

Inside

- 2 Moving Forward
Monifa Seawell, M.D.
- 3 A Multidisciplinary
Interactive Approach to
Bridging the Technological
Divide in Medical Education
Aparna Atluru
- 5 The Difficult Task of
Identifying and Treating
Depression in Patients With
Alzheimer's Dementia
Katherine Blackwell, M.D., Ph.D.
- 8 Hypothermia Induced
by Olanzapine and
Risperidone in a Patient
With Schizophrenia and
Dementia: Diagnostic
and Pathophysiologic
Considerations
Kapila Marambage, M.D.
Danijela Ivelja-Hill, M.D.
Hector Diez-Caballero, M.D.
- 10 Hearts and Minds: Popular
Perceptions of Violence and
Mental Illness and Strategies
to Combat Stigma
Christina T. Khan, M.D., Ph.D.
Michael A. Ketteringham,
M.D., M.P.H.
Michael J. Yao, M.D., M.P.H.
- 13 Psychodynamic
Psychotherapy: A Clinical
Manual
Basant Pradham, M.D.
Michael Ascher, M.D.
- 14 Test Your Knowledge
- 15 Author Information
- 15 Upcoming Issue Themes

In This Issue



This issue of the *Residents' Journal* highlights a variety of topics. Aparna Atluru discusses how digital interactive media can be beneficial in medical education. Katherine Blackwell, M.D., Ph.D., provides an overview of the challenges in diagnosing and treating depression in Alzheimer's dementia. Kapila Marambage, M.D., Danijela Ivelja-Hill, M.D., and Hector Diez-Caballero, M.D., follow with a case report of a patient who presented with hypothermia induced by antipsychotic treatment. Christina T. Khan, M.D., Ph.D., Michael A. Ketteringham, M.D., M.P.H., and Michael J. Yao, M.D., M.P.H., examine media influence on public perception of mental illness and violence. Lastly, Basant Pradham, M.D., and Michael Ascher, M.D., review *Psychodynamic Psychotherapy: A Clinical Manual*.

Editor-in-Chief
Monifa Seawell, M.D.

Senior Editor
Sarah M. Fayad, M.D.

Associate Editor
Arshya Vahabzadeh, M.D.

Editors Emeriti
Sarah B. Johnson, M.D.
Molly McVoy, M.D.
Joseph M. Cerimele, M.D.

Staff Editor
Angela Moore

Editorial

Moving Forward

Monifa Seawell, M.D.
Editor-in-Chief

The *Residents' Journal* has come a long way since its birth in 2006. The size of the Journal has expanded, and the variety and types of manuscripts we feature have multiplied. The Journal now has a well-established peer review process. We are able to offer many exciting ways for trainees to become involved. Dedicated authors consistently submit high-quality, well-written, informative manuscripts that educate our readers. With all the positive growth the Journal has experienced over the past 6 years, making the Journal both easily and reliably accessible has long been at the top of our priority list.

We are thrilled to announce that the *Residents' Journal* is now housed on the *American Journal of Psychiatry* (AJP) homepage (<http://ajp.psychiatryonline.org>).

At the top of the home page (among the green labeled tabs), you will find a tab titled "Residents' Journal"; click on it, and you will be directed to a page that contains a link to the current issue, as well as links to all past issues dating back to 2006. We are excited that dedicated readers like you will have reliable access to both current and past issues.

The *Residents' Journal* is also now on Facebook. Find us at <https://www.facebook.com/AJPResidentsJournal>. We encourage you to post any comments, questions, or ideas you may have on our wall. You may also send us a confidential message. We hope that the Journals' Facebook page will serve as a medium for our readers to exchange ideas and engage in discussion, as well as provide increased access to the editorial staff.

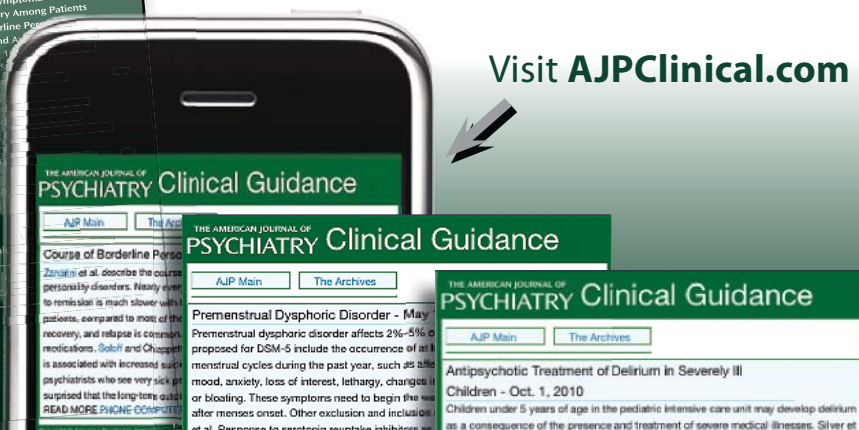
I am proud of the tremendous progress the *Residents' Journal* continues to make and believe that increased access will allow you to make it one of your key educational resources.

A Daily "Pearl" is Just a Click Away!



The Editors of *The American Journal of Psychiatry* have developed a special mobile-optimized website that displays a single bit of *Clinical Guidance* every day gleaned from research published on the pages of the *Journal*. Users can click through to the main article or explore an archive of all previously prepared *Clinical Guidance* pieces arranged by topic.

Visit AJPClinical.com



A Multidisciplinary Interactive Approach to Bridging the Technological Divide in Medical Education

Aparna Atluru

The Dearth of Digital Interactive Media and the Need for Innovation

Traditional lecture-based curricula are quickly becoming outdated in the new generation of medicine, one in which rapid technological advances make up much of medical practice. As more knowledge is gathered and stored in the canon of medicine, a swift way of integrating this knowledge and transforming it into sound medical practice is necessary for medical students and residents (1). Indeed, it may seem difficult to transition from a predominantly lecture-based curriculum to a digital interactive curriculum (2). This is in part true because many of the faculty and researchers in educator roles have not been trained in the use of digital interactive programs, and thus it is difficult for some of these educators to develop a digital interactive curriculum for their students. However, integrating digital technology into the education of students and residents is worthwhile and has many advantages. These include engaging a new

generation of students and use of material at the discretion of the learner, the ability of the learner to strengthen only the skills he or she finds deficient, and the ability to receive real-time feedback without an instructor being present.

