



Mental Health
Council of Australia

WEEKLY BULLETIN

No. 7 2012

BULLETIN NO. 7, 2012

Hi everyone,

Apologies for the delay in sending out the Bulletin last Friday, I've been busier than usual lately with a couple of staff changes in the organisation.

I have found a mix of media releases and articles from both Australia and overseas, with the presentation of a number of models and research findings.

Of particular note, I would like to take the opportunity to plug our new joint Mental Health Council of Australia and *beyondblue* website – www.mentalhealthandinsurance.org.au which is a one-stop portal for mental health consumers and carers seeking insurance products. The website came about after receiving numerous complaints from people who find it difficult to find insurance products, or if they can, they are offered with prohibitive loadings due to their having or having had a mental illness. It is our hope that this website will offer people information to make their attempts when applying for insurance or claiming against their existing policies that little bit easier. If you are a service provider, it may be a useful link/resource that you could provide to your clients.

Kind regards,

Rachelle

- 1 Website helps people with mental illness and their carers deal with insurance
- 2 New prescription drugs monitoring model opens door to target alcohol harm
- 3 Losing your religion has link with disorders
- 4 The importance of patients' perceptions in avoiding depression from chronic illnesses
- 5 Clinical practice guideline for the management of Borderline Personality Disorder
- 6 Spotlight on eating disorders
- 7 "A disease like any other"? A decade of change in public reactions to schizophrenia, depression and alcohol dependence.
- 8 Suspect gene variants boost PTSD risk after mass shooting - Profile of risk emerging for trauma-triggered molecular scars
- 9 Top ten research priorities relating to life after stroke
- 10 Understanding mood disorders & resilience – Information session



1 Website helps people with mental illness and their carers deal with insurance

Media Release MHCA and beyondblue

22 February 2012

The Mental Health Council of Australia (MHCA) and *beyondblue: the national depression and anxiety initiative* will launch the Mental Health and Insurance Project (MHIP) website (www.mentalhealthandinsurance.org.au) today.

Australians with experience of mental illness often face difficulties in accessing insurance policies and/or making claims against insurance policies as a result of their mental illness and are often unaware of their rights and responsibilities in relation to insurance applications and claims.

The MHIP website has been developed in collaboration with representatives from the insurance and financial services sectors as a means of addressing information gaps and empowering consumers seeking insurance products.

The MHIP website contains information on mental illness and insurance, including the relationship between mental illness and specific insurance products, consumer legal rights and responsibilities, the disability legislative structure that governs the insurance industry and consumer avenues for complaints and appeals. The *Tell Your Story* portal allows visitors to share their experiences and assist advocacy efforts.

This website builds on the findings of the groundbreaking MHCA/*beyondblue* 2011 report, *Mental Health, Discrimination and Insurance: A survey of consumer experiences 2011*, which captured the experiences of Australians living with mental illness when accessing insurance products. Respondents reported a lack of awareness of their rights and responsibilities with insurance applications and claims. This one-stop online portal will improve knowledge and awareness of insurance practices for mental health consumers and their carers.

Ensuring fair and equitable access to insurance for Australians with mental illness is a key priority for the MHCA and *beyondblue*. This website will help Australians with mental illness access the information they need engage properly and fully within insurance applications and claims processes. This MHIP website is one way in which the mental health sector and the insurance and financial services industries can ensure that this information is made available to Australians with mental illness and their carers when and where they need it.

Representatives from the mental health and insurance and financial services sectors have been working collaboratively for over a decade to improve the experiences of Australians with mental illness and their carers in applying for and making claims against their insurance policies.

www.mentalhealthandinsurance.org.au



2 New prescription drugs monitoring model opens door to target alcohol harm

ADCA Media Release

17 February 2012

The Federal Government initiative to crackdown on prescription painkiller abuse is to be applauded as the misuse of pharmaceutical drugs can result in dangerous and even fatal consequences, the Chief Executive Officer (CEO) of the Alcohol and other Drugs Council of Australia (ADCA), Mr David Templeman, said today.

“ADCA recognises that prescription and over-the-counter medicines have made a significant and positive contribution to the health and wellbeing of Australians, but warns that nearly all medicines have the potential to cause harm,” Mr Templeman said.

“This new national electronic records system, effective from 1 July 2012, certainly provides doctors and pharmacists with a real-time tool that will deliver health and cost benefits to communities across Australia. Alcohol is our main drug of concern with severe health and economic consequences, much more than illicit and prescription drugs combined.”

