Ethical Human Psychology and Psychiatry, Volume 12, Number 2, 2010

Antidepressant-Induced Suicide, Violence, and Mania: Risks for Military Personnel

Peter R. Breggin, MD

Ithaca, New York

The newer antidepressants frequently cause suicide, violence, and manic-like symptoms of activation or overstimulation, presenting serious hazards to active-duty soldiers who carry weapons under stressful conditions. These antidepressant-induced symptoms of activation can mimic posttraumatic stress disorder and are likely to worsen this common disorder in soldiers, increasing the hazard when they are prescribed to military personnel. Antidepressants should not be prescribed to soldiers during or after deployment.

Keywords: antidepressants; military; stress; suicide; violence; mania; antidepressant adverse drug reactions

Recently, concern has been expressed about the increased prescription of psychiatric medications, especially antidepressants, to military personnel (Lorge, 2008; Thompson, 2008). In presentations at military conferences on combat stress (Breggin, 2009, 2010a) and in testimony before the U.S. House of Representatives Veterans Affairs Committee (Breggin, 2010b), I have pointed to a probable causal relationship between increasing rates of antidepressant prescription and increasing rates of suicide in the military. This article reviews and evaluates the relevant scientific data.

RESEARCH LEADS TO FDA LABEL CHANGES FOR THE NEWER ANTIDEPRESSANTS

Because of concerns about reported cases of suicide in association with the newer antidepressants, the Food and Drug Administration (FDA) required a reevaluation of all prior double-blind placebo-controlled clinical trials conducted on children and youth conducted during the FDA approval process (Hammad et al., 2006). The selective serotonin reuptake inhibitor (SSRI) antidepressants were reevaluated, including fluoxetine (Prozac), fluvoxamine (Luvox), paroxetine (Paxil), sertraline (Zoloft), citalopram (Celexa), and escitalopram (Lexapro). In reports issued by the FDA (2004a), four other potentially stimulating antidepressants were found to produce similar adverse behavioral and mental effects and were included in the group: venlafaxine (Effexor), mirtazapine (Remeron), bupropion (Wellbutrin or Zyban), and nefazodone (Serzone). The meta-analysis found that the risk of suicidal ideation and behaviors was doubled for children and youth taking the antidepressants compared to placebo (4% vs. 2%) (FDA, 2004b).

DOI: 10.1891/1559-4343.12.2.111

Compared to controlled clinical trials, under clinical conditions in the real world the rates of suicidality would be would be much higher than those in the clinical trials. Controlled clinical trials educate and inform the patients in more detail about risks, require weekly monitoring, last no more than several weeks, avoid drug combinations, and exclude suicidal patients. In addition, they provide great hope to the subjects and their families who seek to find a "new cure" by participating in the experimental clinical trials (Breggin, 2008a).

Of special relevance to the military age-group, the FDA more recently published its analysis of adult data including 372 double-blind placebo-controlled clinical trials with 99,231 subjects (Stone et al., 2009). The FDA concluded, "Compared with placebo, the increased risk of suicidality and suicidal behaviour among adults under 25 approaches that seen in children and adolescents" (p. 1).

The following excerpts are taken from the Zoloft (sertraline) label as of October 2008 (Physicians' Desk Reference, Inc., 2009). Identical or nearly identical warnings and information can be found in all antidepressants labels. A black box at the top of the label warns about the increased risk of suicidal behavior in children and youth and also young adults ages 18 to 24, including many young soldiers.

The warnings section specifically warns about the increased risk of medication-induced suicidality during "the initial few months of a course of drug therapy, or at times of doses changes, either increases or decreases." It then describes an activation or stimulant-like array of adverse effects:

> The following symptoms, anxiety, agitation, panic attacks, insomnia, irritability, hostility aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania, and mania, have been reported in adult and pediatric patients being treated with antidepressants for major depressive disorder as well as for other indications, both psychiatric and nonpsychiatric.