Strategic Approaches to Development of Digital Interactive Media

In a study published by the *World Journal of Pediatrics* (3), a group of physicians and educators created an interactive DVD that employed animation to chronicle pediatric milestones and subsequently used this DVD as a teaching tool for pediatric residents. The 37 residents in the intervention group acquired significantly more knowledge than the 17 residents in the comparison group, who learned through traditional paper-based materials. The mean scores at the three knowledge assessments in the intervention group doubled from the baseline scores, while no statistical difference was observed in the comparison group.

This educational DVD was produced in a university setting, which provided several benefits, such as the ability to use a multidisciplinary team in development, the reduced production cost (in comparison to hiring outside consultants), and the ability to receive feedback from various levels of teachers and learners prior to completion. Various disciplines at a teaching institution can benefit from the use of digital interactive teaching methods. The fields that most require a multidimensional understanding of core topics would especially benefit from this approach.

Psychiatry and Advantages of the Digital Interactive Media Experience

Psychiatry in particular could be greatly aided by the multimedia digital media approach. The biological, psychological, and social aspects of psychiatric treatment form the fundamentals of this multidimensional field, and as such, a comprehensive approach is necessary to effectively convey the various facets

CALL FOR PAPERS

The Residents' Journal is soliciting manuscripts on **DSM**

Suggested topics are:

- The origin, history, and evolution of DSM;
- Proposed changes to diagnostic schema for substance use disorders, paraphilias, and other disorders in DSM-5;
- A comparison/contrast of the DSM and ICD system; and
- DSM and cross-cultural psychiatry

**Please note that we will consider manuscripts outside the suggested topic.*

of psychiatry to trainees (4). Patients do not pause in order for students to thoroughly interpret the disorders with which they present. However, by using interactive media (which allows trainees to pause until they have understood a concept and then press “go” when they want to return to the session), trainees can return to, pore over, and classify and reclassify psychiatric presentations in real time (5).

One example of how interactive digital media could be useful in the learning experiences of trainees is through a virtual catalog of psychiatric disorders. The presentation of disorders can be easily presented using movie clips (6, 7). Movie clips representing different categories that display a range of disorders would aid trainees seeking to understand the fine gradations of difference among a spectrum of related psychiatric disorders.

Animated characters can also be helpful in portraying different behaviors that evolve over a period of time, such as behaviors in child development. This type of interactive educational material has been used to

teach developmental milestones, demonstrating better comprehension in learners, compared with traditional teaching (3).

Conclusions

Encouragement of digital educational interactive productions at teaching institutions should be considered a priority. Inviting students to participate in didactic creation processes would serve to further expand this innovative approach to teaching, helping to keep the approach relevant and modern. The results of creating university-based digital interactive products aid both creators and learners and can successfully transition lecture-based curricula into technologically and didactically advanced medical teaching tools.

At the time this article was accepted for publication, Aparna Athuru was affiliated with Texas Tech University Health Sciences Center, Paul L. Foster School of Medicine, El Paso, Tex. The author thanks Drs. Marie Leiner and Dan Blunk, also affiliated with the Department of Psychiatry at the Paul L. Foster School of Medicine, for their assistance with this article.

References

1. Elkind MS: Teaching the next generation of neurologists. *Neurology* 2009; 72:657–663
2. Appaji AC, Kulkarni R, Poojar A, Vinayagam K: Teaching anatomy with digital self-learning modules. *Med Educ* 2010; 44:525–526
3. Leiner M, Krishnamurthy GP, Blanc O, Castillo B, Medina I: Comparison of methods for teaching developmental milestones to pediatric residents. *World J Pediatr* 2011; 7:161–166
4. Stergiopoulos V, Maggi J, Sockalingam S: Teaching the physician-manager role to psychiatric residents: development and implementation of a pilot curriculum. *Acad Psychiatry* 2009; 33:125–130
5. Ballou B, Silver I: Context is key: an interactive experiential and content frame game. *Med Teach* 2004; 26:525–528
6. Alexander M: The couple's odyssey: Hollywood's take on love relationships. *Int Rev Psychiatry* 2009; 21:183–188
7. Walter G, McDonald A, Rey JM, Rosen A: Medical student knowledge and attitudes regarding ECT prior to and after viewing ECT scenes from movies. *J Ect* 2002; 18:43–46



SUBSCRIBE

If you will be completing your residency this year, we would like your help in recruiting new subscribers by encouraging an incoming resident or fellow to subscribe to our monthly e-publication. Also, if you'd like to continue receiving e-mail notification alerts when each issue of the *AJP Residents' Journal* is published, send your new e-mail address to ajp@psych.org with the subject line "New e-mail address post-residency."

Treatment in Psychiatry

The Difficult Task of Identifying and Treating Depression in Patients With Alzheimer's Dementia

Katherine Blackwell, M.D., Ph.D.

Case

“Mr. A” was an 84-year-old married man with a history of major depressive disorder, atrial fibrillation, and hypertension. He was admitted to the hospital after he was found to be agitated and to express suicidal ideation. He reported depressed mood, anhedonia, anxiety, insomnia, decreased appetite, hopelessness, and memory problems. The patient had a long history of difficult-to-treat major depression, and his symptoms had been previously stabilized with phenelzine. He reported only recent alcohol use, consumed in order to help him sleep. During the preceding year, his functioning had declined to a degree in which he was no longer independent of his instrumental activities of daily living. His score on the Mini-Mental State Examination was 22.

Further evaluation demonstrated memory and cognitive impairments, particularly in executive functioning, supporting the diagnosis of dementia in addition to the diagnosis of major depressive disorder. Mr. A's prominent anxiety, agitation, and insomnia, which he and his family reported to be most distressing, may have represented neurocognitive symptoms of his dementia, since he had not experienced these symptoms during previous depressive episodes. The decision was made to start antidepressant therapy because he had severe impairment and suicidal ideation. Mirtazapine was chosen due to its sedative side effect to help the patient with his insomnia. He was also started on trazodone and divalproex to address both agitation and insomnia, with the plan to discontinue divalproex as the agitation improved. Prior to discharge, the patient was referred for home-based services with clinicians specializing in dementia and using behavioral, social, and pharmacologic approaches.

The patient in the above case presented with memory and cognitive impairment, as well as mood symptoms, resulting in functional decline. This suggests the presence of both dementia and depression. Most forms of dementia are associated with depression; however, as the most prevalent form of dementia, Alzheimer's dementia is the most studied. It has been estimated that approximately 30%–50% of patients with Alzheimer's dementia have either major or minor depression (with minor depression defined as the presence of depressed mood or anhedonia with fewer symptoms and impairment than that observed in major depression). Importantly, comorbid depression and dementia are associated with worse outcomes than dementia alone, including greater impairment of functioning, likelihood of transitioning to a higher level of care, and poorer quality of life for patients and caregivers (1, 2).

