



AMERICAN  
PSYCHOLOGICAL  
ASSOCIATION

# Division of Clinical Neuropsychology Newsletter 40

Volume 27, Number 2

Summer/Fall 2009

## Division 40 Executive Committee 2008 - 2009

### Elected Officers

|                      |           |
|----------------------|-----------|
| President            |           |
| Glenn Smith          | 2008-2009 |
| President Elect      |           |
| Celiane Rey-Casserly | 2008-2009 |
| Past President       |           |
| Thomas Hammeke       | 2008-2009 |
| Secretary            |           |
| Paula Shear          | 2003-2009 |
| Treasurer            |           |
| Jacobus Donders      | 2006-2009 |

### Members at Large

|                      |           |
|----------------------|-----------|
| Deborah Koltai Attix | 2008-2011 |
| Kimberly Espy        | 2006-2009 |
| Julie Bobholz        | 2007-2010 |

### Council Representatives

|                   |           |
|-------------------|-----------|
| Barbara Wilson    | 2005-2010 |
| Linus Bieliauskas | 2007-2010 |
| Jennifer Manly    | 2006-2009 |
| Joel Morgan       | 2006-2009 |

### Chairs of Standing Committees

|                       |           |
|-----------------------|-----------|
| Membership            |           |
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| Fellows               |           |
| Ida Sue Baron         | 2007-2010 |
| Program Chair         |           |
| Steven Paul Woods     | 2008-2009 |
| Program Co-Chair      |           |
| Heather Belanger      | 2008-2009 |
| Elections             |           |
| Tom Hammeke           | 2008-2009 |
| Conflicts of Interest |           |
| Erin Bigler           | 2005-2008 |

### Chairs of Ad Hoc Committees

|                                |           |
|--------------------------------|-----------|
| APA Relations                  |           |
| Deborah Koltai Attix           | 2005-2008 |
| Publications and Communication |           |
| William Barr                   | 2005-2011 |

### Chairs of Umbrella Committees

|                            |           |
|----------------------------|-----------|
| Education Advisory         |           |
| Cindy Cimino               | 2008-2011 |
| Scientific Advisory        |           |
| John Lucas                 | 2005-2011 |
| Practice Advisory          |           |
| Neil Pliskin               | 2002-2009 |
| Public Interest Advisory   |           |
| Shelley Heaton             | 2008-2011 |
| Awards Committee           |           |
| Laura Flashman             | 2008-2011 |
| Early Career Psychologists |           |
| Deborah Weber              | 2007-2010 |
| ANST                       |           |
| John Strang                | 2007-2010 |
| Newsletter                 |           |
| Michael McCrea             | 2008-2011 |

## President's Message

Thanks to all of you who allocated your apportionment ballots to the division last fall. We gained 160 votes and .26% points over last year. Unfortunately, we are still 588 votes down from 2006 and we fell just 264 votes short of picking up an additional council seat. Divisions 3, 18, 32, 35, and 50 picked up one additional seat each, while Divisions 39 and 43 each lost a seat. California, Illinois, and New Jersey each lost a seat. Please begin preparing now to give this your attention next fall. You may be inclined to split your votes between our division and state associations but apportionment math suggests that in nearly all states, you are wasting those votes given to state associations. Since state associations are automatically given 1 seat and it takes approximately 5000 votes to get another, many states don't have sufficient concentrations of voting psychologists to add more seats. In fact Pennsylvania and New York are the only states to have more than one seat. So next fall, give all your votes to Division 40. But mostly importantly, if you have not bothered to vote in the past, then VOTE. Be one of the 27 people that can get us one additional seat on the APA Council of Representatives but giving us your 10 apportionment votes. We continue to need to strengthen our voice in the council to assure that neuropsychology issues are well heard and supported.

One such issue that council representatives will be hearing is the renewal of the model license act. The Board of Professional Affairs has asked for public comment on their proposed revision. On behalf of the Division 40 Executive Committee I forwarded to the BPA the commentary immediately below:

*"Dr. Bufka,*

*On behalf of the Division of Clinical Neuropsychology (D40) I would like to express my thanks for the efforts that went into updating the Model Act for State Licensure. This Model Act clearly reflects the progress that has been made in the field and practice of psychology since 1987.*

*The D40 executive committee strongly supports the substantive changes to the document including provisions in section J 3 that define the practice of school psychology as a doctoral level enterprise.*

*Because modern training for health service providers is often completed in a post-doctoral fellowship or residency we ask that the following edit be made to Section B subpart 5a.*

*2) Having completed an internship and supervised experience (often a post-doctoral residency) in health care settings...*

*Certain states have moved to restrict the use of psychological technicians and in so doing have threatened public access to efficient and*

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| Past issues of the Division 40 Newsletter and<br>Division 40 Executive Committee meeting minutes<br>are now available online at the Division 40<br>Website. The URL address is:<br><a href="http://www.div40.org/">http://www.div40.org/</a> . |    |

**From the Editor**

Welcome to the new age of Newsletter 40! Many of you are likely reading this copy of the Newsletter on your computer screen in its first-ever electronic form. Some of you who still like the feel of pages turning may choose to print out a hard copy for your reading pleasure at the beach, during travel *or even in that single-seat capacity room in everyone’s house where critical reading often takes place.* Either way, we hope this new electronic format and delivery system for the Newsletter meet the needs of all Division 40 members. For those who do not use email but have access to a computer, PDF copies of each Newsletter will be archived for immediate access, 24/7, at [www.div40.org/newsletter.html](http://www.div40.org/newsletter.html). As noted previously, this transition will not only streamline the production of the Newsletter, save significant costs, and make for a more environmentally-friendly product, but also enable us to make further enhancements to the Newsletter’s content and appearance in the future.

I am very pleased with our showcase of feature articles in the current issue of Newsletter 40, focusing on the vital role that neuropsychologists are playing in providing assessment and treatment services for those men and women serving in the U.S. military and affected by traumatic brain injury during the current conflicts in Iraq and Afghanistan. Three articles are featured, each with a slightly different perspective on the topic, and all relevant to the practicing neuropsychologist in any setting. Dr. Heather Belanger reports on neuropsychological outcomes after TBI in a military population and Dr. Lou French then looks at the issue of postconcussion syndrome in military veterans. Finally, Dr. Rodney Vanderploeg describes the comprehensive model of care assembled by the Veterans Health Administration (VHA) and Department of Defense (DoD) to address assessment and treatment needs associated with mild TBI. Once again, the work presented in these three feature articles showcases the role that neuropsychologists play everyday in improving the lives of people affected by neurologic injury and disease.

You will also find many other updates important to Division 40 in the current issue. So, go ahead and read (or scroll) away!

Thank you for your continued support of Division 40.

