signals. The sugar-blocking drugs protected heart muscle from stress and prevented damage to cardiac function in the test animals, confirming the researchers’ original findings. The sugar study is significant because it shows a link between sugar and heart muscle damage. A diet too high in sugar and starches increases the risk for obesity, diabetes and heart disease, so knowing more about the direct effects of sugar on heart tissue is important. These findings could eventually lead to more effective treatment and prevention of heart disease and heart failure, specifically for those with high blood pressure, high cholesterol levels, or diabetes.

Depression and Obesity: Depression can lead to overeating and weight gain; obesity can lead to overwhelming sadness. Learn how to break the cycle. Dennis Thompson Jr One in every 10 Americans deals with depression each year, according to the U.S. Centers for Disease Control (CDC); the same organization says that the United States is home to more than 70 million obese people. But how many of these Americans have both conditions: Depression and obesity? … does depression cause obesity, or does obesity prompt depression? … Research has shown that there's no clear, one-way connection between obesity and depression. Instead, studies have shown that the two tend to feed off each other in a vicious, self-destructive circle. Obesity causes depression. Studies have shown that obese people are about 25 percent more likely to experience a mood disorder like depression compared with those who are not obese. Obesity can cause poor self-image, low self-esteem, and social
Isolation, all known contributors to depression. Those who are obese can also find themselves ostracized, stereotyped, and discriminated against. The extra weight carried around by obese people can result in chronic joint pain as well as serious diseases like diabetes and hypertension, all of which have been linked to depression. ... A study of adolescents in Cincinnati found that teenagers with symptoms of depression were more likely to become obese within the next year. The study also found that kids who were borderline obese and depressed became substantially obese over the following year. People experiencing depression are more likely to overeat or make poor food choices, avoid exercising, and become more sedentary. Researchers have found that depressed people with decreased levels of the hormone serotonin also have a tendency toward obesity — they tend to eat in an attempt to self-medicate and restore their serotonin levels to normal. ... Depression. Successfully treating depression can be a lot easier than successfully treating obesity, so doctors recommend that people with depressive symptoms — especially if they are adolescents — seek treatment as soon as possible. Treatment can include psychotherapy or antidepressants. Obesity. A study of people who underwent bariatric surgery for their obesity found that as they shed pounds, they also shed their depression. A year after surgery, the subjects had experienced a 77 percent loss of excess body weight, and an accompanying 18 percent reduction in symptoms of depression. Younger people, women, and those who experienced greater weight-loss results were more likely to feel less depressed. These results indicate that a team approach might be best for dealing with depression and obesity. ... Why does depression seem to affect women more often than men? Here's a look at the latest research. Wyatt Myers When it comes to depression and the sexes, the numbers tell the story: Depression in women is much more common than depression in men. According to the most recent data from the Centers for Disease Control, 5.4 percent of all people above age 12 in the United States have depression, including 6.7 percent of women, but just 4 percent of men. About 12 million American women suffer with depression each year. Over the course of a lifetime, about 1 in 8 women develop clinical depression. Factors at Play: Genetic, social, environmental, and physiological factors contribute to women's increased vulnerability to depression. Levels of hormones such as estrogen and progesterone fluctuate throughout a woman's lifetime, including after childbirth and during menopause, which can contribute to depression. In addition, social pressures, such as expectations placed on women to be the main caregivers for both children and elderly parents, can play a role. Women also experience higher rates of sexual abuse, eating disorders, and poverty, which may contribute to depression. ... In a recent CDC survey, 11 percent to 18 percent of women reported having “frequent” postpartum depressive symptoms. Premenstrual syndrome (PMS) ... affects up to 75 percent of women during their childbearing years, may also increase a woman’s vulnerability to depression. PMS occurs most commonly in women between their late 20s and early 40s, and among women with at least one child; symptoms can worsen as a woman approaches menopause. Many women with PMS experience depression-like symptoms, such as fatigue, sadness, hopelessness, and forgetfulness, in the week before menstruation starts. But in some women, symptoms are so severe that a depressive disorder results. This is called premenstrual dysphoric disorder (PMDD). ... PMDD is likely influenced by hormonal fluctuations, but excess weight, alcohol abuse, and a family history of the disorder appear to contribute to a woman’s risk. Many women with PMDD have also been diagnosed with major depression. ... Menopause can also put women at greater risk of some types of depression. Studies have suggested that women with no history of depression are two to four times more likely to report a depressive mood during menopause than they are before menopause. Women with a history of depression are five times more likely to have a major depressive episode during menopause. As with pregnancy and childbirth, a combination of hormonal and psychological factors contribute to depression during menopause. ... For many women, this major life transition also weighs heavily on their minds. While many factors can contribute to the onset of major depression, hormonal changes during different stages of a woman's life influence the depression rates among women.