Depression has been associated with increased risk of Alzheimer's dementia, as reviewed by Byers and Yaffe (3). Late-life depression has been associated with increased risk for dementia in most studies (3). In some longitudinal studies, greater severity or a higher number of depressive symptoms has been associated with increasing risk for dementia. Moreover, severe depression with cognitive impairment, even when impairment improves, presents a risk for Alzheimer's dementia over 5 years, suggesting that late-life depression may represent a dementia prodrome (4). Depression before age 60 has also been associated with an estimated twofold increase in dementia risk (3). While many studies support the finding of depression as a risk factor, there is heterogeneity in the results, which is likely attributable to differences in methodology, duration of follow-up analyses, and the population studied.

Diagnosis

Although often comorbid, it can be difficult to differentiate between late-life depression and dementia (1). Both depression and dementia may be accompanied by anxiety, sleep disturbances, impaired concentration, psychomotor manifestations, and psychosis. Furthermore, depressive symptoms in patients with dementia may represent adjustment disorder in response to the changes in functioning or transitioning to higher levels of care as a result of the illness. Apathy is a common feature of dementia and can cause a person to appear depressed because of a lack of emotional responsiveness, making it difficult to distinguish between the depressive symptoms of anhedonia and the loss of interest in pleasurable activities (5). It has been proposed that if a patient is distressed by his or her lack of emotional responsiveness, this may represent anhedonia and depression rather than apathy (5). Other neurocognitive phenomena associated with dementia that may be confused with depressive symptoms are pseudobulbar affect, abulia, and catastrophic reaction.

Several factors may also influence the recognition of depression in patients with Alzheimer's dementia (1). Aphasia may limit the ability of a patient to express distress, making it difficult to distinguish between depression and apathy. Additionally, the involvement of caregivers in the reporting of symptoms may influence the recognition of depression in patients with this form of dementia. Although caregivers may be more reliable in reporting behaviors that are suggestive of depression, they may also overestimate depression in interpreting aspects of dementia as depression or in projection of their own mood onto the patient.

As a result of the difficulty in diagnosing depression in patients with dementia, several symptom rating scales and diagnostic criteria have been developed. The Geriatric Depression Scale was created using symptoms that are more specific to symptoms of depression, rather than to somatic symptoms that may reflect medical illnesses in elderly people. The disadvantage of this instrument is that it relies on self-report, and it is not specific to depression in the setting of dementia. The Cornell Scale for Depression in Dementia is a commonly used instrument that has the advantage of incorporating both patient and caregiver reports. The Neuropsychiatric Inventory screens for a number of neurobehavioral symptoms that are common in dementia; however, it is administered to the caregiver rather than the patient.

Since clinical experience suggests that there may be differences between the depression experienced by cognitively intact individuals and the depression experienced by those with dementia, the National Institute of Mental Health (NIMH) established the Provisional Diagnostic Criteria for Depression in Alzheimer's Disease. These NIMH criteria differ from those of DSM-IV in several ways. The number of symptoms is decreased from five to three; however, the criteria still require either depressed mood or anhedonia. Furthermore, irritability and social isolation or withdrawal are added as criteria, and loss of interest is removed. These criteria were created to better define clinical populations, with improved consistency between studies, although use of the criteria in clinical populations has been limited.

In cases of uncertainty, neuropsychiatric testing is the gold standard in differentiating between depression and dementia. Both disorders may demonstrate deficits in memory, but overall, cognitive impairment is worse in dementia (6). Depression is associated with impairment in attention and executive functioning, but unlike patients with dementia, depressed patients usually retain learned information (6). It has been proposed that some of the deficits associated with depression

result from decreased motivation or effort in performing tasks (7).

Treatment

Identification of effective treatments to limit poor outcomes for depression in the setting of Alzheimer's dementia is of interest to researchers. In a recent meta-analysis, Nelson and Devanand (8) evaluated the available randomized controlled trials of antidepressant treatment. The seven studies that met inclusion criteria were underpowered, and there was significant variation in the methodology and class of antidepressants used. Of these seven trials, only two reported positive effects of antidepressant treatment compared with placebo, with clomipramine used in one study and sertraline used in the other (the pilot Depression in Alzheimer's Disease Study). Nelson and Devanand concluded that the efficacy of antidepressant treatment in patients with dementia and depression is only suggestive.

There have been two large studies of the efficacy of antidepressant treatment for depression in Alzheimer's dementia. Following the positive results reported in the Depression in Alzheimer's Disease Study, a follow-up study examined the efficacy of sertraline treatment in a larger population of patients with Alzheimer's disease and major or minor depression (9, 10). This follow-up study was the first clinical trial to use the NIMH Provisional Diagnostic Criteria for Depression in Alzheimer's Disease. However, the study failed to replicate the positive results of the previous pilot study, and sertraline was not found to be superior to placebo at 12 or 24 weeks of treatment as indicated by a modified global impression of change index and Cornell Scale for Depression score (9, 10). Subsequent analysis of these results did not demonstrate any effect of differences in sertraline response dependent on depression severity (11). The Health Technology Assessment Study of the Use of Antidepressants for Depression in Dementia compared the effect of sertraline, mirtazapine, and placebo in patients with probable or possible Al-

zheimer's disease who had depression lasting at least 4 weeks and an elevated score on the Cornell Scale for Depression. There was no effect of either antidepressant on the participants' scores at 13 and 39 weeks (12).

The efficacy of other treatment modalities is unknown. In both the follow-up Depression in Alzheimer's Disease Study and Health Technology Assessment Study of the Use of Antidepressants for Depression in Dementia, all participants received nonpharmacologic interventions, and improvements in the primary outcome measures were demonstrated in both placebo and active treatment arms. This suggests that while pharmacotherapy may have limited efficacy, psychosocial interventions may be effective. ECT performed on patients with dementia is a concern because of possible adverse cognitive effects. However, case reports have suggested that ECT can be useful for selected patients with dementia and severe, refractory mood disturbances (13). There is no evidence of worsening dementia related to ECT, and there are some reports of cognitive improvement as depression improves.

In response to the negative results of the Health Technology Assessment Study of the Use of Antidepressants for Depression in Dementia and follow-up Depression in Alzheimer's Disease Study, a new treatment strategy has been recommended (14, 15). The first step is implementation of psychosocial interventions. While this likely contributed to the improvement of symptoms in these more recent trials, it is unclear which nonpharmacologic treatments were most effective. Failure of psychosocial interventions or moderate-to-severe depression, nonetheless, would still merit a trial of antidepressant therapy.

Dr. Blackwell is a second-year resident in the Department of Psychiatry, Yale University School of Medicine, New Haven, Conn.