Mr Templeman said that similar action should be taken in the alcohol environment as some people buy and use alcohol in the same way as those consumers who seek and use prescription addictive drugs.

“In fact, the introduction of the monitoring system could result in some people resorting to alcohol to self-medicate for pain relief,” Mr Templeman said.

“And the results from the excessive consumption of alcohol are similar with increases in violence, motor vehicle accidents and injury, and police recording an estimated 40 per cent of all people detained as being affected by alcohol,” Mr Templeman said.

“On average, some 1500 hospitalisations occur each week because of alcohol, and the cost to the Australian community from alcohol-related harm is estimated to be more than \$36 billion a year.”

Mr Templeman said the recent fact the New South Wales Casino, Liquor, Gaming and Control Authority had approved major supermarket applications to expand their outlets, as well as not heeding objections from New South Wales Health that super-cheap alcohol would grow sales, was totally irresponsible.

“Organisations responsible for the licence approval process, as well as the alcohol industry, and all supermarket/ retail sales organisations need to consider ways to enhance the health and wellbeing of their customers,” Mr Templeman said.

“ADCA is calling for a joined-up approach to be taken with Governments at all levels to immediately address Australia’s growing drinking culture,” Mr Templeman said.

“The answer could be to modify the prescription electronic records system and link it to sales check-out screens to monitor purchasing patterns, particularly in relation to low-priced alcohol beverages, and to ensure customers are not under the legal age limit?”

www.adca.org.au



3 Losing your religion has link with disorders

Dr Tanveer Ahmed, psychiatrist

Publication: Sydney Morning Herald

Wed 22 Feb 2012

A draft of the new classification system for psychiatry is now public. Rarely has a set of dry guidelines from Washington DC caused such consternation. Outlets from The New York Times to the Hindustan Times heralded its arrival. You would think it was the work of the World Bank or International Monetary Fund, not a bunch of shrinks.

Already there is a howl of protest about the unending loosening of mental illness. There are fears mental illness will become the new normal. This would do wonders for reducing stigma, at the very least, but our natural resilience could be rendered powerless by the culture of therapy. We would be the nation that moved from Anzac to Prozac in a century, the critics say.

Such fanfare makes sense. The Diagnostic and Statistical Manual of Mental Disorders is as much a cultural institution as a clinical one. As an arbiter of what is normal and what is not, it plays an important role in insurance and disability determinations and can bear on criminal culpability in the courtroom.

But in reality, the vast majority of specialists in mental health, be they psychiatrists, psychologists or counsellors, do not take the DSM too seriously - nor should they. The manual's framers in 1980 explicitly cautioned against taking the guidelines too literally, but encouraged the use of it as a standardised communication tool.

Mental illness is too complex and poorly understood for the manual to carry real weight and authority with specialists. At the coalface, treatment is largely based on symptom control. There is simply no substitute for observing the patient, listening to his or her story, and fine-tuning their treatments - psychological and pharmacological - as needed.

Freud said the major tasks of development for an adult were to work and love. Until we can no longer undertake our roles in work, school or family for extended periods due to psychological distress, few people who satisfy a checklist actually require treatment.

The main danger of the DSM system lies in its use by busy general practitioners, who treat close to 80 per cent of mental health disorders and prescribe based on quick-fire histories that fit checklists.

But perhaps the significance of the proposed DSM V will be diluted with the likely decline of American economic and cultural hegemony in the world. The manual's pre-eminence has occurred in direct parallel with the rise of fierce, market individualism in the American century. Under the auspices of both the state and the market, a vast body of disenfranchised and disengaged citizens has emerged - with new medical labels.

Western society has had little success in recreating institutions and forms of solidarity to replace those that declined in importance in the past 100 years, such as the family or the church.



This wholesale loss of group membership is manifest in a heightened desolation of liberal autonomy.

The rise in mental health diagnosis is a sign of this. It is the new market society expressed in emotional terms, a privatisation and categorisation of all human distress. Its costs have passed out of the community and on to the balance sheet of the state.

For all our freedom and wealth, one of the key difficulties of life in the modern West - where tradition, religion and community have been so horribly stripped bare - is making sense of our lives when there are so few rules about how to live.