Happier in a crowd? New study may explain why @MNT_psychology A new study suggests that people who are happier in crowds are able to share a 'social identity' with crowd members and do not see others as an invasion of personal space. The first event was an outdoor music concert called the Big Beach Boutique, which took place in Brighton, England, in 2002. Around 250,000 people attended this event, and each crowd member only had 0.5 m2 of space. The investigators surveyed 48 people who attended this event. The second event was an outdoor protest march against changes in the UK’s National Health Service (NHS). Approximately 7,000
people attended the march, and each person had around 0.3 m² of space. From this event, the researchers surveyed 112 attendees. Questionnaires required the participants to disclose whether they were feeling too crowded at these events, their social identification with other members of crowd, and whether they felt any positive emotions. Survey results revealed that the more the participants defined themselves as feeling "a part of the crowd," the less likely they were to report feeling too crowded. Furthermore, the more the participants said they felt too crowded, the less positive emotion they reported. The investigators say these findings help explain why a crowd may look "hellish" from the outside, but once on the inside it can be a "heavenly" experience. They note that for many people, the crowd itself is seen as a main part of the event attraction. ... The researchers note that their findings may also have important implications for psychology. Dr. John Drury, of the University of Sussex ... adds: "Our findings are part of a body of work that shows that we have multiple identities based on our group memberships. The salience of different identities varies according to social context. At those times when people share a social identity with us, their presence is not an invasion of our space at all. They are not 'other' - they are 'us.'"

Majority of mental health problems go untreated in teenagers @mnt_psychology
More than half of adolescents with psychiatric disorders receive no treatment of any sort, says a new study by E. Jane Costello, a Duke University professor of psychology and epidemiology and associate director of the Duke Center for Child and Family Policy. When treatment does occur, the providers are rarely mental health specialists, says the study, which was based on a survey of more than 10,000 American teenagers. The country's mental health system has come under scrutiny in recent years, following a string of mass shootings, such as the murders at Columbine High in Colorado, in which mental illness seems to have played a role. The new study underlines the need for better mental health services for adolescents, Costello said. "It's still the case in this country that people don't take psychiatric conditions as seriously as they should," Costello said. "This, despite the fact that these conditions are linked to a whole host of other problems." Costello noted that not all teens in the study fared the same. Treatment rates varied greatly for different mental disorders, for instance. Adolescents with ADHD, conduct disorder or oppositional defiant disorder received mental health care more than 70 percent of the time. By contrast, teens suffering from phobias or anxiety disorders were the least likely to be treated. Results also varied greatly by race, with black youths significantly less likely to be treated for mental disorders than white youths. The care that teenagers received also varied greatly. In many cases, care was provided by pediatricians, school counselors or probation officers rather than by people with specialized mental health training. There simply are not enough qualified child mental health professionals to go around, Costello said. "We need to train more child psychiatrists in this country," Costello said. "And those individuals need to be used strategically, as consultants to the school counselors and others who do the lion's share of the work." The study draws on data from the National Comorbidity Survey Adolescent Supplement, a nationally representative face-to-face survey of 10,148 adolescents between the ages of 13 and 17. It was published online in Psychiatric Services.