Note the specific mention of "irritability, hostility, aggressiveness, impulsivity"—a prescription for causing suicide and violence, especially in an already stressed individuals, including soldiers. This array of stimulant adverse effects resembles the most frequent psychiatric disorder associated with combat experience—posttraumatic stress disorder (PTSD) with its hyperalert overstimulated symptoms (American Psychiatric Association, 2000).

In the section on clinical worsening and suicide risk, the Zoloft label recommends informing patients and caregivers about this array of adverse drug effects. The probability that these warnings will be given to military personnel is not high, and of course, on deployment, their families will be unavailable to monitor them.

A medication guide for all age-groups (e-mail from R. Grewal, regulatory project manager, Division of Psychiatric Products, Center for Drug Evaluation and Research, Office of Drug Evaluation, Food and Drug Administration, to Donald Farber, attorney, San Rafael, California, August 14, 2008) appears at the end of each antidepressant label. It states, "The prescriber or health professional should instruct patients, their families, and their caregivers to read the Medication Guide and should assist them in understanding its contents." From my informal interviews of military health care providers at two consecutive military stress conferences (Breggin, 2009, 2010a), the medication guide is rarely if ever given to medicated soldiers in deployment or during postdeployment treatment and rehabilitation.

The medication guide provides a bulleted list of danger signs associated with the use of antidepressants:

- Thoughts about suicide or dying
- Attempts to commit suicide
- New or worse depression
- New or worse anxiety
- Feeling very agitated or restless
- Panic attacks
- Trouble sleeping (insomnia)
- New or worse irritability
- Acting aggressive, being angry, or violent
- Acting on dangerous impulses
- An extreme increase in activity and talking (mania)
- Other unusual changes in behavior or mood

All these potentially dangerous symptoms are also commonly seen in PTSD in military personnel, posing the risk of worsening this common military disorder.

CONFIRMATION FROM THE *DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS*

The official American Psychiatric Association's (2000) *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision), in the section on mania episode and elsewhere, states that antidepressants can cause the symptoms and behaviors associated with mania: "Symptoms like those seen in a Manic Episode may also be precipitated by antidepressant treatment such as medication" (p. 361), including "criminal" behavior, "antisocial" behavior, "irritability, particularly when the person's wishes are thwarted," "assaultive behavior," "physically assaultive" behavior, "physically threatening" behavior, "suicidal" behavior, and shifts from anger to depression (pp. 359–261).

The diagnostic manual also sates that SSRI antidepressants can cause akathisia, leading to suicide, aggression, and worsening of psychosis or behavioral dyscontrol. The hazards of hypomania or mania in armed combat soldiers are obvious.

OVERVIEW OF SCIENTIFIC STUDIES

Antidepressant-Induced Suicidality in Adults

A large body of research confirms an increased risk of suicidality in adults (Aursnes, Tvete, Gassemyr, & Natvig, 2005; Donovan, Kelleher, Lambourn, & Foster, 1999; Donovan et al., 2000; Fergusson et al., 2005). Jick, Dean, and Jick (1995) conducted an epidemiological study of reports from general practices (primary care) in the United Kingdom involving 172,598 adult patients who had been given at least one prescription for antidepressants. Taking into account a past history of suicidal behavior and other variables, fluoxetine remained twice as likely to be associated with suicide as older more sedating antidepressants.

Frankenfield, Baker, Lange, Caplan, and Smialek (1994) conducted a retrospective case review of all deaths in Maryland where either fluoxetine or tricyclic antidepressants were forensically detected. They found a statistically significant increase in *violent* suicides in association with fluoxetine (65% vs. 23%).

Under guidance from the FDA, GlaxoSmithKline conducted "a new meta-analysis of suicidal behavior and ideation in placebo-controlled clinical trials of paroxetine in adult patients with psychiatric disorders" (GlaxoSmithKline, 2006, p. 1). The company found a statistically significant increase in suicidal behavior in adults of *all ages* treated with Paxil for major depressive disorder.

In a noncontrolled study of suicide attempt cases admitted to a psychiatric unit in a general hospital, suicide attempt cases were more likely to have received antidepressants and benzodiazepines than nonsuicide cases (Raja, Azzoni, & Koukopoulos, 2009).