References

1. Lee HB, Lyketsos CG: Depression in Alzheimer's disease: heterogeneity and related issues. *Biol Psychiatry* 2003; 54:353-362

2. Espiritu DA, Rashid H, Mast BT, Fitzgerald J, Steinberg J, Lichtenberg PA: Depression, cognitive impairment and function in Alzheimer's disease. *Int J Geriatr Psychiatry* 2001; 16:1098–1103
3. Byers AL, Yaffe K: Depression and risk of developing dementia. *Nat Rev Neurol* 2011; 7:323–331
4. Blazer DG: Depression in late life: review and commentary. *J Gerontol A Biol Sci Med Sci* 2003; 58:249–265
5. Tagariello P, Girardi P, Amore M: Depression and apathy in dementia: same syndrome or different constructs? a critical review. *Arch Gerontol Geriatr* 2009; 49:246–249
6. Wright SL, Persad C: Distinguishing between depression and dementia in older persons: neuropsychological and neuropathological correlates. *J Geriatr Psychiatry Neurol* 2007; 20:189–198
7. Austin MP, Mitchell P, Goodwin GM: Cognitive deficits in depression: possible implications for functional neuropathology. *Br J Psychiatry* 2001; 178:200–206
8. Nelson JC, Devanand DP: A systematic review and meta-analysis of placebo-controlled antidepressant studies in people with depression and dementia. *J Am Geriatr Soc* 2011; 59:577–585
9. Rosenberg PB, Drye LT, Martin BK, Frangakis C, Mintzer JE, Weintraub D, Porsteinsson AP, Schneider LS, Rabins PV, Munro CA, Meinert CL, Lyketsos CG: Sertraline for the treatment of depression in Alzheimer disease. *Am J Geriatr Psychiatry* 2010; 18:136–145
10. Weintraub D, Rosenberg PB, Drye LT, Martin BK, Frangakis C, Mintzer JE, Porsteinsson AP, Schneider LS, Rabins PV, Munro CA, Meinert CL, Lyketsos CG: Sertraline for the treatment of depression in Alzheimer disease: week-24 outcomes. *Am J Geriatr Psychiatry* 2010; 18:332–340
11. Drye LT, Martin BK, Frangakis CE, Meinert CL, Mintzer JE, Munro CA, Porsteinsson AP, Rabins PV, Rosenberg PB, Schneider LS, Weintraub D, Lyketsos CG: Do treatment effects vary among differing baseline depression criteria in depression in Alzheimer's Disease Study \pm 2 (DIADS-2)? *Int J Geriatr Psychiatry* 2011; 26:573–583
12. Banerjee S, Hellier J, Dewey M, Romeo R, Ballard C, Baldwin R, Bentham P, Fox C, Holmes C, Katona C, Knapp M, Lawton C, Lindsay J, Livingston G, McCrae N, Moniz-Cook E, Murray J, Nurock S, Orrell M, O'Brien J, Poppe M, Thomas A, Walwyn R, Wilson K, Burns A: Sertraline or mirtazapine for depression in dementia (HTA-SADD): a randomised, multicentre, double-blind, placebo-controlled trial. *Lancet* 2011; 378:403–411
13. Greenberg RM, Kellner CH: Electroconvulsive therapy: a selected review. *Am J Geriatr Psychiatry* 2005; 13:268–281
14. Lenze EJ: Treating depression in older adults with dementia. *J Am Geriatr Soc* 2011; 59:754–755
15. Brodaty H: Antidepressant treatment in Alzheimer's disease. *Lancet* 2011; 378:375–376

Office of HIV Psychiatry



Do you
know how
to respond?

There are significant direct consequences to the invasion of HIV into the nervous system that may present as neurological, neuropsychiatric, and/or psychiatric syndromes and disorders. These may arise acutely and require rapid evaluation and intervention, or they may be chronic and subtle and be accompanied by physical complaints.

Know how to respond.

To learn more contact the APA Office of HIV Psychiatry.
We can help with your training and resource needs.

American Psychiatric Association • Office of HIV Psychiatry
703.907.8668 • aids@psych.org • www.psych.org/aids

Case Report

Hypothermia Induced by Olanzapine and Risperidone in a Patient With Schizophrenia and Dementia: Diagnostic and Pathophysiologic Considerations

Kapila Marambage, M.D.
Danijela Ivelja-Hill, M.D.
Hector Diez-Caballero, M.D.

Hypothermia is a severe, life-threatening condition that has been associated with the use of antipsychotic drugs, and it is traditionally defined as a drop in core body temperature less than 35°C (95°F) (1). Both typical and atypical antipsychotics have been associated with hypothermia (2). There are published case reports and case series of hypothermia with antipsychotic use. We describe a patient who was admitted to the medical intensive care unit with hypothermia while his medication regimen was being transitioned from risperidone to olanzapine.

Case

“Mr. B” was a 72-year-old male nursing home resident with a history of schizophrenia and Alzheimer’s dementia, with chronic periodic paranoia and behavioral problems. He was previously treated with different antipsychotics. Most recently, his symptoms were stabilized with risperidone. He began to experience muscle rigidity and was subsequently transitioned from risperidone to olanzapine by his psychiatrist. Two days prior to admission, he had complained of fatigue, and his caregivers noted an increased level of confusion. At the time of presentation, he was on a regimen of both risperidone (1 mg twice daily) and olanzapine (2.5 mg by mouth in the morning and 5 mg by mouth at bedtime) (olanzapine was added while risperidone was being tapered down).

On examination, the patient was shivering, and his core body temperature was 93°F (33.8°C). He was confused and had a leisurely response to stimuli, with poor muscle coordination. Examination of his skin revealed no evidence of burns, rashes, or erythroderma. The patient was

hemodynamically stable, and examination of his heart, lungs, and abdomen was unremarkable. CNS examination was significant for confusion, but no focal neurological signs were elicited.

As potential causes of hypothermia, dermatological conditions such as erythroderma, hypothyroidism, hepatic encephalopathy, uremia, sepsis, and CNS diseases were considered.

To exclude other potential causes of hypothermia, the laboratory workup consisted of a comprehensive metabolic panel, calcium and phosphate level assessment, complete blood count with differential thyroid function test, and urine analysis. ECG revealed normal sinus rhythm without ischemic changes or Osborn waves. Osborn waves (also known as J waves) are abnormal upward deflections occurring at the junction of the QRS complex and the S-T segment and are characteristic of hypothermia (3). CT scan of the brain revealed no structural damage and excluded stroke.