The increase in DSM categories partially reflects this uneasiness: the rise in addiction is a symptom of a world with unending novelty - from drugs to video games to internet porn; the growth in ADHD reflects young lives drowning in the intermittent stimulation of communications technologies; and depression rates rise because we have lost the tools to make sense of loss, grief and uprooting.

Discussion about mental health is ubiquitous because it has become a synonym for human distress more generally. When our distress lacks meaningful outlets in the form of rituals or cushioning from family and community, or we have suspicions about the notion of human agency and morality, all that is left are disorders.

Ironically, if the trends continue, the power of mental health diagnoses to impart identity, limit self-reliance and dilute individual responsibility may also decline. This may be a good thing, not just for psychiatry, but for all our social relations.

<http://www.smh.com.au/opinion/society-and-culture/losing-your-religion-has-link-with-disorders-20120221-1tloj.html>

4 The importance of patients' perceptions in avoiding depression from chronic illnesses

Rachel Katterl

Primary Health Care Research & Information Service

24 February 2012

Patients with multiple chronic illnesses, otherwise known as multimorbidities, are a reality of daily practice for most primary care practitioners.

Estimates suggest that around a quarter of all Australians have multimorbidities, and this increases to around 80% of those over the age of 60. Despite this, research often shies away from investigating this topic beyond prevalence rates because it is such a complex problem.



Jane Gunn and her team at The University of Melbourne have recently tackled this challenge and published results from their diamond study.

The paper investigated the co-occurrence of depression and chronic physical illness in primary care settings. The team explored the link between depression symptoms and the number and type of physical illness and depression symptoms, including the role that the degree of impairment has in producing depressive states.

Importantly, the researchers addressed a common flaw in previous studies by controlling for the use of antidepressants, which may alleviate depression.

The authors discovered a dose-response pattern in the relationship between the number of chronic illnesses and depressive symptoms. That is, with each increase in the number of reported physical conditions, the odds of the patient experiencing depression symptoms likewise rose.

Compared to people with no physical illnesses, those with five or more conditions were four times more likely to show depressive symptoms. This pattern was evident irrespective of the illnesses in question, which ranged from dermatitis, to back problems, through to heart disease.

A second interesting finding related to patients' experiences and perceptions of their health. Patients' self rated health, as well as the functional limitations their illness imposed, appeared to have a mediating role on the depressive symptoms they experienced.

This study has a number of important implications. Firstly, it allows primary care practitioners to target individuals who are at high risk of depression, particularly individuals who are over the age of 60.

In addition, it clarifies our thinking about the relationship between physical health and mental health, but suggests that it is the health related quality of life that contributes to individuals experiencing depression, rather than physical illness per se.

This is promising, as chronic conditions cannot be cured, though with adequate management of their physical health people can continue to live fulfilled lives in the presence of otherwise debilitating illnesses.

<http://blogs.crikey.com.au/croakey/2012/02/24/chronic-health-problems-and-depression-what-matters-for-patients/>



5 Clinical Practice Guideline for the Management of Borderline Personality Disorder

National Health and Medical Research Council

Upcoming public feedback sought

The Department of Health and Ageing has commissioned the NHMRC to develop a clinical practice guideline for the management of borderline personality disorder (BPD).

Scope

The guideline will examine diagnosis, treatment and management options for adolescents and adults with BPD. The guideline will be suitable for use by mental health clinicians and other health professionals who provide care to people with BPD in primary, secondary, community and specialist health care settings, as well as being useful for mental health service planners. It will include recommendations aimed at identifying the most effective psychosocial and pharmacological interventions, and will be adapted from the United Kingdom's National Institute for Health and Clinical Excellence (NICE) guidelines.

Guideline Development Process

The guideline will be developed in accordance with NHMRC standards and involve the review of existing evidence and international guidelines, in particular the NICE Guideline on the Treatment and Management of Borderline Personality Disorder (2009). The NHMRC will adapt the NICE guideline for Australian health-care settings with the assistance of a multidisciplinary guideline development committee.

Public Consultation

The draft of the clinical practice guideline will be made available on the NHMRC website for public comment in April 2012, and submissions will be invited from the public and interested parties at this time. Please register your interest by emailing your details to bpd@nhmrc.gov.au to receive updates on the progress of the BPD guideline development, including the consultation draft once it is released.

Timeline

The guideline is expected to be completed by November 2012.