A study of 1,255 suicides in 2006 in Sweden (Ljung, Bjorkenstam, & Bjorkenstam, 2009) reported that 32% of Scandinavian men and 52% of Scandinavian women filled a prescription for antidepressants in the 180 days prior to death by suicide. A retrospective study examined the suicide rates among 887,859 Veterans Administration (VA) patients treated for depression and found that "completed suicide rates were approximately twice the base rate following antidepressant starts in VA clinical settings" (Valenstein et al., 2009). Juurlink, Mamdani, Kopp, and Redeimeier (2006) reviewed more than 1,000 cases of actual suicides in the *elderly* and found that during the first month of treatment the SSRI antidepressants were associated with nearly a fivefold higher risk compared to other antidepressants. Fisher, Kent, and Bryant (1995) conducted a phone survey of pharmacy patients taking various antidepressants and found a higher rate of suicidality on SSRIs.

Antidepressant-Induced Mania in Adults

A considerable body of research demonstrates that the newer antidepressants *frequently* cause mania. Preda, MacLean, Mazure, and Bowers (2001) carried out a retrospective study of 533 adult psychiatric hospital admissions over a 14-month period and found that 43 (8.1%) could be attributed to antidepressant-induced mania and/or psychosis. Morishita and Arita (2003) conducted a retrospective review of 79 patients treated for depression with paroxetine and found that seven (8.6%) developed hypomania or mania. Howland (1996) examined approximately 184 adult patients treated at a university clinic and hospital with SSRIs, including fluoxetine, paroxetine, and sertraline. He identified 11 cases (6%) of SSRI-induced mania, mostly severe.

Ebert et al. (1997) carried out a prospective study of 200 adult inpatients treated with the SSRI fluvoxamine. Fourteen patients (17%) developed hypomania, and some became potentially suicidal or dangerous. Levy, Kimhi, Barak, Aviv, and Elizur (1998) carried out a blind retrospective chart assessment of 167 adult patients with anxiety disorders. "Five patients (2.99%) were identified as having an episode of antidepressant-associated mania within 3 months of initiation of treatment." Martin et al. (2004) used a national database of more than 7 million privately insured individuals, aged 5 to 29 years, and found a statistically significant correlation between exposure to antidepressants and a subsequent diagnosis of bipolar disorder.

Individuals who have previously displayed manic symptoms have a *vastly* increased risk of mania when exposed to SSRI antidepressants (Ghaemi, Boiman, & Goodwin, 2000; Henry, Sorbara, Lacoste, Gindre, & Leboyer, 2001) with rates that exceed 20%.

The SSRI antidepressants pose a very serious risk of causing mania in patients with and without a prior history of manic-like symptoms.

Antidepressant-Induced Aggression in Adults

Healy, Herxheimer, and Menkes (2006) evaluated controlled clinical trial data produced by GlaxoSmithKline (2006) concerning paroxetine and found an increased rate of hostility for children and adults taking the medication. Healy (2000) conducted a randomized double-blind crossover study comparing the effects of sertraline (Zoloft) to a non-SSRI antidepressant (reboxetine) in a group of healthy volunteers. Two of the 20 individuals became severely disturbed with tendencies toward suicidal and violent behavior.

The FDA (1991) conducted an unpublished epidemiological study comparing fluoxetine to trazodone in regard to spontaneous reports concerning hostility and intentional injury (available at http://www.breggin.com). After factoring in the greater number of prescriptions for fluoxetine, fluoxetine had a higher frequency of reports for aggressive and violent behavior.

In a phone survey of pharmacy patients taking antidepressants, Fisher, Bryant and Kent (1993) compared fluoxetine with a more sedating antidepressant, trazodone. Fluoxetine caused "a higher incidence of psychologic/psychiatric adverse clinical events, including delusions and hallucinations, aggression, and suicidal ideation" (p. 235).

SSRI-Induced Apathy Syndrome in Adults

The mixture of apathy and disinhibited aggressiveness reported by Healy (2000) and others is found in a portion of patients who become uncharacteristically violent as a result of taking SSRIs (Breggin & Breggin, 2004; Breggin, 2008a, 2008b). Hoehn-Saric, Lipsey, and McLeod (1990) describe SSRI-induced (fluvoxamine and fluoxetine) apathy in association with disinhibition in five patients (see also Marangell, Silver, Goff, & Yudofsky, 2003).