Sincerely,  
Michael McCrea, Ph.D., ABPP-CN  
Editor, Newsletter 40

## 2009 Division 40 Program Schedule\*

### Thursday, August 6, 2009

- 7:00 – 10:50 Executive Committee Meeting (Dr. Smith)
- 11:00 – 12:50 Fellows' Addresses (Dr. Baron)
- 1:00 – 1:50 Invited Address: Dr. Gordon Winocur, "*The hippocampus and memory: Consolidation or transformation?*" (Introduction: Dr. Woods)
- 2:00 – 2:50 Invited Address: Dr. Donald Stuss, "*Theory-driven rehabilitation for frontal lobe functions*" (Introduction: Dr. Smith)
- 3:00 – 3:50 Invited Address: Dr. Adele Diamond, "*Prefrontal Cortex and Developmental Neuropsychology: Practical Relevance of What We Know About Genetic and Environmental Influences on Prefrontal Cortex*" (Introduction: Dr. Shear)
- 3:00 – 3:50 Symposium: "*The what, when, and how of the Wechsler General Ability Index*" (Drs. Zhu, Raiford, Coalson, Saklofske)

### Friday, August 7, 2009

- 8:00 – 9:50 Symposium: "*Becoming a Clinical Neuropsychologist: Graduate School to Board Certification*" (Drs. Strang, Weber, Slomine, Donders, James, Spiegler)
- 9:00 – 9:50 Invited Address: Dr. Ralph Benedict, "*Gray matter disease in Multiple Sclerosis and its neuropsychiatric consequences*" (Introduction: Dr. Rivera-Mindt)
- 11:00 – 11:50 Committee Meeting: Women in Neuropsychology Subcommittee
- 12:00 – 2:50 Convention Within the Convention: "*Post-Traumatic Stress Disorder: Building bridges between neuroscience and the clinic*" (Dr. Fruitiger et al.)
- 2:00 – 2:50 Invited Address: Dr. Alexander I. Tröster, "*Deep brain stimulation: Emerging neurologic and psychiatric applications*" (Introduction: Dr. Hammeke)
- 3:00 – 4:50 Division 40 Poster Session (I and II)
- 5:00 – 5:50 Invited Address: Dr. Robert Bilder, "*Neuropsychiatric phenomics: Towards a new neuropsychology*" (Introduction: Dr. Bieliauskas)
- 5:00 – 5:50 Invited Address: Dr. Sandra E. Black, "*Alzheimer's and cerebrovascular disease: A conspiracy against the golden years*" (Introduction: Dr. Bobholz)

### Saturday, August 8, 2009

- 10:00 – 10:50 Invited Address: Dr. Bruce Crosson, "*Can brain structures be targeted for rehabilitation by cognitive strategies? Lessons from aphasia therapy*" (Introduction: Dr. Belanger)
- 11:00 – 11:50 Invited Address: Dr. Joseph Ricker, "*Functional neuroimaging after brain injury*" (Introduction: Dr. Morgan)
- 12:00 – 12:50 Division 40 Poster Session (III)
- 12:00 – 12:50 Convention Within Convention: Dr. Linda Bartoshuk, *Famous Psychologists*
- 1:00 – 1:50 Invited Address: Dr. M. Douglas Ris, "*The not-so-benign impact of pediatric low grade brain tumors: Recent and emerging evidence of neurobehavioral risk*" (Introduction: Dr. Donders)
- 3:00 – 3:50 Division 40 Presidential Address (Dr. Smith)
- 4:00 – 4:50 Division 40 Business Meeting (Dr. Smith)
- 5:00 – 6:50 Joint Division 40/22 Social Hour

**Sunday, August 9, 2009**

- 8:00 – 8:50 Division 40 Grants Program: Dr. Brianne Bettcher, “*Empirically-based interventions for error monitoring deficits in dementia*”
- 8:00 – 8:50 Symposium: “*Neuropsychological perspectives on the treatment of the female client*” (Dr. Fletcher-Janzen et al.)
- 8:00 – 9:50 Symposium: “*Cognition and functional performance: Innovations in rehabilitation practice*” (Drs. Gillis, Schultheis, Giovannetti, Ricker, Chute)
- 9:00 – 9:50 Symposium: “*The assessment and rehabilitation of blast-related traumatic brain injury*” (Drs. Mouratidis and Cicerone)
- 9:00 – 9:50 Invited Address: Dr. Martha Denckla, “*Learning Disabilities and Attention-Deficit/Hyperactivity Disorder: Neither Separate Nor Equal*” (Introduction: Dr. Rey-Casserly)
- 10:00 – 10:50 Invited Address: Dr. David Kareken, “*In the nose and out the brain: fMRI and PET studies of alcohol’s chemical sense cues and what they reveal about alcoholism risk*” (Introduction: Dr. Woods)
- 10:00 – 10:50 Workshop: “*NIH grant workshop for junior investigators*” (Dr. Evans)
- 11:00 – 11:50 Division 40 Student Poster Awards
- 11:00 – 12:50 Symposium: “*Manganese health effects in welding: Scientific investigation addressing the controversy*” (Dr. Bowler et al.)
- 12:00 – 12:50 Division 40 Blue Ribbon Awards
- 1:00 – 1:50 Discussion: “*Division 40 Ethnic Minority Affairs Subcommittee careers in neuropsychology: A panel discussion*” (Drs. Schultheis and Byrd)

\* Note that, this schedule is subject to change. Attendees are encouraged to confirm session dates, times, and locations in the final APA Convention program.

**APA Division 40  
Program Committee Members 2008-09**

Steven Paul Woods, Psy.D. 2009 Chair  
Heather G. Belanger, Ph.D. 2009 Co-Chair

James H. Baños, Ph.D.  
Rishi Bhalla, Ph.D.  
Thomas G. Bowers, Ph.D.  
Adam Brickman, Ph.D.  
Paul T. Cirino, Ph.D.  
Dennis Combs, Ph.D.  
John DenBoer, Ph.D.  
Sally Frutiger, Ph.D.  
Tania Giovannetti, Ph.D.  
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Robert D. Jones, Ph.D.

Eric Larson, Ph.D.  
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Emily Richardson, Ph.D.  
Douglas Whiteside, Ph.D.  
Christina Wilson, Ph.D.  
Brian P. Yochim, Ph.D.  
Tricia Zawacki King, Ph.D.

## Neuropsychological Outcomes Following Traumatic Brain Injury: A Closer Look at Military Populations

Heather G. Belanger, PhD, ABPP-CN  
James A. Haley Veterans' Hospital, Tampa, Florida  
University of South Florida Departments of Psychology  
Defense and Veterans Brain Injury Center

### I. Background – Current Conflicts and Resulting Injuries

Recent conflicts have increased the likelihood of being exposed to high energy blasts and explosions. Currently in Operations Enduring Freedom and Iraqi Freedom (OEF/OIF) upwards of 78% of combat injuries are the result of explosive munitions (Owens et al., 2008). Common injuries in multiple combinations include open wounds, traumatic amputations, brain injuries, spinal cord injuries, eye injuries, musculoskeletal injuries, and mental health problems. The term “polytrauma” has been introduced to describe this more complex type of patient and encompasses injuries to more than one physical region or organ system, one of which may be life threatening, and which results in physical, cognitive, psychological, or psychosocial impairments and functional disability. Traumatic brain injury (TBI) has been identified as the “signature injury” of these conflicts. During the Vietnam War, approximately 12-14% of all combat injured had sustained a TBI, while the numbers appear to be closer to 22% for the recent conflicts in Iraq and Afghanistan.(Okie, 2005)

### II. Neuropsychological Outcomes

There is some question as to whether cognitive outcomes following TBI may differ in military and veteran populations, as compared to civilian TBI, due to the unique factors surrounding war-related injury. Because the majority of TBI is mild in severity (mTBI) and because of the controversy even within the civilian literature surrounding mTBI, most of the discussion has centered on mTBI.

Being injured via an explosion or other event in a combat zone can obviously be an emotionally-charged event. Given such circumstances, particularly when reconstructed from memory months later, it is difficult to know whether any reported “alteration” in consciousness is due to a brain concussion, adrenaline rush, emotional trauma, pain related to other bodily injuries, or some other cause. It is also difficult to determine if any remotely reported *loss* of consciousness was truly a loss of consciousness or rather an alteration of consciousness during which new memories were not consolidated because of post-traumatic disorientation. Mental health comorbidities are common in this patient population including PTSD, depression, anxiety, and somatoform disorders. PTSD, for example, has an estimated prevalence of 13 to 17% (Hoge et al., 2004; Hoge, Terhakopian, Castro, Messer & Engel, 2007) compared to 5% pre-deployment.(Hoge et al., 2004) These mental health conditions may well be accounting for symptom complaints and clinical presentation.