Antipsychotic treatment was discontinued because other feasible causes of hypothermia had been ruled out, and the clinical team believed a causal relationship existed between the antipsychotics and the patient’s low body temperature. Mr. B’s hypothermia was treated with the use of warm intravenous fluids and electric blankets. The hypothermia resolved within 48 hours, and the patient was managed in the medical intensive care unit and recovered fully after several days.

Discussion

Hypothermia can be caused by accidental cold exposure or dysfunction of hypothalamic thermoregulation (4). Clinically, it is categorized into mild (32.2°C–35°C), moderate (28°C–32.2°C), and severe (<28°C) cases (5). In its mild form, hypothermia presents with an initial excitation phase to combat cold, which results in hypertension, shivering, tachycardia, tachypnea, and vasoconstriction and later with onset of fatigue, apathy, ataxia, cold diuresis (due to loss of renal concentrating ability), and impaired judgment (5).

Core body temperature is set by the thermoregulatory center of the hypothalamus and is influenced by dopamine, norepinephrine, serotonin, and alpha adrenergic receptors (6). Disturbed thermoregulation has been demonstrated in schizophrenia. Disturbance in thermoregulation is probably caused by a combination of impaired heat loss through peripheral vasodilatation and a disruption of the mesolimbic dopamine system leading to a central dysregulation (7). The components of thermoregulation include heat production, heat conservation, heat loss effectors and their efferent pathways, and thermo sensors and their afferent pathways (8). Medication may act on any component of the thermoregulatory system to alter body temperature (8).

According to a review by van Marum et al. (9), in the World Health Organization database in Jan 2007, there were 480 registered reports of patients developing hypothermia during the course of antipsychotic treatment. Atypical antipsychotics were used in 55% of the reported cases; of these, risperidone accounted for 27%. The high-risk stage for hypothermia seems to be the period shortly after starting antipsychotic treatment or a dose increase

(9). Antipsychotics induce hypothermia through at least three mechanisms: 1) central inhibition of shivering, 2) central action on the hypothalamus, and 3) peripheral vasodilation (10). Atypical antipsychotics exert their action through antagonism at dopamine and serotonin receptors. Serotonin (5-HT) is involved in both central and peripheral aspects of thermoregulation. Dopamine has been implicated in thermoregulation by a central effect on the hypothalamus. It has been postulated that under normal conditions, there is a balance between dopamine acting to reduce body temperature and serotonin acting to elevate body temperature (11). Atypical antipsychotics appear to have a higher affinity to antagonize the 5-HT₂ receptor and less affinity at the D₂ receptor, thus creating an imbalance favoring a decrease in core body temperature (12). Alpha-2 blockade also contributes by inhibiting peripheral responses to body cooling. Neuroleptic malignant syndrome is theorized to be caused by the opposite imbalance of increased D₂ antagonism, causing a dramatic increase in body temperature (13).

A higher frequency of mild hypothermia with senile dementia has been reported (14). In dementia, temperature dysregulation could be a consequence of hypothalamic dysfunction that can occur as a result of impaired connectivity with the hippocampus due to white matter disturbances (15).

Conclusions

In our patient, the onset of hypothermia had a close temporal relationship to antipsychotic transition and overlap. Hypothermia resolved after drug discontinuation, thus supporting a

causal relationship between the olanzapine-risperidone combination and hypothermia.

Hypothermia in patients receiving antipsychotic treatment is a serious and unpredictable adverse event that may result in hospitalization and possible death. Atypical antipsychotics with potent 5-HT_{2A} antagonism and documented incidents of hypothermia should be dosed and adjusted with caution in susceptible populations, such as elderly patients with a history of dementia.

Drs. Marambage, Ivelja-Hill, and Diez-Caballero are affiliated with the Department of Psychiatry, University of Medicine and Dentistry of New Jersey, Newark, N.J. The authors thank William Mysels, M.D., of the Veterans Affairs Medical Center, East Orange, N.J., for his assistance with this article.

References

- Weinberg AD: Hypothermia. *Ann Emerg Med* 1993; 22:104–110
- Dilsaver SC: Effects of neuroleptics on body temperature. *J Clin Psychiatry* 1988; 49:78–79
- Krantz MJ, Lowery CM: Giant Osborn waves in hypothermia. *N Engl J Med* 2005; 352:184
- Yoder E: Disorders due to heat and cold, in *Textbook of Medicine*, 5th ed. Edited by Cecil RL. Philadelphia, WB Saunders, 2004, pp 626–628
- Tarlochan F, Ramesh S: Heat transfer model for predicting survival time in cold water immersion. *Biomed Eng Appl Basis Comm* 2005; 17:159–166
- Boulant JA: Role of the preoptic anterior hypothalamus in thermoregulation and fever. *Clin Infect Dis* 2000; 31:157–161
- Terence WH, Chong A, Castle DJ: Layer upon layer: thermoregulation in schizophrenia. *Schizophr Res* 2004; 69:149–157
- Clark WG, Lipton JM: Changes in body temperature after administration of amino acids, peptides, dopamine, neuroleptics and related agents. *Neurosci Biobehav* 1985; 9:299–371
- van Marum RJ, Wegewijs MA, Loonen A, Beers E: Hypothermia following antipsychotic drug use. *Eur J Clin Pharmacol* 2007; 63:627–631
- Jackson D, White L, Moyer JH: Hypothermia, IV: study of hypothermia induction time with various pharmacological agents. *Proc Soc Exp Biol Med* 1959; 100:332–335
- Yamawaki S, Lai H, Horita A: Dopaminergic and serotonergic mechanisms of thermoregulation. *J Pharm Exp Ther* 1983; 227:383–388
- Gareri P, De Fazio P, De Fazio S, Marioglio N, Ibbadu G, De Sarro G: Adverse effects of atypical antipsychotics in the elderly. *Drugs & Aging* 2006; 23:937
- Harada H, Igarashi M, Sugae S, Okamoto K, Tsuji M, Nakajima T: A schizophrenic patient who developed extreme hypothermia after an increase in the dose of haloperidol. *Jpn J Psychiatry Neurol* 1994; 48:595–598
- Takahata T, Kaneshiro E, Kadoya Y, Tagami S: Mild hypothermia in patients with senile dementia. *Nippon Ronen Igakkai Zasshi* 1992; 29:47–53
- Gottfries CG, Balldin J, Blennow K, Brane G, Karlsson I, Regland B, Wallin A: Hypothalamic dysfunction in dementia. *J Neural Transm Suppl* 1994; 43:203–209

Hearts and Minds: Popular Perceptions of Violence and Mental Illness and Strategies to Combat Stigma

Christina T. Khan, M.D., Ph.D.
Michael A. Ketteringham, M.D., M.P.H.
Michael J. Yao, M.D., M.P.H.