A Broad Range of Adverse Behavioral Effects in Children and Youth

Studies of children often include youth as old as age 17 or 18. Younger individuals are often more sensitive to drugs and are more likely to display adverse effects that will also appear with less frequency in adults.

Wilens et al. (2003) evaluated 82 charts of children and adolescents treated with SSRIs for symptoms of depression or obsessive-compulsive disorder over a mean period of 26.9 months. Psychiatric adverse events (PAEs) were found in 22%, "most commonly related to disturbances in mood." Remarkably, "re-exposure to an SSRI resulted in another PAE in 44% ($n = 13$) of the group." Of the 82 children, 21% developed *mood* disorders, including 15% who became *irritable*, 10% who became *anxious*, 9% who became *depressed*, and 6% who became *manic*. In addition, 4% of the children became *aggressive*. *Sleep* disorders afflicted 35% of the children, including 23% *drowsy* and 17% *insomnia*. Finally, 10% became *psychotic*.

Other studies confirm high rates of antidepressant-induced mental abnormalities, including aggression and impulsivity, in children and youth up to 18 years of age (Constantino, Liberman, & Kincaid, 1997; Go, Malley, Birmaher, & Rosenberg, 1998; Jain, Birmaher, Garcia, Al-Shabbout, & Ryan, 1992; King et al., 1991; Riddle et al.,

1990–1991). A controlled clinical trial found that fluoxetine caused a 6% rate of mania in depressed children and youngsters ages 7 to 17 (Emslie et al., 1997).

Causation in FDA Warnings for Children, Youth, and All Adults

The federal regulations that govern the warnings sections in drug labels dictate that the inclusion of these adverse reactions must be based on "reasonable evidence of a causal association with a drug" (Code of Federal Regulations, 2008, p. 29). The FDA confirmed that the array of stimulant-like or activation symptoms associated with the antidepressants was in fact caused by the drugs when it referred to "certain behaviors *known* to be associated with these drugs, such as anxiety, agitation, panic attacks, insomnia, irritability, hostility, impulsivity, akathisia (severe restlessness), hypomania, and mania" (FDA, 2004a, p. 1, emphasis added).

Case Examples

Case reports have led to most FDA changes in labels and to most withdrawals of psychiatric drugs from the market and are a mainstay in the FDA for evaluating adverse drug reactions (Breggin, 2008a; FDA, 1993, 1996; Government Accounting Office, 1990). The FDA itself described principles for determining causation from clinical reports (now called adverse event reports) in a table titled "Useful Factors for Assessing *Causal* Relationship Between Drug and Reported Adverse Event" (FDA, 1996, p. 6, emphasis added; for similar criteria for determining causation, see also Bailey, Gordis, & Green, 1994).

In my clinical and forensic practice, I have evaluated more than 100 cases of violence, suicide, crime, and mania induced by psychiatric medications, especially the newer antidepressants, often in combination with antianxiety agents, especially alprazolam. Fifty of these cases are presented in depth in *Medication Madness* (Breggin, 2008b). In these 50 cases, the suicidal, violent, or criminal behaviors were unprecedented and out of character. Recidivism was zero after the medications were stopped.

In these cases, victims of drug-induced abnormal mental states and behavior almost never recognized that they were acting irrationally or that they were under the influence of their psychiatric drugs. This led me to formulate the concept of medication spellbinding (intoxication anosognosia)—the concept that psychoactive substances reduce the individual's capacity to appreciate mental and behavioral adverse reactions and can lead to uncharacteristic abnormal behaviors, including violence and suicide (Breggin, 2006, 2008a, 2008b).