Comorbidities are a challenge when evaluating and/or treating a patient with mTBI. In terms of neuropsychological functioning, deployment itself can impact performance on neuropsychological measures.(Vasterling et al., 2006) Furthermore, PTSD can adversely impact performance on neuropsychological tests. Various studies have demonstrated PTSD-associated deficits on measures of attention, working memory, learning, and premorbid estimates of intelligence.(Vasterling, Brailey, Constans & Sutker, 1998; Vasterling et al., 2002) These deficits appear even in those diagnosed many years prior and are attributed to frontal-limbic circuitry dysfunction.(Friedman, Charney & Deutch, 1995; Vasterling et al., 1998; Vasterling et al., 2002)

In addition to PTSD, many other factors that tend to co-occur with mTBI can complicate both assessment and treatment, including preexisting stress and social difficulties, learning disabilities, history

of previous neurologic or psychiatric disorders, and preinjury alcohol or drug abuse. These factors then complicate the clinical picture and make it difficult to know which issues to address first when formulating a treatment plan.

There have been a few studies that suggest subtle long-term symptoms from sustaining a mild TBI and/or objective evidence of continuing mild physical or cognitive difficulties, such as gait and balance difficulties or difficulties with sustained attention. (Vanderploeg, Curtiss & Belanger, 2005; Vanderploeg, Curtiss, Luis & Salazar, 2007) However, the vast body of existing research clearly indicates that most patients who have a history of a mild TBI will perform normally on cognitive measures by 30 days post-injury. (Binder, Rohling & Larrabee, 1997; Schretlen & Shapiro, 2003; Belanger, Curtiss, Demery, Lebowitz & Vanderploeg, 2005) Indeed, within the civilian literature, five independent meta-analytic studies have essentially concluded that as the time post-injury increases, the cognitive sequelae decrease and essentially reach zero by 3 to 12 months post-injury. Again, there is question as to whether these findings generalize to military and veteran groups.

### **A. Are long-term cognitive sequelae different in a post-combat population?**

While published studies at this point are scarce, existing data suggest that mTBI associated with OEF/OIF is no different, in terms of long-term cognitive sequelae, than civilian mTBI. So, Vasterling et al. (Vasterling et al., 2006) found that having a history of mTBI did not significantly affect neuropsychological performance in their sample of 600+ participants tested before and after deployment to Iraq. Similarly, there were no differences on cognitive measures between those with a history of mild TBI and those without mTBI in 123 OEF/OIF patients with burns due to explosives (Mercado-Couch, Cooper, Critchfield, Kennedy & Gaylord, 2008). Finally, Ivins et al. (Ivins, Kane & Schwab, 2009) recently published data from their sample of 956 OEF/OIF returning soldiers and found no differences on the ANAM between those with a history of deployment-related mTBI and those without mTBI. These individuals were assessed up to two years after sustaining the

mTBI. All published studies therefore come to the same conclusion – that there are no long-term cognitive sequelae (at least as it is typically measured), on average, associated with mTBI even when the mTBI is sustained in combat.

In terms of moderate to severe TBI, there are no published studies comparing neuropsychological outcomes between post-combat TBI and civilian TBI. Certainly, there is a higher rate of TBI in the military, even during times of peace. (Ommaya, Ommaya, Dannenberg & Salazar, 1996) Compared to those Servicemen not injured in battle, those injured in battle tend to sustain more severe TBIs (Galarneau, Woodruff, Dye, Mohrle & Wade, 2008). Also, incidence of penetrating TBI increases during times of war.

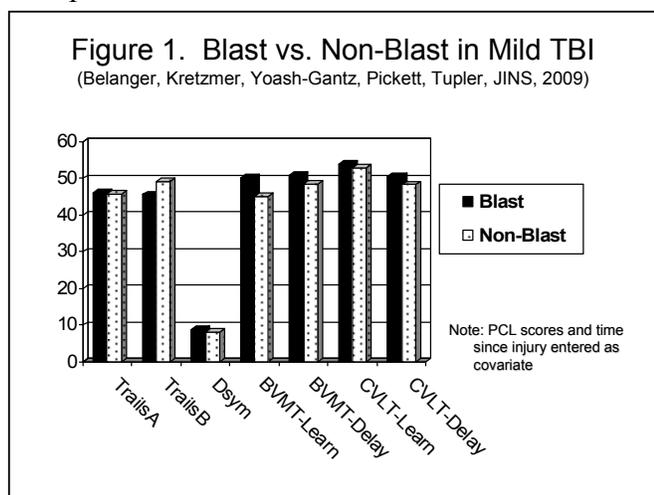
### **B. What about mechanism of injury?**

In addition to the supposition that military-related mTBI might be somehow different, in terms of long-term neuropsychological outcomes than civilian mTBI, there is also some question as to whether varying mechanisms of injury might have differential cognitive effects. It is well known that the majority of combat-related injuries in the current conflicts are due to explosive munitions. As such, there has been much speculation about blast-induced cognitive changes.

Our understanding of how close proximity to an explosion affects the brain is limited. An explosive blast, with its over-pressurization or primary blast wave, is clearly a different mechanism of injury than an acceleration-deceleration injury, such as striking one's head against the dashboard of a car. It is unclear if close proximity to a primary blast wave is sufficient to cause damage to the brain. Studies conducted on animals using air-driven shock tubes suggest that this is possible. (Kaur et al., 1995; Cernak, Wang, Jiang, Bian & Savic, 2001) Such damage shows correlation with performance on cognitive tasks (Cernak et al., 2001). However, it is difficult to ascertain how these findings translate to humans in terms of injury severity. Also, injury due solely to primary blast is very unlikely in humans. The blast wave tends to result in other injuries, called secondary, tertiary, and quaternary injuries that are mechanical-type injuries. For example, flying debris and projectiles

(secondary), body displacement (tertiary), and/or crush injuries (quarternary) are all possible.

Very little is known about the cognitive sequelae of blast-related brain injuries in humans. The existing TBI literature was created almost exclusively using data from patients having sustained TBIs from blunt force trauma, such as those resulting from MVAs. Sayer et al. (Sayer et al., 2008) found that mechanism of injury did not predict outcomes such as changes in motor or cognitive functioning as measured by the Functional Independence Measure (FIM). Likewise, on neuropsychological measures, severity of injury is more predictive of neuropsychological functioning than is mechanism of injury. (Belanger, Kretzmer, Yoash-Gantz, Pickett & Tupler, 2009) In Figure 1 below, 61 patients with blast-related TBI are compared on neuropsychological measures to 41 patients with non-blast TBI.



### III. Future Research

#### A. Multiple Concussions

Many Servicemen and women are sustaining multiple mTBIs. The impact of multiple concussions is still largely unknown. A recent study of the Navy-Marine Corps Combat Trauma Registry revealed that battle-injured were more likely than those injured outside of battle to have multiple TBI (Galarneau et al., 2008). Most of the scientific literature on multiple concussions comes from the sports arena. There are inconsistent reports regarding adverse long-term effects of having two or more concussions. For instance, while some studies have found adverse long-term effects on

cognitive performance (Collins et al., 1999; Moser & Schatz, 2002; Moser, Schatz & Jordan, 2005; Wall et al., 2006), others have not (Gaetz, Goodman & Weinberg, 2000; Macciocchi, Barth, Littlefield & Cantu, 2001; Pellman, Lovell, Viano, Casson & Tucker, 2004; Iverson, Brooks, Collins & Lovell, 2006; Iverson, Brooks, Lovell & Collins, 2006). Furthermore, some studies have found that athletes with two prior concussions recover more slowly from a concussion (Guskiewicz et al., 2003), while other studies find no such relationship between recovery time and prior concussion history (Iverson, 2007). Notably, studies to date have not examined psychological variables and have relied exclusively on samples of athletes. Further, most studies investigating the effects of single or multiple concussions have been retrospective investigations using posttest-only designs. Those studies that have found adverse effects associated with multiple concussions have found these effects on tests of attention, executive functions, psychomotor speed and total symptoms reported.