Is synaesthesia more common in autism? Simon Baron-Cohen1, Donielle Johnson, Julian Asher, Sally Wheelwright, Simon E Fisher, Peter K Gregersen, and Carrie Allison @OA_NeuroPsych
Background: Synaesthesia is a neurodevelopmental condition in which a sensation in one modality triggers a perception in a second modality. Autism (shorthand for Autism Spectrum Conditions) is a neurodevelopmental condition involving social-communication disability alongside resistance to change and unusually narrow interests or activities. Whilst on the surface they appear distinct, they have been suggested to share common atypical neural connectivity. Methods: In the present study, we carried out the first prevalence study of synaesthesia in autism to formally test whether these conditions are independent. After exclusions, 164 adults with autism and 97 controls completed a synaesthesia questionnaire, Autism Spectrum Quotient, and Test of Genuineness-Revised (ToG-R) online. Results: The rate of synaesthesia in adults with autism was 18.9% (31 out of 164), almost three times greater than in controls (7.22%, 7 out of 97, P <0.05). ToG-R proved unsuitable for synaesthetes with autism. Conclusions: The significant increase in synaesthesia prevalence in autism suggests that the two conditions may share some common underlying mechanisms. Future research is needed to develop more feasible validation methods of synaesthesia in autism.

Fifth type of tedium identified - apathetic boredom @MNT_psychology
Being bored has just become a little more nuanced, with the addition of a fifth type of boredom by which to describe this emotion. The finding has been published in Springer's journal Motivation and Emotion. In cooperation with colleagues at...
The irony in this is that gazing upon things that we know to be formed by natural causes, such as the jaw-dropping
mindset - a discomfort with uncertainty - may explain why feelings of awe produce a greater belief in the supernatural.

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inspiring but impossible scenes, such as a massive waterfall through city streets, were presented. Another study showed
were more likely to believe in God when compared with the news-watching group. This effect held even when awe-
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Awe-inspiring moments - like the sight of the Grand Canyon or the Aurora Borealis - might increase our tendency to
believe in God and the supernatural, according to new research. The new findings suggest that awe-inspiring sights
increase our motivation to make sense of the world around us, and may underlie a trigger of belief in the supernatural.
"Many historical accounts of religious epiphanies and revelations seem to involve the experience of being awe-struck by
the beauty, strength or size of a divine being, and these experiences change the way people understand and think about
the world", says psychological scientist Piercarlo Valdesolo of Claremont McKenna College. "We wanted to test the
exact opposite prediction: It's not that the presence of the supernatural elicits awe, it's that awe elicits the perception of
the presence of the supernatural." Valdesolo and his colleague Jesse Graham of the University of Southern California
tested this prediction by having participants watch awe-inspiring scenes from BBC's Planet Earth documentary series or
neutral video clips from a news interview. Afterward, the participants were asked how much awe they felt while watching
the video, and whether they believed that worldly events unfold according to some god's or other non-human entity's
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"The irony in this is that gazing upon things that we know to be formed by natural causes, such as the jaw-dropping
Repeated exposure to negative events may neutralize them @PsychologyNow
Researchers from the Tel Aviv University claim that repeated exposure to a negative event may prevent it from affecting you. A bad mood has more knock-on effects than simply causing distress. It can slow reaction time and affect speech, writing and counting. "A bad mood is known to slow cognition. We show that, counterintuitively, you can avoid getting into a bad mood in the first place by dwelling on a negative event," says Dr. Moshe Shay Ben-Haim, from the university's School of Psychological Sciences. "If you look at the newspaper before you go to work and see a headline about a bombing or tragedy of some kind, it's better to read the article all the way through and repeatedly expose yourself to the negative information. You will be freer to go on with your day in a better mood and without any negative effects."... Colorful language: Participants struggled to identify the color of words with negative meanings and were slower to confirm the color of neutral words after a single exposure to a negative word. In this test, participants are shown a variety of words that are printed in different colors and asked to name the color in which they are printed. But as every reader will have an emotional reaction to words, this speeds up or slows down our ability to name the color. In general, people are slower to identify the color of "negative" words, such as "terrorism," but quicker when the words are neutral, such as "table." And this trend was noticeably more pronounced when people with emotional disorders, such as depression or anxiety, were tested. One explanation for this is that negative words are distracting, while another suggests we may feel threatened by the words. In both cases, researchers surmise, the reason we are slower to identify the ink colors is because our mental resources are tied up elsewhere. But neither of these theories explain why the effects persist. After the initial distraction or threat, one might expect people to identify the colors of neutral words without delay. Not so, say the researchers. They found that when people were shown the negative words, they continued to name the colors of neutral words more slowly. However, if they were shown the same negative word twice in the same test, they were able to identify and name the color of neutral words without any delay. The researchers suggest that seeing a negative word puts the participants in a bad mood but that repeated exposure to that word diffuses its power to upset or alarm. This theory was supported by a questionnaire completed by the participants following the test. The investigators also found that the participants who had seen the negative word just once were also slower at completing the questionnaire. They say their work could have an impact on our understanding of emotions and how we process cues from our environment.