Antidepressant-Induced Reactions That Result in Suicide and Violence

The various antidepressant-induced clinical syndromes and reactions associated with suicide and violence have been reviewed elsewhere (e.g., Breggin, 2003; 2008a, 2008b; Teicher, Glod, & Cole, 1990, 1993). Some of the associated syndromes or adverse reactions include (a) anxiety and agitation with or without hyperactivity (akathisia); (b) worsening or agitated depression; (c) compulsive suicidality; (d) irritability, hostility, and aggressiveness; (e) apathy and indifference; (f) behavioral dyscontrol or impulsivity; and (g) mania and psychosis.

Lack of Efficacy

While it is relatively easy to prove that antidepressants frequently cause serious and life-threatening harm, it remains difficult to prove their effectiveness. In order to obtain FDA approval, pharmaceutical companies can cherrypick their studies in order to find two that show some effectiveness. However, when all adult controlled clinical trials, including those that fail to prove efficacy, are pooled in a meta-analysis, antidepressants do not prove effective (Kirsch et al., 2008; Moncrieff & Kirsch, 2005). Meanwhile, studies of children and youth almost uniformly fail to show effectiveness (Whittington, Kendall, Fonagy, Cottrell, & Boddington, 2004 [ages 5–18]; Jureidini et al., 2004; Tonkin & Jureidini, 2005; studies reviewed in Breggin, 2008a).

CONCLUSION

Controlled clinical trials, epidemiological studies, and clinical reports confirm that the SSRIs and other stimulating antidepressants cause suicidality, aggression, and mania in children and adults of all ages. Young adults aged 18 to 24 (the age of many soldiers) may be especially at risk for antidepressant-induced suicidality. There is a strong probability that the increasing suicide rates among active-duty soldiers are in part caused or exacerbated by the widespread prescription of antidepressant medication. By themselves, these drugs cause a dangerous stimulant-like profile of adverse reactions. These symptoms of activation can combine adversely with similar PTSD symptoms found so commonly in soldiers during and after combat.

The military should study the relationship between psychiatric drug treatment and suicide as well as random or personal violence.

The military should rely on the psychological and educational programs that are currently in use and under development for preventing suicide and ameliorating stress among service members (e.g., Department of Defense, 2010). Antidepressants should be avoided in the treatment of military personnel.

BIBLIOGRAPHY

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Aursnes, I., Tvete, I., Gassemyr, J., & Natvig, G. (2005). Suicide attempts in clinical trials with paroxetine randomized against placebo. *BMC Medicine, 3*, 1–5.

Bailey, L., Gordis, L., & Green, M. (1994). Reference guide on epidemiology. In *Federal Judicial Center's reference manual on scientific evidence* (pp. 122–179). St. Paul, MN: West.

Breggin, P. (1993). Suicidality, violence and mania caused by selective serotonin reuptake inhibitors (SSRIs): A review and analysis. *Ethical Human Sciences and Services, 5*, 225–246.

Breggin, P. (2006). Intoxication anosognosia: The spellbinding effect of psychiatric drugs. *Ethical Human Psychology and Psychiatry, 8*, 201–215.

Breggin, P. (2008a). *Brain-disabling treatments in psychiatry: Drugs, electroshock and the psychopharmaceutical complex* (2nd ed.). New York: Springer Publishing.

Breggin, P. (2008b). *Medication madness: The role of psychiatric drugs in cases of violence, suicide, and crime*. New York: St. Martin's Press.

Breggin, P. (2009, May 2). *Does psychiatric medication increase the risk and prevalence of suicide?* Paper presented at the 17th Annual International Military and Combat Stress Conference, Los Angeles, CA.

Breggin, P. (2010a, May 1). *The hazards of psychiatric drugs*. Paper presented at the 18th Annual International Military and Combat Stress Conference, Los Angeles, CA.

Breggin, P. (2010b, February 24). Testimony before the U.S. House of Representatives, Veterans Affairs Committee, *Hearings on Exploring the Relationship Between Medication and Veteran Suicide*, Chaired by Bob Filner (D-CA). Available: http://www.breggin.com

Breggin, P., & Breggin, G. (2004). *Talking back to Prozac*. New York: St. Martin's Press.

Code of Federal Regulations. (2008). Title 21, Volume 4, (21CFR201.57) Warnings and precautions. Revised as of April 1, 2008, from the U.S. Government Printing Office via GPO Access.