### III. Summary

Mild TBI, particularly as a result of blast explosions, is unfortunately too common among our OEF/OIF Servicemen and women. There is some question as to whether cognitive outcomes following TBI may differ in military and veteran populations, as compared to civilian TBI, due to the unique factors surrounding war-related injury. The data to date largely suggest that cognitive outcomes are similar. More research is needed, however, particularly with regard to the effects of sustaining multiple concussions.

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## Postconcussive Syndrome in a Military Population

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### Introduction

Current conflicts in Iraq and Afghanistan have raised public awareness around issues of posttraumatic stress disorder (PTSD) and traumatic brain injury (TBI) in the military population. Of those medically evacuated from Iraq or Afghanistan, 25% have suffered injuries to the head or neck (Xydakis, Fravell, Nasser, & Casler, 2005). Defense and Veterans Brain Injury Center (DVBIC) sites have seen 9,609 Service Members with traumatic brain injury (TBI) (1/1/2003-3/31/2009), but those numbers reflect only those seen at a relatively limited number of sites. While the number includes most of those with more moderate to severe TBI the exact numbers of those with mild TBI is unknown. Military efforts at screening the larger group (non-medically evacuated) of deployed Service Members for mild traumatic brain injury (mTBI) during deployment suggest that as many as 10-20% may have suffered a concussion during their time deployed. Terrio et al. (Terrio et al., 2009) reported a 22.9% positive rate of TBI (mild) in a Brigade Combat Team evaluated as they redeployed to the United States. In that sample, those with TBI were significantly more likely to report post-injury and post-deployment somatic and/or neuropsychiatric symptoms than those without this injury history.

Most of those that sustain mTBI on the battlefield will have time-limited symptoms, but the short-term expressions such as slowed reaction time, headache, dizziness, or inattention may have implications for combat effectiveness and/or troop welfare. Realization of that fact among line commanders has facilitated the military's significant efforts to screen for mild TBI on the battlefield, and there is widespread use of the military acute concussion evaluation (MACE) (French, McCreary, & Baggett, 2008) and standardized DoD clinical practice guidelines around management of mTBI. On a postdeployment basis, questions have been added to the post deployment health assessment (PDHA) to screen for concussion sustained while deployed, among a number of other deployment related conditions. This screening was initiated under the assumption that it was better not to miss anyone who may have been injured. However, the screening process has not been without controversy. In a recent editorial, Hoge and colleagues (Hoge, Goldberg, & Castro, 2009) stated, "Postdeployment screening is administered within a structure of care encompassing communication, treatment, and disability initiatives — influenced by definitional issues — all of which are likely to promote negative expectations for recovery. Multiple studies have shown that expectations exert a powerful effect on the persistence of symptoms after concussion (p.1589)." The authors go on to state, "Debate over the nature of postconcussive symptoms and their relationship to PTSD clouds treatment strategies. Postconcussive symptoms, not the mild TBI itself, overlap with numerous illnesses, including postwar health conditions that have been described for centuries. The current emphasis on attributing postwar "postconcussive" symptoms to one of two potentially stigmatizing diagnoses — mild TBI or PTSD — reflects a lack of understanding that the strategies most likely to be effective are evidence-based treatments for functional somatic symptoms (p. 1591)."

### **Polytrauma and Comorbid Conditions**

The most frequent cause of injury, explosive devices, has some relevance for the symptom presentation. Approximately 2/3 of Army war zone evacuations are due to blast (Warden, 2006). One report found that 88% of injuries seen at a medical treatment facility in theater were due to blast (Murray et al., 2005). In a sample at Walter Reed Army Medical Center, those with TBI related to blast were significantly more likely to have had a skull fracture, seizure, and lower limb amputation than those not injured in a blast. They also were more likely to have symptoms of acute stress than their counterparts who had TBI through other mechanisms (Warden, 2006). In an examination of the patients in the VA polytrauma system (Sayer et al., 2008) (in which 56 percent of those injured had blast-related injuries), the pattern of injuries was different among those with injuries due to blasts, with soft tissue, eye, oral and maxillofacial, otologic, penetrating brain injuries, symptoms of post-traumatic stress disorder, and auditory impairments more common in blast-injured patients than in those with war injuries of other etiologies.

Polytrauma patients, even without brain injury, have high rates of neurobehavioral symptoms, including memory difficulties, irritability, mood swings, suspiciousness, amotivation, and guilt (Frenisy et al., 2006). Minimal extracranial injuries and low pain predict better outcomes for return to work after mTBI (Stulemeijer et al., 2006). In a civilian group of individuals who sustained mTBI and who also suffered extracranial injuries, at six months after injury, 44% of the patients with additional injuries were still in treatment, compared to just 14% of the patients with isolated mTBI. They also had resumed work less frequently and reported more limitations in physical functioning. Those individuals who required continued treatment also reported significantly more severe postconcussive symptoms.

There is wide range of injuries in the polytrauma population, any of which may have implications for recovery. In an amputee population in general, and representative of the war-injured population, younger men have more difficulties in adjusting to amputations, presumably due to concerns over body image, social stigma, or other

related factors (Rybarczyk, Nyenhuis, Nicholas, Cash, & Kaiser, 1995). These concerns may contribute to the high rates of self reported sexual problems in those with lower extremity amputations (Bodenheimer, Kerrigan, Garber, & Monga, 2000). Sensory difficulties in this population are another area of concern. In a group of polytrauma patients injured by blast (Goodrich, Kirby, Cockerham, Ingalla, & Lew, 2007) the rates of visual impairment were more than double compared to other causes of polytrauma (i.e., motor vehicle accidents, gunshot and/or shrapnel, assault, falls, or anoxia). Overall, the rate of visual impairment in blast-related injury was 52% compared with 20% for all other sources of injury. In a group of patients at Walter Reed (Weichel, Colyer, Bautista, Bower, & French, 2009) with TBI and combat ocular trauma (COT), explosive fragmentary munitions accounted for 79% of TBI-associated COT. Severe TBI was more frequently associated with COT than milder TBI. Overall, TBI occurred in two thirds of all COT and ocular trauma was a common finding in all TBI cases. Lew and colleagues (Lew, Jerger, Guillory, & Henry, 2007) examined a group in a VA polytrauma center. In those injured by blast since the beginning of the war in Iraq, 62% complained of hearing loss and 38% reported tinnitus, sensorineural loss being the most prevalent type of hearing loss. This compares to rates of 44% with hearing loss and 18% with tinnitus in those injured through some mechanism other than blast.

Psychological conditions are also of concern. In general, the presence of a depressive or anxiety disorder is associated with greater overall utilization of health care resources (Simon, Ormel, VonKorff, & Barlow, 1995). In the injured, psychological health affects recovery from physical trauma (Holbrook, Anderson, Sieber, Browner, & Hoyt, 1999; Michaels et al., 2000). Of particular concern in a combat-exposed population is PTSD. Hoge and colleagues (Hoge et al., 2004) in their survey of four U.S. combat infantry units showed that those who had been deployed to Iraq reported a very high level of combat experiences, with more than 90 percent of them reporting being shot at and a high percentage reporting handling dead bodies, knowing someone who was injured or killed, or killing an enemy combatant. The percentage of

individuals whose responses met the screening criteria for major depression, PTSD, or alcohol misuse was significantly higher among soldiers after deployment than before deployment. The prevalence of PTSD increased with the number of firefights during deployment with increases to 19.3 percent for those involved in more than five firefights. Most importantly, in this group the rates of PTSD were significantly associated with having been wounded or injured. In those Service Members seriously enough injured to be medically evacuated and hospitalized at Walter Reed Army Medical Center (WRAMC), slightly over four percent had PTSD and/or depression at one month. These rates increased to 12.2 percent for PTSD and 8.9 percent for depression at four months. At seven months these rates were 12 percent and 9.3 percent respectively. High levels of self-reported physical problems at one month post injury were significantly predictive of PTSD and depression at seven months post injury (Grieger et al., 2006). Koren, and colleagues (Koren, Norman, Cohen, Berman, & Klein, 2005) in a study of injured Israeli war Veterans, found that bodily injury is a risk factor for PTSD, with odds of developing PTSD following traumatic injury about eight times higher than a group that suffered significant emotional trauma without associated physical trauma.