The general public commonly views mentally ill persons as violent, despite scientific evidence that mental illness, when controlling for substance abuse, is more highly correlated with being a victim than a perpetrator of violence (1–3). We argue that this disparity between popular and scientific views is reinforced by representations of mental illness in print and broadcast news, cinema, television, and the Internet. Popular media provide the public with most of their information about mental illness and perpetuate the association of mental illness with violence (4). The stigma that mentally ill individuals are violent and unpredictable in turn informs mental health policy toward disease avoidance and norm enforcement (5). Misplaced policies lead to adverse outcomes for mentally ill persons and justify existing social disparities. Unfortunately, the proportion of Americans that believe mentally ill persons are violent is increasing (2). Community groups have responded with varying success to this and other stigmatized representations. In this article, we survey the data on violence and mental illness, media portrayals, and reasons for misconceptions and discuss approaches to combating stigma.

Numerous studies in the last two decades have examined the relationship of violence with mental illness, yielding mixed results. Some have identified a strong link between mental disorders and violence (6), while others have found this relationship confounded by substance abuse or socioeconomic status (7). Research into this question has been complicated by methodological difficulties and a focus on predicting attributes of mental illness that lead to violent behavior with minimal control for contributing structural and contextual factors. The most recent il-

lustration of this was analysis of data from the National Epidemiologic Survey on Alcohol and Related Conditions (7), which suggested that the incidence of violent acts committed by individuals with severe mental illness was only significantly increased among those with co-occurring substance use disorders. A reanalysis of these data based on assumptions consistent with causal modeling and attentive to spatio-temporal parameters, rather than the statistical prediction of violence adhered to by the original study design, supports a modest relationship between severe mental illness and violence and a stronger relationship between severe mental illness with comorbid substance use and violence (8).

One cause for growing interest in this topic over the last few decades has been the deinstitutionalization of large mentally ill populations and their visible influx into communities unprepared to accept them. Research over this period finds no increase in violence perpetrated by the mentally ill; rather, the opposite appears to be true: mentally ill persons are more likely to be victims of violence (9). For example, a study on crime victimization demonstrated that individuals accessing community mental health services in inner city areas were more than 11 times more likely to be victims of violent crime (3). Yet public views of violence and mental illness, informed by popular media portrayals, diverge from research evidence.

Transmission of Stigma

Portrayals of mentally ill persons in popular media tend to sensationalize mental illnesses, reflect a superficial understanding of psychiatric concepts and practices, and overrepresent the propen-

sity of mentally ill persons to perpetrate unpredictable violence. This outcome is consistent with the logic of popular media, driven by intrinsic production standards and external market pressures to “sell the story.” Media producers are under pressure to select, simplify, and calibrate form and content for the accessibility and appeal of the broadcast audience. For this purpose, they gravitate toward sensational and negative representations over nuanced and positive ones (10). A content analysis of the United Press International database found that a violent crime, usually murder, was the focus of 86% of all articles about former mentally ill patients (11). A National Institute of Mental Health content analysis of entertainment media found that among primetime American television dramas, 73% of mentally ill characters were portrayed as violent compared with 40% of characters without mental illness (12). Moreover, violent offenders who are not mentally ill are at times mislabeled as mentally ill in the media, following popular beliefs that only mental illness can explain certain acts of “senseless” violence (13). However, because these distortions are shaped by familiar narrative conventions and transmitted through mainstream channels, audiences readily equate their verisimilitude with reality. Many parts of society are implicated in and affected by media recapitulation of public stigma of mental illness. Yet it is the person with mental illness struggling against self-stigmatization, facing social rejection and devaluation and discriminated against in employment and housing, who bears the most harmful consequences of this process (13).

Antistigma Efforts

Antistigma approaches addressing this media impact take one of two

perspectives: rights-based protest or normalization-medicalization (10, 13). Rights-based approaches view stigma as rationalizing the exclusion of a minority group and silencing of the group's interests. Groups such as the National Stigma Clearinghouse and MindFreedom International confront stigma by championing social justice, equality, and autonomy for those labeled with mental illnesses. Normalization approaches treat mental illnesses as a public health concern and stigma as belying the fact that these are treatable "brain diseases." Groups such as the National Alliance on Mental Illness and the Treatment Advocacy Center promote the elimination of stigma, since stigma is a barrier to seeking treatment. Once the disease is controlled, stigma against individuals will naturally give way to social acceptance and reintegration into society. Both approaches pursue education, outreach, and advocacy through traditional and social media. Yet these approaches disagree over questions of etiology and diagnosis, individual rights and coercive treatment, disparities in power, and interests between consumers and psychiatry (14). Moreover, the limitations of each perspective are increasingly clear from recent research literature.

According to Read et al. (15), advocating biogenetic explanations of mental illness as "an illness like any other" succeeds in reducing blame and increases support for services. However, they also reinforce social distancing attitudes by engendering the perception of categorical differences between "normal" and mentally ill. Divorced from a psychosocial context, normalization approaches are ineffective in ending stigmatized attitudes and discriminatory behavior. Meanwhile, pure rights-based organizations may reduce stigma by protesting against discrimination and misrepresentations of persons with mental illness. They may win support from their base for rejecting mainstream views on mental illness and its treatment in favor of protecting individual rights and freedoms. However, the proscriptive tone of such a message may cause public resistance and risk worsening stigmatizing attitudes (13).

More recent advocacy efforts involve reframing the mission around individual empowerment, broadening the definition of health and wellbeing, and celebrating mental diversity. The Mad Pride Movement, for example, follows LGBT Pride in building a global network of peer communities while increasing their social visibility by educating the public and challenging stigma through personal contact and self-disclosure (10, 13, 15). They effectively employ social marketing strategies that target antistigma messaging toward local stakeholder groups with influence over the lives of individuals with mental illness, such as landlords, employers, and legislators. This approach yields more real-world changes than costly public service announcements that have poor audience penetration and minimal impact (16).

Conclusions

Public perception of the dangers posed by the mentally ill is amplified and distorted through popular media. This perception gives rise to stigmatizing attitudes that justify discriminatory policies and practices that decrease access to care, restrict civil liberties, and perpetuate the cycle of stigma. Antistigma campaigns manage to achieve some gains but are limited by divergent, often conflicting, perspectives. Newer efforts empower consumers in cocreating a recovery focused, peer-centered mental health paradigm and in changing public attitudes through personal contact and self-disclosure. Social marketing strategies targeting key stakeholder groups on a local level can complement these efforts in achieving real positive change for individuals with mental illness.

Previously presented at the Institute on Psychiatric Services, Oct. 28, 2012, San Francisco.