Constantino, J., Liberman, M., & Kincaid, M. (1997). Effects of serotonin reuptake inhibitors on aggressive behavior in psychiatric hospitalized adolescents: Results of an open trial. *Journal of Child and Adolescent Psychopharmacology, 7*, 31–44.

Department of Defense. (2010). *Hooah 4 health*. Retrieved March 3, 2010, from http://www.hooah4health.com/4you/default.htm

Donovan, S., Clayton, A., Beeharry, M., Jones, S., Kirk, C., Waters, K., et al. (2000). Deliberate self-harm and antidepressant drugs: Investigation of a possible link. *British Journal of Psychiatry, 177*, 551–556.

Donovan, S., Kelleher, M., Lambourn, J., & Foster, T. (1999). The occurrence of suicide following the prescription of antidepressant drugs. *Archives of Suicide Research, 5*, 181–192.

Ebert, D., Albert, R., May, A., Merz, A., Murata, H., Stosiek, I., et al. (1997). The serotonin syndrome and psychosis-like side effects of fluvoxamine in clinical use—An estimation of incidence. *European Neuro-Pharmacology, 7*, 71–74.

Emslie, G. J., Rush, A. J., Weinberg, W. A., Kowatch, R. A., Hughes, C. W., Carmody, T., et al. (1997). A double-blind, randomized, placebo-controlled trial of fluoxetine in children and adolescents with depression. *Archives of General Psychiatry, 54*, 1031–1037.

Fergusson, D., Doucette, S., Glass, K., Shapiro, S., Healy, D., Hebert, P., et al. (2005). Association between suicide attempts and selective serotonin reuptake inhibitors: A systematic review of randomized controlled clinical trials. *British Medical Journal, 330*, 396–403.

Fisher, S., Bryant, S., & Kent, T. (1993). Postmarketing surveillance by patient self-monitoring: Trazodone versus fluoxetine. *Journal of Clinical Psychopharmacology, 13*, 235–242.

Fisher, S., Kent, T., & Bryant, S. (1995). Postmarketing surveillance by patient self-monitoring: Preliminary data for sertraline versus fluoxetine. *Journal of Clinical Psychiatry, 56*, 288–296.

Food and Drug Administration. (1991, September 20). *Transcript of Psychopharmacologic Drugs Advisory Committee: 34 Meeting*. Rockville, MD: Author.

Food and Drug Administration. (1993, September). *Monitoring adverse drug reactions: The FDA's new MEDWatch program*. Rockville, MD: Author.

Food and Drug Administration. (1996, June). *The clinical impact of adverse event reporting*. Rockville, MD: Center for Drug Evaluation and Research.

Food and Drug Administration. (2004a, March 22). *FDA issues Public Health Advisory on cautions for use of antidepressants in adults and children*. Rockville, MD: Author.

Food and Drug Administration. (2004b, October 15). *FDA public health advisory: Suicidality in children and adolescents being treated with antidepressant medication*. Rockville, MD: Author.

Frankenfield, D., Baker, S. Lange, W., Caplan, Y., & Smialek, J. (1994). Fluoxetine and violent death in Maryland. *Forensic Science International, 64*, 107–117.

Ghaemi, S., Boiman, E., & Goodwin, F. (2002). Diagnosing bipolar disorder and the effect of antidepressants: A naturalistic study. *Journal of Clinical Psychiatry, 61*, 804–808.

GlaxoSmithKline. (2006, May). *Dear Healthcare Professional: Important prescribing information* [regarding Paxil-induced suicidality]. Philadelphia: Author.

Go, E., Malley, E., Birmaher, B., & Rosenberg, D. (1998). Manic behaviors associated with fluoxetine in three 12–18-year-olds with obsessive-compulsive disorder. *Journal of Child and Adolescent Psychopharmacology, 8,* 73–80.

Government Accounting Office. (1990, April). *FDA drug review: Postapproval risks 1976–1985* (Report to the Chairman No. GAO/PEMD900-15). Washington, DC: Subcommittee on Human Resources and Intergovernmental Relations.