### **Postconcussive Disorder**

The World Health Organization in their 2004 review of the literature on the prognosis after mTBI (Carroll et al., 2004) reported that cognitive deficits and symptoms were common in the acute stage after injury but that these symptoms were typically transient with resolution in days to weeks post injury in the vast majority of patients. For the small minority with persistent symptoms a range of demographic, psychosocial, and situational factors have been identified in different studies. Relevant to this discussion, this analysis of the existing literature was largely based on a civilian population. As described above, the role of polytrauma and the emotional context in which the injuries were received may play a role in overall recovery. These factors should be considered in the individual assessment of any Service Member with mTBI and in a setting such as a military tertiary

care center or VA polytrauma rehabilitation center with high rates of polytrauma.

Nonetheless, many of the issues relevant to the civilian population with mTBI may also be applicable in the military population. As postconcussional symptoms are largely not specific, they may be related to other medical conditions, the stresses of deployment, or other emotional factors. Hoge and colleagues (Hoge et al., 2008) in a survey of OIF Veterans reported in those with TBI and loss of consciousness, 43.9% met criteria for post-traumatic stress disorder (PTSD). Soldiers with mTBI were significantly more likely to report poor general health, missed workdays, medical visits, and a high number of somatic and postconcussive symptoms than were soldiers with other injuries. However, after adjustment for PTSD and depression, mTBI was no longer significantly associated with these physical health outcomes or symptoms, except for headache. As in the civilian population (Wang, Chan, & Deng, 2006), cognitive complaints may not be directly related to objective performance and may be more related to mood or other factors.

Service Members with injuries may be placed in the disability system. Studies of mTBI have demonstrated the effect of external incentives on cognitive performance in the past (Belanger, Curtiss, Demery, Lebowitz, & Vanderploeg, 2005; Binder & Rohling, 1996). The question has been raised whether the TBI screening process has iatrogenic effects. Such screening for mild TBI in the military healthcare system is intended to identify individuals with difficulties. As part of the standard in the injured population at Walter Reed and those sites where mild TBI is identified through the PDHA, the Service Member is given education around typical symptoms and recovery with the goal of encouraging the mindset of expectancy of recovery. Such interventions have been shown to be effective in reducing longer-term morbidity (Ponsford et al., 2002). In those individuals that expect to have post injury problems, as perpetuated by seemingly well-meaning clinicians or misguided educational campaigns, such symptoms may be more likely to occur in minority of individuals (Mittenberg, DiGiulio, Perrin, & Bass, 1992).

## Conclusions

Experience gained in assessment and treatment of individuals with mild TBI in a civilian population provides an important framework for our understanding of those individuals who suffer mTBI on the battlefield. There may be some important differences however that should be understood in order to gain a full picture of this population. These include high base rates of PTSD and mood disorders related to deployment, the possibility for significant comorbid extra-cranial injuries related to blast as an injury mechanism, as well as other possible contextual factors. A thorough evaluation of the Service Member who sustained a mTBI on the battlefield should include a thorough evaluation of the physical factors affecting recovery including pain, sensory dysfunction, and vestibular dysfunction; emotional factors including PTSD, mood changes, concerns about physical disfigurement, and related issues; and symptoms related to the TBI itself. The clinical picture may be complicated, with various issues interacting to cause persistent dysfunction beyond the period they would typically be expected for recovery in an uncomplicated injury.

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## The VHA and DoD Systems of Care for Mild TBI

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Since October 2001, approximately 1.64 million U.S. troops have been deployed to Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF) in Afghanistan and Iraq, and a significant number have had multiple deployments. The Veterans Health Administration (VHA) and the Department of Defense (DoD) have developed innovative approaches to the identification, assessment, and treatment of traumatic brain injury (TBI) for military personnel involved in conflicts. This article will briefly review these developments.

### **The Veterans Health Administrative Polytrauma System of Care**

VHA has developed a nationwide integrated system of care designed to provide access to life-long rehabilitation services for veterans and active duty service members recovering from polytrauma and TBI. This TBI/Polytrauma System of care has tiered levels of care with four overall components and is described in detail by Sigford (2008).

The first component of Polytrauma care is the network of four Polytrauma Rehabilitation Centers (PRC) (Tampa, Florida; Minneapolis, Minnesota; Palo Alto, California; Richmond, Virginia). A fifth PRC is planned for San Antonio, Texas. These centers provide acute medical and rehabilitation care in programs accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF) for both TBI and Comprehensive Rehabilitation. Clinical care is provided by a dedicated interdisciplinary staff of rehabilitation specialists and medical consultants with expertise in the treatment of the physical, emotional, behavioral and psychosocial problems that accompany polytrauma and TBI. Each PRC also has a Polytrauma Transitional Rehabilitation Program (PTRP). PTRPs are non-hospital-based resident treatment programs for the post-acute phase of rehabilitation and focus on community re-integration, independence in complex instrumental activities of daily living, and include work trials for those patients able to participate.

The second component of Polytrauma care is the Polytrauma Network Sites (PNS). These were designated in December 2005, with one PNS located within each of VHA's 21 regional Veterans Integrated Service Networks (VISN). PNS programs provide post-acute rehabilitation care for individuals with polytrauma/TBI, including, but not limited to inpatient and outpatient rehabilitation and vocational rehabilitation programs. They are responsible for coordinating access to VHA and non-VHA services across the VISN to meet the needs of patients recovering from polytrauma and TBI, and their families. The PNSs consult and collaborate with PRCs in transitioning care from the acute rehabilitation setting to community re-integration efforts.

The Polytrauma System of Care network was expanded in March, 2007, to include Polytrauma Support Clinic Teams (PSCT). PSCTs are geographically distributed across the VHA and facilitate access to specialized rehabilitation services for veterans and active duty service members at locations close to their home communities. These interdisciplinary teams of rehabilitation specialists are responsible for managing the care of patients with treatment plans, providing regular follow-up visits, and responding to

new treatment issues as they arise. The PSCT consults with the affiliated PNS or PRC when more specialized services are required. The remaining VHA medical centers have a designated Polytrauma Point of Contact who is responsible for managing consultations for patients with polytrauma and TBI, and referring these patients to appropriate programs capable of providing necessary services.

### **Case Management System and Family Support**

Patients identified through this VHA system of care receive ongoing case management beginning at the military treatment facility and continuing through VHA hospitalization or outpatient care and on return home. This case management is conducted by teams of nurses for clinical case management and social workers for psychosocial case management. As patients move through the Polytrauma System of Care, case managers are responsible for a smooth transition to the next phase of care. This transition includes personal communication with the receiving treatment team, often using videoconferencing. A Polytrauma Telehealth Network allows the PRCs and PNSs to communicate using high-quality videoconferencing in order to facilitate discharge, coordination of care, and evaluation for treatment planning. Telehealth technology also links providers and patients at military treatment facilities with the PRCs. This has been an invaluable tool in coordination of care and facilitating smooth transition from one facility to another.