<http://www.nhmrc.gov.au/nics/nics-programs/clinical-practice-guideline-management-borderline-personality-disorder>



6 Spotlight on eating disorders

Thomas Insel, Director

National Institute of Mental Health

February 24, 2012

What is the most fatal mental disorder? The answer, which may surprise you, is anorexia nervosa. It has an estimated mortality rate of around 10 percent.ⁱ What is the cause of this high rate of mortality? The answer is complicated. While many young women and men with this disorder die from starvation and metabolic collapse, others die of suicide, which is much more common in women with anorexia than most other mental disorders.

The last week of February is National Eating Disorders Awareness Week. [Eating disorders](#) include anorexia nervosa, bulimia nervosa, and binge eating disorder. We often hear about the epidemic of obesity and the health consequences of over-eating, but the perils of anorexia and bulimia are less recognized. Here are some little known facts about eating disorders, all gleaned from NIMH-funded research.

First, the demographics of eating disorders may be changing. The National Co-Morbidity Study-Replication, an NIMH-funded population-based epidemiologic study from a decade ago, struggled with estimating the prevalence of eating disorders because the researchers found that many respondents were reluctant to admit to these syndromes during a structured interview.

Nevertheless, the study reported that these disorders are more common in women. The lifetime rate for anorexia nervosa among women was estimated at 0.9 percent compared to 0.3 percent among men. The lifetime rate among women for bulimia nervosa was 0.5 percent compared to 0.1 percent among men. And the lifetime rate among women for binge eating disorder was 3.5 percent compared to 2 percent among men.ⁱⁱ Almost certainly, these numbers are under-estimates. We have seen hospitalization rates for eating disorders continue to rise, increasing 18 percent between 1999 and 2006.ⁱⁱⁱ In addition, contrary to the traditional stereotype that eating disorders mostly affect white upper middle class females, the ethnic makeup of those contending with eating disorders may be changing. On a recent trip to China, when I asked mental health officials about their number one concern, in both Beijing and Shanghai, I heard about anorexia nervosa.

Second, the treatments for eating disorders are changing. Traditionally, anorexia in adolescents has been viewed as a “family systems” problem requiring a “parentectomy” — exclusion of the parents or caregivers from the teen’s treatment plan. But research at the Maudsley Hospital in London, which was replicated in the United States by Le Grange and Lock, has shown that outcomes appear much better if parents are empowered and included, rather than excluded, from the treatment.^{iv} In fact, a carefully controlled trial evaluating the effectiveness of a family-based treatment approach found 50 percent of participants continued to experience full remission one year after the end of therapy.^v Whether this same approach will work for older patients is not clear, but [research is currently underway that incorporates families in the treatment of adults with anorexia](#). The proof of principle is important: family involvement can be critical for recovery.



While it is encouraging to have new and effective treatments, we continue to hear from families with a teenager who has received insurance coverage for intensive care for a metabolic crisis, but could not get coverage for the underlying eating disorder. There may be no other area of mental health care with such an obvious injustice. Imagine a teenager with leukemia receiving antibiotics for an infection but not receiving treatment for the cancer. While the dynamic duo of mental health parity and health reform may lead to a solution, coverage of treatment for eating disorders will ultimately differ by state. That is all the more reason to remember – at least one week of the year – that eating disorders are serious, sometimes fatal, disorders.

<http://www.nimh.nih.gov/about/director/index.shtml#p142979>

7 “A disease like any other”? A decade of change in public reactions to schizophrenia, depression and alcohol dependence.

Pescosolido et al

The American Journal of Psychiatry

Volume 167 Number 11

1 November 2010

Objective:

Clinicians, advocates, and policy makers have presented mental illnesses as medical diseases in efforts to overcome low service use, poor adherence rates, and stigma. The authors examined the impact of this approach with a 10-year comparison of public endorsement of treatment and prejudice.

Method:

The authors analyzed responses to vignettes in the mental health modules of the 1996 and 2006 General Social Survey describing individuals meeting DSM-IV criteria for schizophrenia, major depression, and alcohol dependence to explore whether more of the public 1) embraces neurobiological understandings of mental illness; 2) endorses treatment from providers, including psychiatrists; and 3) reports community acceptance or rejection of people with these disorders. Multivariate analyses examined whether acceptance of neurobiological causes increased treatment support and lessened stigma.