Dr. Khan is a first-year child and adolescent psychiatry fellow in the Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, Calif. Dr. Ketteringham is a first-year addiction psychiatry fellow in the Department

of Psychiatry, New York University School of Medicine, New York. Dr. Yao is a first-year geriatric psychiatry fellow in the Department of Psychiatry, Oregon Health and Science University, Portland, Ore.

Supported by an APA Public Psychiatry Fellowship (C.T.K. 2010-12, M.A.K. 2010-12, M.J.Y. 2010-13).

References

1. Monahan J, Arnold J: Violence by people with mental illness: a consensus statement by advocates and researchers. *Psychiatr Rehab J* 1996; 19:67-70
2. Phelan JC, Link BG, Stueve A, Pescosolido BA: Public conceptions of mental illness in 1950 and 1996: what is mental illness and is it to be feared? *J Health Soc Behav*. 2000; 41:188-207
3. Teplin LA, McClelland GM, Abram KM, Weiner DA: Crime victimization in adults with severe mental illness: comparison with the National Crime Victimization Survey. *Arch Gen Psychiatry* 2005; 62:911-921
4. Borinstein AB: Public attitudes toward persons with mental illness. *Health Affairs* 1992; 11:186-196
5. Phelan JC, Link BG, Dovidio JF: Stigma and prejudice: one animal or two? *Soc Sci Med* 2008; 67:358-367
6. Swanson JW, Holzer CE 3rd, Ganju VK, Jono RT: Violence and psychiatric disorder in the community: evidence from the Epidemiologic Catchment Area surveys. *Hosp Community Psychiatry* 1990; 41:761-770 [Erratum in *Hosp Community Psychiatry* 1991; 42: 954-955]
7. Elbogen EB, Johnson SC: The intricate link between violence and mental disorder. *Arch Gen Psychiatry* 2009; 66:152-161
8. van Dorn R, Volavka J, Johnson N: Mental disorder and violence: is there a relationship beyond substance abuse? *Soc Psychiatry Psychiatr Epidemiol* 2012; 47:487-503
9. Stuart H: Violence and mental illness: an overview. *World Psychiatry* 2003; 2:121-124
10. Smith M: Stigma. *Advan Psychiatr Treatment* 2002; 8:317-325

11. Shain R, Phillips J: The stigma of mental illness: labeling and stereotyping in the news, in *Risky Business: Communicating Issues of Science, Risk, and Public Policy*. Edited by Wilkins L, Patterson P, Westport CN. Westport, Conn, Greenwood Press, 1991, pp 61–74
12. Gerbner G, Gross L, Morgan M, Signorilli N: Health and medicine on television. *N Engl J Med* 1981; 305:901–904
13. Corrigan PW (ed): *On the Stigma of Mental Illness: Practical Strategies for Research and Change*. Washington DC, American Psychological Association Publishing, 2005
14. McCubbin M, Cohen D: Extremely unbalanced: interest divergence and power disparities between clients and psychiatry. *Int J Law Psychiatry* 1996; 19:1–25
15. Read J, Haslam N, Sayce L, Davies E: Prejudice and schizophrenia: a review of the mental illness is an illness like any other approach. *Acta Psychiatrica Scandinavica* 2006; 114:303–318
16. Corrigan P: Where is the evidence supporting public service announcements to eliminate mental illness stigma? *Psychiatr Serv* 2012; 63:79–82

PSYCHIATRIC SERVICES

New Benefit for American Psychiatric Association Members-in-Training (MITs)

Free Online Subscription to Psychiatric Services

Beginning with the January 2012 issue, APA Members-in-Training (MITs) will receive a **free online subscription to *Psychiatric Services***.

Simply visit **ps.psychiatryonline.org** for full-text access to all of the content of APA's highly ranked, peer-reviewed monthly journal. *Psychiatric Services* focuses on service delivery in organized systems of care, evolving best practices, and federal and state policies that affect the care of people with mental illnesses.

Please visit ps.psychiatryonline.org and log in with your American Psychiatric Association username and password.

Psychiatry residents who are not currently an APA Member-in-Training should consider membership in the American Psychiatric Association. The benefits provided to residents are an example of how the APA serves the needs of its members throughout their careers. The low introductory dues APA extends to MITs are even waived for the first year. Please visit **http://www.psych.org/joinapa** for more information.



ps.psychiatryonline.org



Email: appi@psych.org
Phone: 1-800-368-5777

The First and Last Word in Psychiatry
AH1216A

Book Review

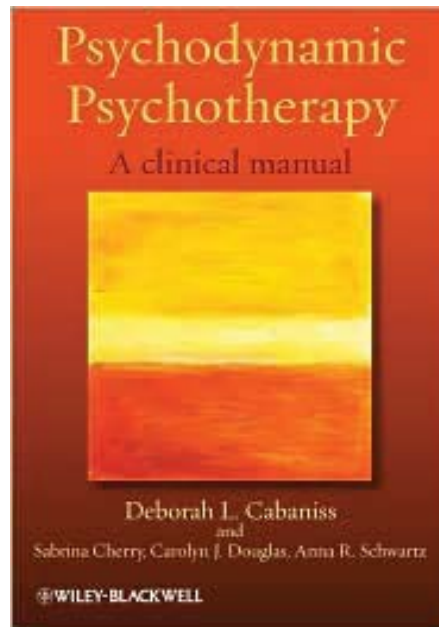
Psychodynamic Psychotherapy: A Clinical Manual

Basant Pradham, M.D.
Michael Ascher, M.D.

While working with patients within a psychodynamic framework can be fascinating and highly therapeutic, emerging residents often find the process daunting and overwhelming. Fortunately, Deborah Cabaniss (along with her coauthors) speaks to this issue and offers psychiatric residents a textbook that is based on a classroom-tested syllabus that she designed to help facilitate the learning and practice of psychodynamic psychotherapy.

In *Psychodynamic Psychotherapy: A Clinical Manual*, the authors use descriptive clinical vignettes to illustrate key concepts, techniques, and therapeutic action, making material accessible to all clinicians regardless of their level of training. Readers will learn the overarching principles of psychodynamic psychotherapy, including how to cultivate the therapeutic alliance, set the framework, and establish goals in treatment. Readers also will learn a systematic way to listen to patients, reflect on what patients say, and intervene with patients in a meaningful way. This textbook helps to illustrate difficult concepts, such as ego function analysis, in addition to aiding the reader in conceptualizing and clinically assessing patients.