Gene-silencing study finds new targets for Parkinson’s disease @NIH
Scientists at the National Institutes of Health have used RNA interference (RNAi) technology to reveal dozens of genes which may represent new therapeutic targets for treating Parkinson’s disease. The findings also may be relevant to several diseases caused by damage to mitochondria, the biological power plants found in cells throughout the body. ... Some cases of Parkinson’s disease have been linked to mutations in the gene that codes for parkin, a protein that normally roams inside cells, and tags damaged mitochondria as waste. The damaged mitochondria are then degraded by cells’ lysosomes, which serve as a biological trash disposal system. Known mutations in parkin prevent tagging, resulting in accumulation of unhealthy mitochondria in the body. RNAi is a natural process occurring in cells that helps regulate genes. Since its discovery in 1998, scientists have used RNAi as a tool to investigate gene function and their involvement in health and disease. ... The RNAi group used robotics to introduce small interfering RNAs (siRNAs) into human cells to individually turn off nearly 22,000 genes. They then used automated microscopy to examine how silencing each gene affected the ability of parkin to tag mitochondria. ... Next the researchers tested one of the genes in human nerve cells. The researchers used a process called induced pluripotent stem cell technology to create the cells from human skin. Turning off the TOMM7 gene in nerve cells also appeared to inhibit tagging of mitochondria. Further experiments supported the idea that these genes may be new targets for treating neurological disorders. “These genes work like quality control agents in a variety of cell types, including neurons,” said Dr. Youle. “The identification of these helper genes provides the research community with new information that may improve our understanding of Parkinson’s
A Professional Association Representing the Interests of Psychology Doctors in the Health Care System

“Disease and other neurological disorders.” ... “This study shows how the latest high-throughput genetic technologies can rapidly reveal insights into fundamental disease mechanisms,” said Story Landis, Ph.D., director of the NINDS. “We hope the results will help scientists around the world find new treatments for these devastating disorders.”

**Brains feel and think alike when playing computer games @mnt_psychology**

It’s well known that people who communicate face-to-face will start to imitate each other. People adopt each other’s poses and gestures, much like infectious yawning. What is less known is that the very physiology of interacting people shows a type of mimicry - which we call synchrony or linkage, explains Michiel Sovijärvi-Spapé. In the study, test participants play a computer game called Hedgewars, in which they manage their own team of animated hedgehogs and in turns shoot the opposing team with ballistic artillery. The goal is to destroy the opposing team's hedgehogs. The research team varied the amount of competitiveness in the gaming situation: players teamed up against the computer and they were also pinned directly against each other. The players were measured for facial muscle reactions with facial electromyography, or fEMG, and their brainwaves were measured with electroencephalography, EEG. Replicating previous studies, we found linkage in the fEMG: two players showed both similar emotions and similar brainwaves at similar times. We further observed a linkage also in the brainwaves with EEG, tells Sovijärvi-Spapé. A striking discovery indicates further that the more competitive the gaming gets, the more in sync are the emotional responses of the players. The test subjects were to report emotions themselves, and negative emotions were associated with the linkage effect. Although counterintuitive, the discovered effect increases as a game becomes more competitive. And the more competitive it gets, the more the players' positive emotions begin to reflect each other. All the while their experiences of negative emotions increase. ... Another interpretation suggested by the group is that the physical linkage of emotion may work to compensate a possibly faltering social bond while competing in a gaming setting.
Get one hour of CE credit by reading this edition of TCP and completing the following questions. E-mail your answers to Dr. John Caccavale, NAPPP, at doctorjc1@ca.rr.com

1. NAPPP started its public awareness campaign to educate the public that medications as a first-line treatment was based upon bad science and could be harmful to patients:
   a. One year ago
   b. Two years ago
   c. Three years ago
   d. Four years ago
   e. None of the above

2. Despite the efforts of NAPPP, retail sales of psychotropic medication continues to increase on an annual basis. True/false