Results:

In 2006, 67% of the public attributed major depression to neurobiological causes, compared with 54% in 1996. High proportions of respondents endorsed treatment, with general increases in the proportion endorsing treatment from doctors and specific increases in the proportions endorsing psychiatrists for treatment of alcohol dependence (from 61% in 1996 to 79% in 2006) and major depression (from 75% in 1996 to 85% in 2006). Social distance and perceived danger associated with



people with these disorders did not decrease significantly. Holding a neurobiological conception of these disorders increased the likelihood of support for treatment but was generally unrelated to stigma. Where associated, the effect was to increase, not decrease, community rejection.

Conclusions:

More of the public embraces a neurobiological understanding of mental illness. This view translates into support for services but not into a decrease in stigma. Reconfiguring stigma reduction strategies may require providers and advocates to shift to an emphasis on competence and inclusion.

The past 20 years have witnessed a resurgence in clinical, policy, and research efforts to reduce stigma attached to mental illness. The White House Conference on Mental Illness and the Surgeon General's first-ever report on mental health, both in 1999, coalesced knowledge and fostered renewed action. These comprehensive assessments applauded the range and efficacy of existing treatments for mental illness brought by advances across the medical and social-behavioral sciences, particularly neuroscience. However, they also documented a "staggeringly low" rate of service use among those in need, a shortage of providers and resources, and continued alarming levels of prejudice and discrimination.

After reviewing the scientific evidence, the Surgeon General concluded that the stigma attached to mental illness constituted the "primary barrier" to treatment and recovery. Stigma could be reduced, many believed, if people could be convinced that mental illnesses were "real" brain disorders and not volitional behaviors for which people should be blamed and punished. Many prominent reports emphasized scientific understanding as a way to reduce stigma. For example, the Surgeon General's report identified scientific research as "a potent weapon against stigma, one that forces skeptics to let go of misconceptions and stereotypes". Stigma reduction, based in part on disseminating information on neurobiological causes, became a primary policy recommendation of the President's New Freedom Commission on Mental Health as well as of international efforts.

Finally, while not intended specifically as an antistigma effort, commercial advertisements provided information on psychiatric symptoms, brain-based etiologies, and specific psychopharmacological solutions. In fact, direct-to-consumer advertising involved more U.S. resources than all those dedicated to educational campaigns (e.g., over \$92 million on Paxil in 2000).

Deeply embedded in social and cultural norms, stigma includes prejudicial attitudes that discredit individuals, marking them as tainted and devalued. For individuals, stigma produces discrimination in employment, housing, medical care, and social relationships. Individuals with mental illness may be subjected to prejudice and discrimination from others (i.e., received stigma), and they may internalize feelings of devaluation (i.e., self-stigma). On a societal level, stigma has been implicated in low service use, inadequate funding for mental health research and treatment (i.e., institutional stigma), and the "courtesy" stigma attached to families, providers, and mental health treatment systems and research. Public stigma reflects a larger social and cultural context of negative community-based attitudes, beliefs, and predispositions that shape informal, professional, and institutional responses.



Antistigma efforts in recent years have often been predicated on the assumption that neuroscience offers the most effective tool to reduce prejudice and discrimination. Thus, NAMI's Campaign to End Discrimination sought to improve public understanding of neurobiological bases of mental illness, facilitating treatment-seeking and lessening stigma. Over the past decade, the American public has been exposed to symptoms, biochemical etiological theories, and the basic argument that mental illnesses are diseases, no different from others amenable to effective medical treatment, control, and recovery.

Given projections of the place of mental illness in the global burden of disease in the coming years (for example, depression alone is expected to rank third by 2020, the unprecedented amount of resources being directed to science-based antistigma campaigns, and the frustration of clinicians, policy makers, and consumers in closing the need-treatment gap, it is crucial that the efficacy and implications of current efforts be evaluated. However, despite reported successes in launching campaigns and disseminating information, few studies have undertaken systematic evaluation of stigma reduction efforts). The critical unanswered question is whether these efforts have changed public understanding and acceptance of persons with mental illness.

In this study, we assessed whether the cumulative impact of efforts over the past decade have produced change in expected directions. Using the mental health modules of nationally representative surveys 10 years apart, we examined whether the public changed during that interval in its embrace of neurobiological understandings of mental illness; its treatment endorsements for a variety of providers, including psychiatrists and general medical doctors; and its reports of community acceptance or rejection of persons described as meeting DSM-IV criteria for schizophrenia, major depression, or alcohol dependence.