Services are offered to families in the form of support groups, care management, and assistance with travel and lodging. All four PRCs have a Fisher House on site which provides an independent living apartment environment for families of patients who often require long lengths of rehabilitation inpatient care.

Families are seen as treatment team members, particularly in the inpatient setting at PRCs where they have 24 hour access to their assigned case manager as well as access to active-duty military personnel who assist with the transition to VHA facilities.

### **VHA TBI Identification, Assessment, and Treatment Planning**

#### **VHA TBI Clinical Reminder**

In order to ensure identification of service members potentially needing medical services following deployment to Iraq or Afghanistan, the

VHA implemented a series of OEF/OIF clinical reminders (i.e., mandated clinical questions to ask the veteran, prompted by the electronic chart). A TBI Clinical Reminder was incorporated into the system in April 2007. Other clinical reminders include screens for PTSD, depression, alcohol abuse, and infectious diseases endemic to Southwest Asia. These Clinical Reminders are completed by any provider within the VHA system of care who first encounters that patient, most frequently a primary care provider.

The TBI Clinical Reminder is completed if the veteran served in Iraq or Afghanistan after September 11, 2001. It consists of four questions: (1) Did you have any injury(ies) during your deployment from any of the following? (check all that apply: fragment, bullet, explosion, etc.), (2) Did any injury you received while deployed result in any of the following? (check all that apply: being dazed, confused, or "seeing stars", not remembering the injury, losing consciousness, head injury, etc.), and (3) Did any of these begin or get worse afterwards? (check all that apply: dizziness, headaches, memory problems, balance problems, ringing in the ears, irritability, sleep problems), and (4) In the past week, have you had any of the above symptoms? (check all that apply: dizziness, memory problems, etc.). A positive response to *all* four questions constitutes a positive screen. Positive screens automatically generate a consult to a TBI specialist or specialty clinic if the veteran agrees to further assessment or care. This specialist/clinic has one week to initiate contact with the patient to schedule a more detailed follow-up evaluation.

#### **VHA Comprehensive TBI Evaluation**

Following a positive TBI Clinical reminder, veterans are referred on for a more comprehensive evaluation called the TBI Secondary Evaluation. This evaluation is to be completed by TBI physician experts and/or interdisciplinary polytrauma/TBI rehabilitation teams throughout the components of the Polytrauma System of Care, but typically within outpatient PNS programs. The purposes of the follow-up evaluation are to: 1) confirm the diagnosis of TBI, even if the presenting symptoms are felt to be secondary to other factors such as PTSD, stress, depression, or chronic pain, and 2) institute an appropriate plan for follow-up care (e.g., other evaluations, or diagnosis-based or symptom-based treatment).

#### **VHA TBI Treatment Algorithms**

A VHA TBI Treatment Algorithm has been developed to help the clinician develop a plan of care, and treat the symptom complex identified through the secondary evaluation. The menu of treatment recommendations may also provide clinicians at PNS and PSCT sites guidance regarding when to refer to the next highest level of care (e.g., PRC). Providers are also encouraged to consult the newly completed VHA/DoD Mild TBI Clinical Practice Guideline ([www.warrelatedillness.va.gov/provider/tbi/VADoD-CPG-concussion-mTBI.pdf](http://www.warrelatedillness.va.gov/provider/tbi/VADoD-CPG-concussion-mTBI.pdf)). Symptom-based treatment might consist of treating specific symptoms such as headaches, back pain, insomnia, fatigue, or memory problems, even if the symptom etiology is not clear (e.g., mild TBI, PTSD, post-deployment adjustment, etc.). Treatment of identified mental health issues might include referral to a PTSD program for comorbid PTSD treatment or a mental health clinic for treatment of a comorbid depressive disorder.

If it is likely that a mild TBI did occur, reassurance and education about expected full recovery is crucial to minimizing any adverse iatrogenic effects. If it is determined that no TBI likely occurred, educating the patient as such is paramount at this stage. Misattribution of symptoms to a residual TBI when such symptoms are secondary to stress, chronic sleep deprivation, PTSD or other mental health condition, for example, could iatrogenically reinforce the misconception that these symptoms are permanent.

### **DoD TBI Pre-deployment Assessment, In-Theater Management, and Post-deployment Assessment**

#### **DoD Predeployment Baseline Neurocognitive Assessment**

In an attempt to better identify individuals who may have sustained a mTBI and have ongoing cognitive problems, the DoD recently instituted a policy whereby Neurocognitive Assessment Testing (NCAT) is completed on all Service members prior to deployment. The Automated Neuropsychological Assessment Metrics (ANAM) is the NCAT currently utilized; it assesses cognitive areas most likely to be affected by mild TBI, including attention, judgment, memory and thinking ability. It is a simple 15 to 20 minute computerized test that records a Service member's cognitive performance. ANAM results will be a part of Service member's medical records. Individual results serve as a baseline for monitoring potential changes in a

Service member's cognitive function. These data will be treated as protected personal health information and kept confidential using encryption technology. Ultimately, the goal is to have the capability to compare assessment results before and after a Service member experiences any event that may result in a concussion, to improve the accuracy of mild TBI screening and proper treatment.

#### **DoD In-Theater TBI Assessment and Management**

The Military Acute Concussion Evaluation (MACE) was developed by the DVBIC and released in Aug 2006 and operationalized in the OEF/OIF deployment environment. Embedded in the MACE is the Standardized Assessment of Concussion (SAC), a widely used, validated, brief cognitive tool. It assesses 4 cognitive domains: Orientation, Immediate Memory, Concentration, and Delayed Recall. The MACE provides a standardized tool for the evaluation of symptoms and cognitive deficits that may follow concussion.

Three clinical practice guideline algorithms were also developed. One is for medics/corpsmen serving without the presence of a general medical officer, serving downrange or perhaps at a battalion aid station. It provides guidance regarding "Red flag" complications and guidance regarding which patients should be observed versus evacuated for further evaluation. A second CPG is designed for Medical Officers and provides guidance on basic medical management, such as how to evaluate and treat a patient (and when to evacuate) and commonly used medications and how to prescribe them. The third CPG was designed to assist comprehensive evaluation of concussion at a Level 3 Facility (major medical center) and provides guidance for more detailed evaluation of patients with persistent symptoms. As with any CPG, these are tools and provide guidance for the clinician. Clinician judgment with regard to evaluation and management should prevail. Of course in a combat environment, operational and tactical considerations may, in some instances, override the CPGs.

#### **DoD Postdeployment TBI Screening and Evaluation Programs**

The DoD instituted Post-Deployment Health Assessment (PDHA) and Reassessment (PDHRA) programs. The PDHA is scheduled with trained health care providers within 30 days after returning to home or to a military processing station. The purpose is to review each service member's current health, mental health, or psychosocial issues commonly associated with deployments, possible

deployment-related occupational and environmental exposures (including TBI which was added in 2008), and to discuss deployment-related health concerns. Positive responses require supplemental assessment and/or referrals for medical consultation. Similarly, the PDHRA is designed to identify and address health concerns, with specific emphasis on mental health, that have emerged over time since deployment. The PDHRA should be completed within the three- to six-month time period after return from deployment, ideally at the three- to four-month mark since many transition occur at 90-120 days.

### Summary

Both DoD and VHA have made substantial efforts to improve their systems of care for service members and veterans who have sustained a TBI/Polytrauma. Both organizations have implemented major initiatives for TBI identification, and subsequent comprehensive assessment and treatment guidelines. The two departments have collaborated on these initiatives, and work hand-in-hand to provide a full spectrum of integrated TBI healthcare across both organizations.

**Acknowledgements:** The research reported here was supported by the Department of Veterans Affairs, Veterans Health Administration (VHA). Further support was provided by the James A. Haley Veterans' Hospital. The views expressed herein are those of the authors and do not necessarily reflect the views of the Department of Veterans Affairs.