3. FDA approval has recently been obtained for use of certain antipsychotic medications to promote sleep. True/false

4. The affordable care act will be costly, but will likely lead to much greater efficiency in healthcare. True/false

5. Most Psychologists have opted out of the affordable care act. True/false

6. NAPPP believes that Clinical Psychology is on the upswing. True/false

7. Which of the following people are members of the new advisory panel for NAPPP?
   a. Ward Lawson, PhD, ABPP
   b. Keith Petrosky, PhD
   c. Sharna Wood
   d. all of the above

8. Dr. Wiggins states that the main difference between Medical Psychology and psychiatry lies in our utilizing treatment of stress as our model. True/false

9. Psychiatry enhances a more holistic approach then does Medical Psychology. True/false

10. Antidepressant medications have been shown to be highly effective, especially in comparison with behavioral interventions. True/false

11. Prilosec has been found to be highly effective and rather safe for long-term use. True/false

12. Vitamin B12 deficiency can cause fatigue, depression, confusion, poor memory, and even mania and psychosis.

13. B12 levels may be affected by alcohol, antibiotics, nicotine, vitamin C, aspirin, as well as irritable bowel syndrome. True/false

14. Recent research has shown that supplemental B12 is rarely needed in people over the age of 70. True/false

15. The author of this article recommends that all people take B complex supplements. True/false

16. Proton pump inhibitors tend to increase the absorption of vitamin B12. True/false

17. The food and drug administration has cited every major ADHD drug for false and misleading advertising since 2000, some multiple times. True/false

18. Suicide ranks as the fourth leading cause of death in the United States. True/false

19. Being under the influence of alcohol actually decreases the risk of an actual suicide attempt. True/false

20. Prescribing an Apple a day to all adults age 50 and over would prevent or delay around 8500 vascular deaths such as heart attacks and strokes every year in the UK. True/false

21. In an editor’s note, it was mentioned that in Europe, it apparently is common knowledge that 8.1% of those that take antidepressants become suicidal. True/false

22. One study mentioned that approximately one in 25 prescriptions to elderly persons in primary care is inappropriate. True/false

23. In another article, it was mentioned that antidepressant use has quadrupled in poor nations over the past 10 years. True/false

24. In another study, it was found that quetiapine had greater efficacy for positive and negative symptoms than haloperidol when used for first episode schizophrenia in an outpatient setting. True/false

25. In another study, it was found that physical exercise accelerated the progression of Parkinson’s disease. True/false

26. In yet another study, it was found that engaging in exercise at the right time significantly improved sexual functioning in women who were taking antidepressants.
Current Listing of Free CE Courses

The following courses are now available free with NAPPP membership. CE credit is provided by NAPPP and alliance partners who are approved sponsors of continuing education by the National Institute of Behavioral Health Quality and the American Psychological Association. Many states require specific courses for licensure and license renewal. NAPPP courses are designed to meet these requirements. However, members should check with their state statutes to determine specific CE requirements. Contact Dr. Caccavale for details at doctorjc1@ca.rr.com

Psy #1 - Pharmacotherapeutics: 10 CE credit hours
This course presents the integration of the principles of psychology in the application of pharmacological agents in the alleviation of mental health concerns.

Psy #2 - Neuropsychological Evaluations: 10 CE credit hours
This course will take you through the selection, administration and integration of neuropsychological data into a comprehensive report. Sample report included.

Psy #3 - Custody Evaluations: 10 CE credit hours
This is a complete course on the conducting and writing of custody evaluations for the practicing psychologist. Sample report included.

Psy #4 - Forensic Evaluations: 10 CE credit hours
This course will take you through the differing forms of forensic evaluations and discuss the formation of a comprehensive forensic report.

Psy #5 - Treating Childhood Sexual Abuse: 10 CE credit hours
This course discusses the thorough diagnosis and treatment of children who have been sexually abused.

Psy #6 - Domestic Violence - Treatment and Assessment: 10 CE credit hours
This program reviews the assessment and treatment of domestic violence. Discussion of group and individual treatment is included.

Psy #7 - Ethics & Risk Management: 10 CE credit hours
This CE course qualifies for an additional 10% discount from NAPPP’s preferred malpractice insurer. This is a program that discusses the newest issues facing Psychologists ethically. A thorough discussion of prescription privileges and pharmacopsychology ethics is included.