Hammad, T., Laughren, T., & Racoosin, J. (2006). Suicidality in pediatric patients treated with antidepressant drugs. *Archives of General Psychiatry, 63,* 332–339.

Healy, D. (2000). Emergence of antidepressant induced suicidality. *Primary Care, 6,* 23–28.

Healy, D., Herxheimer, A., & Menkes, D. (2006). Antidepressants and violence: Problems at the interface of medicine and law. *PLoS Medicine, 3,* 1478–1487.

Henry, C., Sorbara, F., Lacoste, J., Gindre, C., & Leboyer, M. (2001). Antidepressant-induced mania in bipolar patients: Identification of risk factors. *Journal of Clinical Psychiatry, 62,* 249–255.

Hoehn-Saric, R., Lipsey, J., & McLeod, D. (1990). Apathy and indifference in patients on fluvoxamine and fluoxetine. *Journal of Clinical Psychopharmacology, 10,* 343–345.

Howland, R. (1996). Induction of mania with serotonin reuptake inhibitors. *Journal of Clinical Psychopharmacology, 16,* 425–427.

Jain, J., Birmaher, B., Garcia, M., Al-Shabbout, M., & Ryan, N. (1992). Fluoxetine in children and adolescents with mood disorders: A chart review of efficacy and adverse reactions. *Journal of Child and Adolescent Psychopharmacology, 2,* 259–265.

Jick, S., Dean, A., & Jick, H. (1995). Antidepressants and suicide. *British Medical Journal, 310,* 215–218.

Jureidini, J., Doecke, C., Mansfield, P., Haby, M., Menkes, D., & Tonkin, A. (2004). Efficacy and safety of antidepressants for children and adolescents. *British Medical Journal, 328,* 879–883.

Jurrlink, D., Mamdani, M., Kopp, A., & Redelmeier, D. (2006). The risk of suicide with selective serotonin reuptake inhibitors in the elderly. *American Journal of Psychiatry, 163,* 813–821.

King, R. A., Riddle, M. A., Chappell, P. B., Hardin, M. T., Anderson, G. M., Lombroso, P., et al. (1991). Emergence of self-destructive phenomena in children and adolescents during fluoxetine treatment. *Journal of the American Academy of Child and Adolescent Psychiatry, 30,* 179–186.

Kirsch, I., Deacon, B. J., Huedo-Medina, T. B., Scoboria, A., Moore, T. J., & Johnson, B. T. (2008). Initial severity and antidepressant benefits: A meta-analysis of data submitted to the food and drug administration. *PLoS Medicine, 5*(2), e45 EP.

Levy, D., Kimhi, R., Barak, Y., Aviv, A., & Elizur, A. (1998). Antidepressant-associated mania: A study of anxiety disorder patients. *Psychopharmacology, 136,* 243–246.

Ljung, R., Bjorkenstam, C., & Bjorkenstam, E. (2008). Ethic differences in antidepressant treatment preceding suicide in Sweden. *Psychiatric Services, 59,* 116–117.

Lorge, E. (2008, January 31). *Army responds to rising suicide rates.* Retrieved February 9, 2010, from http://www.army.mil/-news/2008/01/31/7222-army-responds-to-rising-suicide-rates

Marangell, L., Silver, J., Goff, D., & Yudofsky, S. (2003). Pharmacology and electroconvulsive therapy. In R. Hales & S. Yudofsky (Eds.), *The American Psychiatric Publishing textbook of clinical psychiatry* (4th ed., pp. 1047–1149). Washington, DC: American Psychiatric Press.

Martin, A., Young, C., Leckman, J., Mukonoweshuro, C., Rosenheck, R., & Leslie, D. (2004). Age effects on antidepressant-induced manic conversion. *Archives of Pediatric and Adolescent Medicine, 158,* 773–780.

Moncrieff, J., & Kirsch, I. (2005). Efficacy of antidepressants in adults. *British Medical Journal, 331*, 155–157.

Morishita, S., & Arita, S. (2003). Induction of mania in depression by paroxetine. *Human Psychopharmacology, 18*, 565–568.