Please address correspondence to: Rodney D. Vanderploeg, Ph.D., James A. Haley Veterans' Hospital, Mental Health and Behavioral Sciences - Psychology (116B), 13000 Bruce B. Downs Blvd., Tampa, FL 33612. Tel: 813-972-2000 ext 6728, Fax: 813-903-48 Email: Rodney.Vanderploeg@va.gov

### References

1. Sigford, B.J. (2008). "To care for him who shall have borne the battle and for his widow and his orphan" (Abraham Lincoln): the Department of Veterans Affairs polytrauma system of care. *Archives of Physical Medicine and Rehabilitation*, 89, 160-162.

### President's Message

(Continued from page 1)

*affordable psychological assessment services. For this reason we would respectfully but urgently ask consideration for strengthening the language in section J part 4 of pertaining to psychometrists, a.k.a. psychological technicians or psychological assistants. Specifically we would ask first for the following edit to the first sentence of section J4:*

*Nothing in this act shall be construed to prevent graduate students, interns, unlicensed post-doctoral trainees, **psychological assistants** or applicants for licensure....*

*And to further clarify the role of psychological assistant to we ask you to include the following language in this section:*

**A psychological assistant, typically a person with at least a baccalaureate degree in psychology or a related field, with appropriate training and experience may provide supportive services to a psychologist incidental to, and concurrent with, such psychologist personally performing a service or procedure. Such supportive services may include the administration and scoring of psychological or neuropsychological tests (excluding projective tests) and written behavioral observations during testing under the direct supervision of a psychologist who shall be fully responsible for such tests and care of the patient. Except for the administration and scoring of such tests, nothing in this definition shall be construed to allow a psychological technician to provide any other service which constitutes the practice of psychology as defined in this article.**

*The Board of Division 40 has reviewed and endorsed these proposed amendments. We again thank the Practice Directorate for there efforts on our behalf in updating this important document. We also thank you in advance for due consideration of our proposed edits and additions.*

*Sincerely,  
Glenn Smith PhD  
President  
APA Division 40"*

We would ask you to consider forwarding similar commentary to the BPA at <http://forms.apa.org/practice/modelactlicensure/>

In my next column I will provide you with an update from the Summit on the Future of Professional Practice convening in San Antonio, May 14-16.

## Mental Health and Neurological Disorders in sub-Saharan Africa: Kampala, Uganda – August 4-5, 2009

Paul L. Craig, Ph.D., ABPP-CN  
 Department of Psychiatry and Behavioral Sciences  
 University of Washington School of Medicine

Since living as an exchange student in the Netherlands when I was 18 years old, I have defined myself as a world citizen. Although some would contend that psychology, in general, and neuropsychology, in particular are relevant only in developed economies, I would contend that our profession has much to offer within both the developed and developing worlds. Similarly, those of us working in the United States and other economically advantaged countries have much to learn regarding the ongoing research and application of scientific knowledge currently extant and planned within developing regions of the world. Collaboration with our colleagues worldwide is increasingly important as our scientific knowledge and profession mature.

In this context, I am writing to inform members of Division 40 about an upcoming conference on “Quality of Care Issues for Mental Health and Neurological Disorders in sub-Saharan Africa,” which will be held in Kampala, Uganda on August 4-5, 2009. This international event is a joint project between the Forum on Health and Nutrition of the Uganda National Academy of Sciences and Forum on Neuroscience and Nervous System Disorders of the Institute of Medicine of the U.S. National Academies.

There will be several distinguished scholars and policy makers presenting at this event including Dr. Steve Hyman (Harvard University, USA), Prof Oye Gureje (University of Ibadan, Nigeria), Dr Charles Newton (KEMRI, Kenya), Dr. Vikram Patel (London School of Hygiene and Tropical Medicine, UK), Dr. Harvey Whiteford (University of Queensland, Australia), and Ms. Florence Baingana (Makerere University, Uganda). This international meeting will focus upon critical issues for sub-Saharan Africa. The aim is to identify and discuss potential programs of action that could be implemented in cost-effective and efficient ways that might improve care of neurological, mental, and substance use disorders. Dialogue at the workshop is intended to emphasize the need for national, evidence-based policies addressing quality of care for these disorders. Key areas of emphasis are to:

- Discuss opportunities that can be used to better ensure continuity of care and sustainability within a country’s health care system;
- Identify resources that are presently available or could be made available, in cost-effective and efficient manners, to aide in implementation of treatments and prevention projects;
- Emphasize the need for national, evidence-based policies addressing quality of care and health care systems for neurological, mental, and substance use disorders;
- Discuss how to facilitate collaborations among a variety of stakeholders, including policy makers and health care professionals

If you want further information regarding this meeting or wish to register, please visit the following website: <http://www.iom.edu/CMS/3740/35684/59548.aspx>

Likewise, you can contact Christian Acemah at the Institute of Medicine, The National Academies in Washington, DC for further information regarding involvement with this meeting. Mr. Acemah’s contact information is:

Christian N. Acemah, Senior Program Associate, Board on Global Health, Board on African Science Academy Development, Institute of Medicine, The National Academies, 500 Fifth Street, N.W., Washington, DC 20001, Phone: 202-334-3378, Fax: 202-334-3861. Email: [cacemah@nas.edu](mailto:cacemah@nas.edu)

Unfortunately, the dates of this meeting overlap with prepotent commitments that I have preceding the APA Convention in Toronto in my role as APA's Treasurer. Otherwise, I would definitely attend this meeting. I have spent a total of about four weeks in Uganda during two trips completed during 2006 and 2007. The people of Uganda were consistently gracious, friendly, and cordial. For those of you with an adventuresome spirit who wish to reach out scientifically and professionally beyond the comforts of home, I think this meeting will provide a unique opportunity to make some great contacts and to explore unique research and professional service opportunities.

**Address correspondence to:** Paul L. Craig, Ph.D., ABPP-CN, Associate Clinical Professor, Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine -- WWAMI Program, 4048 Laurel Street, Suite 201, Anchorage, AK 99508; Phone: 907-274-8200; email: pcraig@gci.net

**Women In Neuropsychology (WIN)  
The WINner's Box**

Cheryl Luis, PhD, ABPP-CN  
Women in Neuropsychology (WIN) Committee  
Chair

Women in Neuropsychology (WIN) was established by Division 40 to develop a mentoring system for women. In the years since its inception, the rate of women entering neuropsychology has grown dramatically with more women becoming active in professional leadership roles each year. This trend is exciting indeed. However, women are traditionally reticent to self promote and share with others their accomplishments. As such, WIN is proud to introduce our new program entitled "The WINner's Box." The goal is to engage our members to promote their accomplishments as well as other women in our field. This program is tentatively scheduled to become a regular item in Newsletter 40.



**Dr. Paula Shear**

WIN is proud to highlight Dr. Paula Shear in our inaugural "WINner's Box." Dr. Shear was highly instrumental in the development and growth of WIN. She earned her PhD at the University of California, San Diego in 1991 and completed her pre- and post doctoral training at Brown and Stanford, respectively. Dr. Shear has served as the Secretary for APA Division 40. In 2006, she earned the rank of full professor at the University of Cincinnati. She is an accomplished researcher, earning the 2005 Butters Award from the National Academy of Neuropsychology, and in 2007 was a recipient of the Leading Women of Cincinnati Award, which honors women for their significant accomplishments and contributions to the community. Dr. Shear serves on the editorial board of several peer-reviewed journals. She is the mother of two daughters age 12 and 15. WIN commends Dr. Shear for her ability to balance a family, successful career and professional involvement. She serves as a tremendous role-model for women in our field.