Psy #8 - Mood Disorders: 10 CE credit hours
A review of the diagnosis of the spectrum of mood disorders along with a discussion of the psychological and pharmacological interventions for each disorder is presented.

Psy #9 - Physiology For Psychologists: 10 CE credit hours
Upon successfully completing the course, Psychologists will achieve a basic understanding of critical concepts in human physiology, including being aware of indications for referral to other health care providers for treatment and interrelationships between organs/systems, psychopharmacology, and psychopathology.

Psy #10 - Issues In Postpartum Disorders: 10 CE credit hours
A review of the evaluation and diagnosis of postpartum disorders. A review of the relevant literature is included.

Psy #11 - Doing Pre-Marital Counseling: 10 CE credit hours
Dr. Sandra Levy Ceren details how to do pre-marital counseling. This course is built upon Dr. Ceren’s many years of experience and is replete with case studies.

Psy #12 - Mastering Medical Terminology For Psychologists: 10 CE credit hours
This course is designed for Psychologists who want to learn and master medical terminology. Since collaboration is so ubiquitous in clinical practice, this course will allow clinician’s to communicate effectively with medical practitioners. A must for clinicians who regularly work with medical practitioners.

Psy #13 - Caring For The Elderly: 10 CE credit hours
This course is a basic course designed for Psychologists who want to learn additional skills related to diagnosing and treating the elderly patient. Particular attention is devoted to dementias.
Current CE courses

**Psy #14 - Diagnosing and Treating Substance Abuse: 10 CE credit hours**

This CE course is designed to give a basic understanding of diagnosing and treating patients with substance abuse problems. Primarily, the course focuses on alcohol abuse but does give coverage to the abuse of other substances including prescription drugs.

**Psy #15 - Ethics II: 4 CE Credit hours**

This course is a 4 unit course for those Psychologists who do not require the more extensive 10 unit course.

**Psy #16 - Introduction To Medical Psychology: 10 CE Credit hours**

This course is a basic course in medical psychology for Psychologists. Reading materials focus on the understanding and treatment of diseases and illnesses that Psychologists can treat.

**Psy #17 - Primary Care Psychology: 15 CE Credit hours**

This course is an introduction to how clinical psychology is practiced in a primary care setting. Reasons for integrating psychology into primary care are discussed along with treatment models and the different aspects of practice in a primary care setting.

**Psy #18 - Forensic Practice: 15 CE Credit hours**

This course is an introduction to the practice of forensic psychology for Psychologists who want to expand their services into this area of practice. Topics include psychological evaluations for the court (child custody; competency; insanity), psychological factors in eyewitness testimony, trial consultation, and criminal investigation.

**Psy #19 - Clinical Supervision: 6 CE Credit hours**

Clinical supervision is the foundational educational experience to acquire clinical skills. Most states now require that supervisors receive specific training in this important role. Clinical supervision, while appearing on the surface to be similar to psychotherapy and counseling, is a different relationship with unique qualities and characteristics that set it apart. It requires the development of new knowledge and expertise. Ethically and legally, supervisors are responsible for patient care as well as the training and development of their supervisees. Supervision becomes a balancing act between the needs of the patient population and the needs of the supervisee. This course will help you do your job better and give you skills to rely on in your supervision of interns.

**Psy #20 - Neurology For Psychologists: 15 CE Credit hours**

This course is designed to introduce clinical and neuropsychologists to basic neurological practice. It provides participants with a thorough understanding of the structure of the nervous system. Students will learn how to identify important structures and their functions. Topics include: performing a competent neurological work-up, basic description and components of typical neurological disorders, behavioral neurology, muscle disorders, sensory disorders, and ethical issues in practice.

**Psy #21 - Understanding The Affordable Care Act: 15 CE Credit hours**

This course presents a thorough presentation of the new healthcare reform laws and how both patients and practitioners will be affected as the new rules and regulations are implemented. This is a must course for those wanting to get the most out of these reforms.

**Psy #22 - Entrepreneurship For Psychologists: 10 CE credit hours**

This is an introductory course for Psychologists who want to expand their knowledge about the opportunities and benefits of becoming an entrepreneur in mental health. With the new Affordable Care Act now law, there are many opportunities for Psychologists if we can learn the concepts and success behind entrepreneurship. This is what has been missing from graduate psychology education.