<http://ajp.psychiatryonline.org/article.aspx?Volume=167&page=1321&journalID=13>

8 Suspect Gene Variants Boost PTSD Risk after Mass Shooting - Profile of Risk Emerging for Trauma-triggered Molecular Scars

Science Update

December 01, 2011

College students exposed to a mass shooting were 20-30 percent more likely to later develop [post traumatic stress disorder \(PTSD\)](#) symptoms if they harbored a risk version of a gene, NIMH-funded researchers have discovered. This boost in risk, traced to common variants of the gene that controls recycling of serotonin, was comparable to the risk conferred by close proximity to the shooting – for example, being in the room with the shooter versus just being on campus.

The discovery is the latest of several recently reported that collectively profile heightened biological vulnerability to developing PTSD following trauma – and the molecular scars it leaves in the brain.

For example, early this year, researchers linked high levels of a stress-triggered, estrogen-related hormone to PTSD symptoms in women, with certain versions of the hormone receptor's gene



conferring higher risk. A PET scan study in September traced increased PTSD symptoms to heightened levels of a serotonin receptor. Both studies suggest potential new drug targets for treating the disorder. Evidence is also mounting that trauma – particularly if experienced very early in life – can adversely alter the set-points of gene expression in brain stress circuits and compromise immune and inflammatory system function.

Gene-by-environment – caught in the act

By chance, researchers at Northern Illinois University (NIU) had already collected data on students' PTSD symptoms prior to the 2008 murder-suicide that killed six on the Dekalb, Illinois campus.

“This provided a rare opportunity to pinpoint not just a correlation but a cause – to document that such a tragedy can conspire with a risk gene to produce the disorder,” explained Kerry Ressler, M.D., Ph.D., of Emory University.

NIMH grantees Ressler, NIU's Holly Orcutt, Ph.D., and colleagues, report on discovery of this [gene-by-environment interaction](#) online September 5th 2011 in the Archives of General Psychiatry.

Previous efforts to confirm such an interaction in PTSD had been confounded by lack of data on individuals' pre-trauma symptoms. Any pre-existing symptoms must be taken into account to establish a common baseline – so that new symptoms that develop can confidently be pegged to the traumatic event.

By chance, before the tragedy, Orcutt's team had prospectively surveyed PTSD symptoms in more than a thousand NIU undergraduate women, as part of a longitudinal study on predictors of sexual victimization, which can trigger the disorder. Within a few weeks after the tragedy, they seized the opportunity and – with help from a NIMH [RAPID grant](#) – conducted follow-up surveys, using the same measures, in subsets of the original sample – and then again after several months – to track symptom changes. Ressler's team ultimately analyzed saliva samples from 235 women for gene type.

Previous studies had linked PTSD to a version of the gene that codes for the serotonin transporter (SERT), the protein on neurons that recycles the chemical messenger serotonin back into the cell after it is secreted into the synapse. So the researchers focused their genetic analysis on this variation, noting that it is “the most commonly described [polymorphism](#) in the psychiatric genetics literature.”

For example, this same site of genetic variation has also been linked to [increased risk for anxiety](#) - and, in some studies, [increased risk for depression following stressful life events](#), although the latter findings remain [controversial](#). Some hypothesize that these implicated variants may have less to do with conferring disease risk, per se, than with increased sensitivity to environmental influences more generally.

Antidepressant medications, serotonin selective reuptake inhibitors (SSRIs), work by blocking SERT, thereby enhancing serotonin activity. SSRIs are the main medication treatment for PTSD.



Everyone inherits two copies of the SERT gene, one from each parent. So people can inherit one or two copies of risk-associated versions that are common in the population. Carrying any combination of these risk versions had been associated with increased risk for PTSD in 8 out of 9 previous studies.

The new study more definitively connects the dots between the environmental trigger and these risk gene types. Among 204 women without prior symptoms, 20 percent of those who showed acute symptoms within a few weeks after the shooting had developed PTSD symptoms when surveyed several months later. Proximity to the shooting and the risk gene types were about equally predictive of increased risk among this group.

These results come at a time of ferment in the field over confidence in gene-by-environment findings. A recent analysis by NIMH grantees of more than 100 such studies over the past decade uncovered what they call [“publication bias.”](#) They found that positive new findings were more likely to get published, while direct replications – which tend to be less likely to confirm positive new findings – were under-reported. The net effect: an unintentional bias toward false positive reports. Notably, the researchers singled out as a prime example of this bias the scientific literature on serotonin transporter gene-by-environment interactions.