The book makes the compelling case that “patients for psychodynamic psychotherapy are made, not born.” This is a profound statement, considering the general hesitations about using psychodynamic psychotherapy in the age of managed care practice. The authors encourage clinicians to empower their patients by teaching them the principles of psychodynamic psychotherapy. Through



by Deborah L. Cabaniss, Sabrina Cherry, Carolyn J. Douglas, and Anna R. Schwartz. West Sussex, United Kingdom, Wiley-Blackwell Press, 2011, 394 pp., \$82.95.

the dyadic relationship, patients can learn the importance of being more curious, insightful, and motivated to make positive changes in their lives.

Many of the chapters begin with helpful “key concepts” and end with “suggested activities,” in which readers can practice the skills and techniques they just learned. The authors provide instruction on how to take a patient from evaluation to induction to midphase to termination. Using the “problem-person-goals-resources model” formulation, the authors explain how to organize and think about clinical data in a particular way. The book also illustrates the basics of how to explore a wide range of

issues with patients, such as affect, transference, countertransference, unconscious fantasy, conflict, and dreams.

The authors do an excellent job of discussing the importance of maintaining good boundaries and setting limits with patients. They provide clear examples of when it is appropriate to avoid “technically neutral” statements and interventions. They remind the reader that an essential element in the therapeutic process is a clinician’s ability to empathically listen to patients while still being mindful of his or her own emotional responses.

Perhaps most important, the authors explain that uncovering techniques and supporting interventions do not constitute separate therapies, but rather are used in an oscillating manner in all psychodynamic psychotherapies. In particular, an important chapter is dedicated to the safe evaluation of patients, which the busy resident will likely find to be clinically useful. This helpful book should serve as a primer for all psychiatric residents, as it provides a wonderful launching point for further reading into psychodynamically oriented therapies.

At the time this book review was accepted for publication, Dr. Basant was a second-year child psychiatry fellow in the Department of Psychiatry, Jefferson Medical College, Philadelphia. Dr. Ascher is a fourth-year resident in the Department of Psychiatry and Behavioral Sciences, Beth Israel Medical Center, New York. Both authors are Ginsburg fellows in the Group for the Advancement of Psychiatry.

TEST YOUR KNOWLEDGE

In preparation for the PRITE and ABPN Board examinations, test your knowledge with the following questions.
(answers will appear in the next issue)

This month's questions are courtesy of Tua Long, B.A., a fourth-year medical student at Emory University School of Medicine, Atlanta.

Question #1

Which of the following medications typically does not increase lithium levels with concurrent usage?

- A. Hydrochlorothiazide
- B. Ethacrynic acid
- C. Ibuprofen
- D. Aspirin
- E. Triamterene

Question #2

A previously healthy 17-year-old young man was brought to the emergency room after collapsing in the road in front of oncoming traffic and being physically violent with authorities. Witnesses reported that he appeared to have "convulsions." The patient was taken to the pediatric intensive care unit. One week prior, he had complained of a flu-like syndrome. Upon arrival at the hospital, he was agitated, confused, and suspicious, with increased muscle rigidity on physical examination. Examination of his CSF revealed a lymphocytic pleocytosis with normal glucose and protein concentrations. Over the next few days, he developed orofacial dyskinesia, worsening unresponsiveness, autonomic instability, and bladder incontinence. What is the most likely diagnosis?

- A. Viral encephalitis
- B. Early-onset schizophrenia
- C. Wilson's disease
- D. Conversion disorder
- E. Autoimmune encephalitis
- F. Drug-induced psychosis

ANSWERS TO AUGUST QUESTIONS

Question #1

Answer: D

The cultural formulation provides a systematic review of the patient's cultural background, the role of the cultural context in the expression and evaluation of symptoms and dysfunction, and the effect that cultural difference may have on the relationship between the patient and clinician (1, 2).

References

- American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 4th ed, Text Revision. Washington, DC, American Psychiatric Publishing, 2000
- Lewis-Fernández R, Díaz N: The cultural formulation: a method for assessing cultural factors affecting the clinical encounter. *Psychiatric Q* 2002; 73:271–295

Question #2

Answer: E.

Berlin and Fowlkes promoted the acronym LEARN (listen, explain, acknowledge, recommend, and negotiate) as a framework for teaching cultural skills to medical students and residents (1).

Reference

- Rust G, Kondwani K, Martinez R, Dansie R, Wong W, Fry-Johnson Y, Woody Rdel M, Daniels EJ, Herbert-Carter J, Aponte L, Strothers H: A crash-course in cultural competence. *Ethn Dis* 2006; 16:29–36

We are currently seeking residents who are interested in submitting Board-style questions to appear in the Test Your Knowledge feature. Selected residents will receive acknowledgment in the issue in which their questions are featured.

Submissions should include the following:

- Two to three Board review-style questions with four to five answer choices.
 - Answers should be complete and include detailed explanations with references from pertinent peer-reviewed journals, textbooks, or reference manuals.
- *Please direct all inquiries and submissions to Dr. Vahabzadeh: arshya.vahabzadeh@emory.edu.

Author Information for *The Residents' Journal* Submissions

The Residents' Journal accepts manuscripts authored by medical students, resident physicians, and fellows; manuscripts authored by members of faculty cannot be accepted.

- 1. Commentary:** Generally includes descriptions of recent events, opinion pieces, or narratives. Limited to 500 words and five references.
- 2. Treatment in Psychiatry:** This article type begins with a brief, common clinical vignette and involves a description of the evaluation and management of a clinical scenario that house officers frequently encounter. This article type should also include 2-4 multiple choice questions based on the article's content. Limited to 1,500 words, 15 references, and one figure.
- 3. Clinical Case Conference:** A presentation and discussion of an unusual clinical event. Limited to 1,250 words, 10 references, and one figure.
- 4. Original Research:** Reports of novel observations and research. Limited to 1,250 words, 10 references, and two figures.
- 5. Review Article:** A clinically relevant review focused on educating the resident physician. Limited to 1,500 words, 20 references, and one figure.
- 6. Letters to the Editor:** Limited to 250 words (including 3 references) and three authors. Comments on articles published in *The Residents' Journal* will be considered for publication if received within 1 month of publication of the original article.
- 7. Book Review:** Limited to 500 words and 3 references.

Abstracts: Articles should not include an abstract.

Upcoming Issue Themes

Please note that we will consider articles outside of the theme.

November 2012

Section Theme: Transitions
Guest Section Editor: Nina Kraguljac, M.D.
nkraguljac@uab.edu

December 2012

Section Theme: Open
E-mail Editor: Monifa Seawell, M.D.
mseawell@med.wayne.edu

January 2013

Section Theme: Complementary and
Alternative Medicine in Psychiatry
Guest Section Editor: Nishi Bhopal, M.D.
nishi_kb@yahoo.ca