If you would like to highlight your work or that of a colleague, please make your submission to Chris Morrison, Ph.D., ABPP at [chris.morrison@nyumc.org](mailto:chris.morrison@nyumc.org).

## Division 40 Early Career Award

Division 40 is accepting applications for the Early Career Award in Neuropsychology. Eligible candidates are APA member psychologists not more than ten years post doctoral degree, who have made a distinguished contribution to neuropsychology in research, scholarship, and/or clinical work.

**Application requirements:** A letter of nomination and three supporting letters (at least two from nationally-known neuropsychologists familiar with the candidate's work and its impact on the field) should be included along with a copy of (1) a CV, (2) three supporting documents providing evidence of national/international recognition (e.g., major publications, research grants, assessment, clinical, or teaching techniques, treatment protocols), and (3) the candidate's 500-word statement describing professional accomplishments, personal long-term goals, and future challenges and directions in the field of neuropsychology that they wish to address.

**Application procedure:** All materials provided by applicant are to be submitted electronically to Laura A. Flashman, Ph.D., Chair, Div 40 Awards Subcommittee, at [flashman@dartmouth.edu](mailto:flashman@dartmouth.edu). Please submit all application materials in a single file. A .pdf file is preferred, although other formats will be accepted. The letter of nomination and supporting letters may be included in the application file, or e-mailed directly to Dr. Flashman. If hard copies of the letters are being sent, please have them mailed directly to: Laura A. Flashman, Ph.D., ABPP-Cn, Director of Neuropsychology, Department of Psychiatry, HB7750, Dartmouth Hitchcock Medical Center, Lebanon, NH 03756.

**Application deadline:** December 4, 2009 @ 5:00 pm EST

**Award:** The awardee will receive \$1,000 and an invitation to present a paper at the APA Convention.

## Early Career Psychologist Committee

Deborah Weber Loftis, Ph.D. - Chair

### Congratulations Division 40!

Division 40 currently has the **highest number of Early Career Psychologists** of any Division in APA, and the numbers are increasing (Early Career Psychologists (ECPs) are defined as being within seven years of the receipt of their doctorate degree)!

### ECP Committee

Division 40 Early Career Psychologist Committee Members include:

- Deborah Weber Loftis, Ph.D.
- Karin Hoth, Ph.D.
- Barry R. Ardolf, Psy.D
- Christy Emmons, Psy.D.
- Heidi Bender, Ph.D

### Early Career Psychologist (ECP) Survey Update

To find out more about Division 40 ECPs the Division 40 ECP Committee conducted a needs assessment survey. The survey was sent to over 450 Division 40 ECPs who had email address on file and advertised in the D40 Newsletter and the April issue of the APA Monitor. The survey ended May 1<sup>st</sup> and results will be available in the next issue of the D40 Newsletter. Stay tuned!

### ECP Social at INS

The ECP Committee would like to thank all the ECPs who joined us at INS for the joint ECP/ANST social hour. The social hour was a success and provided a great opportunity to meet fellow early career neuropsychologists. A social is also being planned for the 2010 INS meeting in Acapulco, Mexico at the Fairmont Princess Resort.

### Convention News

The APA 117<sup>th</sup> Annual Convention will be held in Toronto, Canada August 6<sup>th</sup> – 9<sup>th</sup>, 2009. Program geared specially towards early career psychologists include:

**Friday August 7<sup>th</sup>, 2009**

- 11:00 am – 11:50am *Launching Your Career on Solid Footing: How to Lead and Succeed*  
**Metro Toronto Convention Centre – Meeting Room 809**
- 12:00pm – 1:50pm *Launching Your Career on Solid Footing: Roundtable Discussions on Education and Training for Early Career Psychologists*  
**Metro Toronto Convention Centre – Constitution Hall 105**
- 12:00pm – 1:50pm *Launching and Building a Practice: Providing High-Quality Psychological Services in Challenging Economic Times*  
**Metro Toronto Convention Centre – Meeting Room 713B**
- 6:00 pm – 6:50pm *ECP Social Hour*  
**Fairmont Royal York Hotel, Salon A**

**Saturday August 8<sup>th</sup>, 2009**

- 2:00 pm – 3:50pm *Launching Your Career on Solid Footing: Financial Planning for Early Career Psychologists*  
**Metro Toronto Convention Centre – Constitution Hall 105**
- 4:00 pm – 5:50pm *Launching Your Career on Solid Footing: Incorporating Self-Care Across the Life-Span Continuum*  
**Metro Toronto Convention Centre – Meeting Room 705**

**CECP News**

The popular Early Career Psychologist Financial Planning Brochure is still available to APA members at: [http://members1.apa.org/earlycareer/Financial\\_Handbook.pdf](http://members1.apa.org/earlycareer/Financial_Handbook.pdf)

**List serve:**

You can join the CECP Early Career Listserv, a forum dedicated to the needs of early career psychologists that includes ECPs from across APA Divisions and the State and Provincial Psychological Associations. To subscribe to the list, send an email to [listserv@lists.apa.org](mailto:listserv@lists.apa.org) with the following text in the body of the message: **SUBSCRIBE EARLYCAREER** (example: SUBSCRIBE EARLYCAREER Robert Smith).

**Science Advisory Committee (SAC) Update**

John A. Lucas, PhD, SAC Chair.

The Science Advisory Committee (SAC) facilitates the scientific mission of Division 40 by communicating and promoting the integration of scientific goals within the Division, within APA, and across professions.

SAC members include: John A. Lucas, PhD, Chair; Adam Brickman, Dean Beebe, Corwin Boake, Meryl Butters, Jessica Chapin, Jovier Evans, Philip Fastenau, Laura Flashman (Awards Subcommittee Chair), Amy Heffelfinger, Ramona Hopkins, Sterling Johnson, Liza Kozora (Transdisciplinary Research Subcommittee Chair), Christina Meyers, Sid O'Bryant, Robert Paul, Beth Rush, Alex Troster, Jennifer Vasterling.

Recent SAC activities include:

Grants Workshop: The Div40 SAC is sponsoring a 2-hour grantsmanship, organized by Dr. Jovier Evans (NIMH) and featuring additional program officers representing NIA, NINDS and NIDA. The workshop is tentatively scheduled for the morning of Sunday, August 9. For more information, please contact John Lucas at [lucas.john@mayo.edu](mailto:lucas.john@mayo.edu).

Student Poster Session: The SAC and Program Committee are exploring the possibility of inviting students who are presenting posters at the APA convention in Toronto to also have their posters presented during the Div40 social hour.

A Science Membership Database has been created to facilitate the promotion of neuropsychological science within the division and within APA. Div40 members engaged in research are encouraged to access the database and enter information regarding their area(s) of research expertise and funding sources. Members will also be given an opportunity to indicate whether they would be willing to assist Div40 and/or APA in committee work or policy development that would benefit from their specific expertise. To access the science membership directory/database website, please visit [www.div40.org/sacsid](http://www.div40.org/sacsid) or follow the link from the Division 40 home page ([www.div40.org](http://www.div40.org)).

APA Task Force on The Future of Psychological Science. APA President James Bray has created a task force to explore ways to promote psychological science as a core discipline in STEM (science, technology, engineering, mathematics) education. The SAC has created an advisory panel to consult with Dr. Jennifer Manly, who has been invited to serve on this task force. Advisors include Drs. Robert Bilder, H. Julia Hannay, Ramona Hopkins, and Robert Paul.

Division 40 Awards

Congratulations to Dr. Nancy Chiaravalloti, the 2009 recipient of the Robert A. and Phyllis Levitt Early Career Award.

## Newsletter

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Newsletter 40 is the official publication of Division 40.  
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Webmasters are William Barr, PhD, ABPP-CN and  
Michael Cole, PhD

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## Newsletter