“How we measure environment may be at least as important as how we measure genetics, but to date, little effort has been focused on that,” noted Ressler. “We think that performing prospective studies in populations with shared trauma may be one way to 'hold constant' the environment variable, thus allowing for more clarity in the role of genetics.”

Why Women are More Vulnerable

Earlier this year, Ressler and colleagues reported findings that may help to explain why women are twice as likely as men to develop PTSD. They linked PTSD symptoms in women to higher blood levels of what has been dubbed the [“master regulator” of the stress response](#), a hormone called [PACAP](#) (pituitary adenyl cyclase-activating peptide).

PTSD symptoms were 5-fold higher in women with above average PACAP levels, compared to women with below average levels. Also in women only, a certain version of the gene that codes for PACAP’s receptor, PAC-1, conferred increased vulnerability. Experiments in rodents confirmed that this variable part of the PAC-1 gene is regulated, in part, by the female hormone estrogen.

This suggests that heightened vulnerability to PTSD in females may be traceable to this brain system critical to proper stress circuit function. Genetic variation in a different pathway may similarly be linked to increased risk for PTSD in men, say the researchers.

Molecular scars

The Emory researchers also found increased methylation – [epigenetic](#) regulation of gene expression in response to the environment – in the part of Pac1 associated with PTSD in both women and men. Adverse experiences can induce molecules called methyl groups to attach to DNA and block genes



from turning on. This results in enduring changes in the proteins the genes express. These molecular scars can weaken the brain's defenses against PTSD.

Indeed, methylation increases pervasively in PTSD, according to Ressler and colleagues. Notably, they pinpointed such increases in several genes implicated in inflammatory and immune system abnormalities that go along with PTSD. They also saw abnormalities in immune system chemical messengers, called cytokines. Increased blood levels of one such cytokine TNF-alpha, known to trigger stress response symptoms, correlated with a history of child abuse and cumulative life stresses.

Early trauma may deplete resilience molecule

In September, a NIMH-funded brain imaging study reported that levels of a type of serotonin receptor (1B) were [markedly lower](#) in stress circuits of PTSD patients than in others exposed to trauma. This protein on neurons, to which the neurotransmitter binds, plays a pivotal role in [stress resilience and antidepressant effect](#). By contrast, [PET scans](#) revealed that people who had experienced trauma but didn't develop PTSD had only slightly fewer receptors than healthy controls.

NIMH grantee Alexander Neumeister, M.D., of Mount Sinai School of Medicine, and colleagues, traced both the severity of symptoms and the depleted receptors largely to the age at which trauma was first experienced. The earlier the age and the more subsequent trauma exposures, the fewer receptors expressed and the more severe the PTSD symptoms and overlap with depression. The dearth of receptors likely reflects such features of patients' trauma histories, with those who develop PTSD also having other genetic or environmental vulnerabilities, say the researchers.

Possible Uses: Risk profile and treatment targets?

Such epigenetic and genetic signatures of PTSD proneness in blood and brain, together with behavioral measures, may collectively prove useful in profiling a patient's risk for developing the disorder. Molecules such as PACAP and the serotonin 1B receptor may also hold promise as potential targets of new drugs aimed at correcting specific abnormalities in the affected brain pathways, suggest the researchers.

<http://www.nimh.nih.gov/science-news/2011/suspect-gene-variants-boost-ptsd-risk-after-mass-shooting.shtml>



9 Top ten research priorities relating to life after stroke

Pollock, St George, Fenton and Firkins

The Lancet Neurology

Volume 11, Issue 3

March 2012

In November, 2011, Alessandro Liberati (1954—2012) called for a redefinition of the academic research agenda. Liberati supported initiatives such as the UK-based [James Lind Alliance](#) (JLA), which has developed models for bringing patients and health professionals together to identify research priorities. The JLA aims to ensure that those who undertake and fund health research are aware of what gaps in knowledge matter most to patients, carers, and health professionals.

Working in collaboration with the JLA, from February, 2009, to November, 2011, we completed a priority setting project that has defined a national research agenda relating to life after stroke.