Physicians' Desk Reference, Inc. (2009). *Physicians' desk reference*. Montvale, NJ: Author.

Preda, A., MacLean, R., Mazure, C., & Bowers, M. (2001). Antidepressant-associated mania and psychosis resulting in psychiatric admission. *Journal of Clinical Psychiatry, 62*, 30–33.

Raja, M., Azzoni, A., & Koukopoulos, A. (2009). Psychopharmacological treatment before suicide attempt among patients admitted to a psychiatric intensive care unit. *Journal of Affective Disorders, 113*, 37–44.

Riddle, M., King, R., Hardin, M., Scahill, L., Ort, S., Chappell, P., et al. (1990–1991). Behavioral side effects of fluoxetine in children and adolescents. *Journal of Child and Adolescent Psychopharmacology, 1*, 193–198.

Stone, M., Laughren, T., Jones, M., Levenson, M., Holland, P., Hughes, A., et al. (2009). Risk of suicidality in clinical trials of antidepressant in adults: Analysis of proprietary data submitted to U.S. Food and Drug Administration. *British Medical Journal*, 339, b2880, doi:10.1136/bmj.b2880.

Teicher, M., Glod, C., & Cole, J. (1990). Emergence of intense suicidal preoccupations during fluoxetine treatment. *American Journal of Psychiatry, 147*, 207–210.

Teicher, M., Glod, C., & Cole, J. (1993). Antidepressant drugs and the emergence of suicidal tendencies. *Drug Safety*, 8(3), 186–212.

Thompson, M. (2009, June 5). America's medicated army. Retrieved February 9, 2010, from http://www.time.com/time/nation/article/0,8599,1811858,00.html

Tonkin, A., & Jureidini, J. (2005). Editorial: Wishful thinking: Antidepressant drugs in childhood depression. *British Journal of Psychiatry, 187*, 304–305.

Valenstein, M., Kim, H., Ganoczy, D., McCarthy, J., Zivin, K., Austin, K., et al. (2009). Higher-risk periods of suicide among VA patients receiving depression treatment: Prioritizing suicide prevention efforts. *Journal of Affective Disorders, 112*, 50–58.

Whittington, C., Kendall, T., Fonagy, P., Cottrell, D., & Boddington, E. (2004). Selective serotonin reuptake inhibitors in childhood depression: Systematic review of published versus unpublished data. *Lancet, 363*, 1341–1345.

Wilens, T., Biederman, J., Kwon, A., Chase R., Greenberg, L., Mick, E., et al. (2003). A systematic chart review of the nature of psychiatric adverse events in children and adolescents treated with selective serotonin reuptake inhibitors. *Journal of Child and Adolescent Psychopharmacology, 13*, 143–152.

Acknowledgments. This article was written as background material for Dr. Breggin's testimony before the U.S. House of Representatives, Veterans Affairs Committee, Hearings on "Exploring the Relationship Between Medication and Veteran Suicide," Chaired by Bob Filner (D-CA), February 24, 2010. Video of the entire hearing can be retrieved at http://www.breggin.com.

Peter R. Breggin, MD, is a psychiatrist in private practice in Ithaca, New York, and cofounder of this journal with his wife Ginger. He is an adjunct professor in the Department of Counseling at the State University of New York, Oswego, and the founder and director of the Empathic Therapy Center (http://www.empathictherapy.org). Dr. Breggin is the author of many scientific articles and more than 20 books, including *Toxic Psychiatry*, *Talking Back to Prozac* (with Ginger Breggin), the

Ritalin Fact Book, Brain-Disabling Treatments in Psychiatry, and *Medication Madness: The Role of Psychiatric Drugs in Cases of Violence, Suicide and Crime*. His most recent book is *Wow, I'm an American! How to Live Like Our Nation's Heroic Founders*. Dr. Breggin's professional Web site is http://www.breggin.com/.

Correspondence regarding this article should be directed to Peter R. Breggin, MD, 101 East State Street, No. 112, Ithaca, NY 14850. E-mail: psychiatricdrugfacts@hotmail.com