**Psy #23 - Crisis Management Intervention Consulting: 15 CE credit hours**

This course is designed for clinical Psychologists who want to develop a significant and workable knowledge base to provide crisis management consulting services to municipalities and private organizations. It will also serve the function of providing practitioners with a good knowledge base to understanding crisis management interventions.
There is a famous proverb, “He who fails to plan, plans to fail.” It’s easy to notice when a submission (even with the best intentions) has not been planned well or organized. An organized and structured writing piece shows our readers (and editors!) that your arguments are clear, concise, and coherent. Hopefully with careful planning and the application of the following tips, a great submission will not be far behind!

Please keep in mind that The Clinical Practitioner is the public face of NAPPP. Internal discussions, squabbles, rants and raves, politics, and so on are best submitted to the members’ listserv. Although we entertain political discussions within our ranks only official policy positions will appear in TCP.

We Welcome Member Submissions!
NAPPP is a practice organization. Please keep all submissions to practice issues.

All Submissions regardless of type should be proof read, spell checked, grammar and punctuation checked. Minor editing can be done to prepare a submission for print; However, if more than minor corrections are needed the submission will unfortunately have to be returned.

Technical Considerations
1. Please attach submissions to your email as Word files (.doc), unless you have checked with us about other formats.
2. Use standard fonts. We have found Verdana and Georgia to be the most readable in electronic format.
3. If your submission must have special characters or fonts, please embed these in your document.
4. If your submission includes objects (pictures, graphs, drawings, etc.) these MUST be included as separate files.
5. Please include technical references and links as appropriate.

Letter Submissions
We welcome short submissions which deal with issues such as insurance and billing, reports on published research, reports on conventions attended, the business of practice, interesting solutions to patient problems, and other practice related topics.

1. Please make submissions @50-150 words.
2. The editors will select submissions based on relevance and space needs.

Submissions for feature articles
We will consider feature articles of any length dealing with practice issues, “How To” articles, and any topic directly relating to practice. Please submit your article ideas to editor.theclinicalpractioner@gmail.com

1. A brief statement of topic and short outline of your proposal will allow us to guide you on article development.
2. Articles can be any length. Please have your editor check that every sentence has a purpose and appropriate structure.
3. An Introductory Paragraph introducing your subject and main Idea of your article is a MUST.
4. Supporting Paragraphs that develop the main idea of your topic:
   - Should list the points that develop the main idea of your article
   - Please place each supporting point in its own paragraph
   - Develop each supporting point with facts, details and examples.
5. End with a Summary Paragraph or Conclusion and do this by:
   - Restating the strongest points that support the main idea
   - Conclude by restating the main idea in different words
   - Give a personal opinion or suggest a plan of action.

Keep in mind that readers will only continue as long as they are presented with new information. Do not rehash information or ideas, but do summarize in the final paragraph(s).
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A Board Certification for Clinical Psychologists

ABBHP diplomate status in behavioral healthcare practice recognizes a set of specialty skills within general healthcare. The diplomate recognizes experience and skills in working with behavioral health problems in ways that are coordinated with allopathic medicine. The Specialty of Behavioral Healthcare Practice integrates behavioral health into medical care in diagnosing, treating and providing the necessary monitoring of post-treatment behavioral follow up care.

Board certification by ABBHP is an indication to both patients and providers that you are a specialist in providing behavioral healthcare diagnoses and treatments. Our board certification, the first of its kind, tells the public and your referral sources that you are a specialist and partner in the primary care of patients.

Requirements

The ABBHP board certification is not a vanity board. It was designed by an experienced and influential board to be rigorous and to ensure the public, healthcare providers and the healthcare industry that those who possess this diplomate have achieved a high level of training and experience in providing behavioral healthcare services. Those possessing ABBHP certification are making a statement that they are behavioral healthcare practitioners who work and belong in the healthcare industry. ABBHP diplomates are doctoral level Psychologists who provide much more than psychotherapy services but can provide a wide range of interventions that only a doctoral level Psychologists can. For information on qualifying for board certification, please go to http://www.abbhp.org/

Summary of Requirements

- Current and valid license to practice psychology.
- Successfully pass an examination.
- Complete specific coursework.
- Provide a product sample.
- Provide letters of recommendation

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