JLA methods involve four key stages: (1) gathering of treatment uncertainties, (2) checking of existing research evidence, (3) interim prioritisation to identify the priorities of relevant individuals and stakeholder groups, and (4) a final consensus meeting to reach agreement on the top ten research priorities. We supplemented standard JLA methods of postal and email surveys with novel strategies to ensure that we enabled equal participation of stroke survivors, carers, and health professionals throughout Scotland. We developed these strategies to address barriers to participation, such as those caused by living in remote geographical locations (Scotland's highland and islands) and stroke-related impairments and disabilities. Strategies included face-to-face visits at stroke support groups and clubs, production of information in several formats (eg, an aphasia-friendly information sheet and audio presentation), and provision of information at key national health professional and stroke meetings.

We collected 548 treatment uncertainties (260 from stroke survivors) which, after checking research evidence, were reduced to 226 unique unanswered research questions. 97 people participated in the interim prioritisation process, leading to the identification of 24 shared top priorities. At a final consensus meeting, a representative group of stroke survivors, carers, and health professionals unanimously agreed their top ten priorities for future research. The [webappendix](#) and the JLA website provide additional methodological details.

Top ten research priorities relating to life after stroke

1. What are the best ways to improve cognition after stroke?
2. What are the best ways to help people come to terms with the long-term consequences of stroke?
3. What are the best ways to help people recover from aphasia?



4. What are the best treatments for arm recovery and function, including visual feedback, virtual reality, bilateral training, repetitive task training, imagery or mental practice, splinting, electromechanical and robot-assisted arm training, and botulinum toxin?
5. What are the best ways to treat visual problems after stroke?
6. What are the best ways to manage or prevent fatigue?
7. What are the best treatments to improve balance, gait, and mobility, including physiotherapy, gait rehabilitation, visual and auditory feedback, electrical stimulation, different types of ankle foot orthoses, and electromechanical assisted gait training?
8. How can stroke survivors and families be helped to cope with speech problems?
9. What are the best ways to improve confidence after stroke, including stroke clubs or groups, offering support, one-to-one input, and re-skilling?
10. Are exercise and fitness programmes beneficial at improving function and quality of life and avoiding subsequent stroke?

Seven of the top ten priorities are related to stroke-related impairments, such as cognitive problems, aphasia, mobility problems, vision impairment, fatigue, and lack of fitness. However, also included in the top ten are three questions related to the indirect consequences of stroke, covering the issues of coming to terms with life after stroke, helping stroke survivors and carers to cope with speech problems, and confidence after stroke. Stroke survivors and carers made eloquent and convincing arguments for the importance of these issues, highlighting, for example, that there was little point in addressing stroke-related impairments in communication or mobility if one did not have the confidence to participate in daily or recreational activities.

These priorities relating to life after stroke have been generated through a unique, comprehensive, rigorous, and inclusive process, with equal participation from stroke survivors, carers, and health professionals. Here, the research agenda relating to life after stroke has been defined by people to whom it matters most and should now inform the activities of the stroke research community and research funding bodies.

[http://www.thelancet.com/journals/laneur/article/PIIS1474-4422\(12\)70029-7/fulltext](http://www.thelancet.com/journals/laneur/article/PIIS1474-4422(12)70029-7/fulltext)



10 Understanding mood disorders & resilience – Information session

Black Dog Institute

Event notification

The Black Dog Institute is hosting a free community education presentation on Thursday 15 March 2012. The presentation will answer the following questions:

- What is depression and bipolar disorder?
- How to spot early warning signs?
- When and where to seek help?
- How to build resilience?

It starts at 7pm and will take place at House in the Park, Stuart Street, Wahroonga.

For further information, contact Black Dog Institute on (02) 9382 4523 or email blackdog@blackdog.org.au

www.blackdoginstitute.org.au/public/events/communityeducationseminars

Ongoing - Mental Health Carers Forum

If you are a carer and would like to talk with other mental health carers about issues of concern to you please complete the form at:

<http://www.mhca.org.au/carerform/index.php>

The email is sent every week and contains items which may interest mental health consumers, carers and service providers and which otherwise they may not be able to access. Thank you for subscribing to this MH email if you wish to unsubscribe please contact rachelle.irving@mhca.org.au Rachelle Irving, Deputy CEO, Mental Health Council of Australia

Tel (02) 6285 3100

www.mhca.org.au



This message is intended for the addressee and may contain confidential information. If you are not the intended recipient, please delete this message and notify the sender. Views expressed are those of the individual sender, and are not necessarily the views of the Mental Health Council of Australia.

