The Residents' JOURNAL

a publication of
The American Journal of Psychiatry

May 2012 Volume 7 Issue 5

Inside

In This Issue

This issue of the *Residents' Journal* features articles on the topic of sexual dysfunction. Arlenne Shapov, M.D., and Fernando Espi Forcen, M.D., discuss the sexual side effects associated with the use of selective serotonin reuptake inhibitors and serotonin norepinephrine reuptake inhibitors. Next, Kathleen Svala, M.D., provides information on the management of anxiety disorders and treatment-emergent sexual dysfunction. Last, Eugene Foris Simopoulos, M.D., presents an algorithmic approach designed for the treatment of erectile dysfunction.

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SSRI- and SNRI-Induced Sexual Side Effects in Patients With Major Depressive Disorder: Management and Treatment

Arlenne Shapov, M.D.
Fernando Espi Forcen, M.D.
Department of Psychiatry, MetroHealth Medical Center, Cleveland

Commonly used to treat depression, selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs) have efficacy and overall side-effect profiles that are comparable with earlier antidepressants, but the risk of toxicity is reduced with SSRIs and SNRIs (1). However, sexual dysfunction is a common side effect of these agents. SSRI- and SNRI-associated sexual dysfunction can lead to patient nonadherence to treatment and ultimately to relapse of depression.

Incidence of SSRI-/SNRI-Associated Sexual Dysfunction

The reported incidence of sexual dysfunction associated with serotonergic antidepressants varies between 50% and 70%. In an unblinded study of 344 patients, the reported incidence rate of antidepressant-associated sexual dysfunction was 58% (2). The frequency of sexual side effects was highest for paroxetine (65%), fluvoxamine (59%), sertraline (56%), and fluoxetine (54%).

Etiology

The normal sex cycle has four phases: desire, arousal, orgasm, and resolution (3). The incidence of sex cycle-specific sexual dysfunction varies between men and women. One study showed that men are significantly more likely than women to experience antidepressant-associated sexual dysfunction in the desire phase and in the orgasmic phase but are less likely than women to experience sexual dysfunction in the arousal phase (4). Because most of the antidepressants that have a negative effect on sexual function involve the modulation of serotonin concentration, it is generally thought that elevated serotonin levels diminish sexual function (3). It has been found that 5-HT2 antagonism reverses SSRI-associated sexual dysfunction (5–7).

Management Options for SSRI-/SNRI-Associated Sexual Dysfunction

The first step of effective management is to identify whether the patient's sexual dysfunction is caused by or associated with antidepressant therapy. This involves eliminating confounding factors, such as alcohol/substance abuse, comorbid physical problems, side effects of other medications, and residual effects of depression (8). Once these factors can be eliminated, a good indicator of antidepressant-associated sexual dysfunction is if the patient's complaints increase after the initiation of antidepressant treatment. In such cases, several options for managing symptoms can be found in the available literature.

Drug Adaptation

Once medication therapy is initiated, one modality of symptom management is the wait-and-see approach, i.e., waiting for sexual dysfunction to resolve on its own (3). However, if not properly discussed with the patient, this modality can contribute to the risk of medication nonadherence because of side effects and the loss of therapeutic alliance between patient and clinician.

Drug Holiday

Drug holiday is a treatment option in which medication is discontinued and omitted on the day of or days prior to the anticipated sexual activity. However, this may contribute to the risk of developing serotonin withdrawal symptoms depending on the half-life of the antidepressant. It also contributes to the risk of compromising the therapeutic effects of the medication. Some evidence suggests that SSRI holiday on a temporary basis can be a potential strategy. In a trial of drug holiday for SSRI-associated sexual dysfunction, Rothschild (8) instructed 30 outpatients to discontinue SSRI treatment after their Thursday morning dose and then resume treatment at their previous dose on Sunday. Patients taking sertraline and paroxetine reported an improvement in their sexual functioning, and there was no significant increase in Hamilton Depression Rating Scale (HAM-D) scores.

Lowering Antidepressant Dosage

Antidepressant-associated sexual dysfunction may be a dose-related side effect (8). Thus, reducing the dose of the medication is another management option. However, doing so involves the risk of jeopardizing adequate treatment of depressive symptoms and should be exercised with caution and constant monitoring, especially in suicidal patients. The clinician should also inform the patient that the timing or rate in which the dysfunction is expected to recede varies according to the antidepressant's half-life (3).

Switching or Augmentation With Other Antidepressants

Another strategy is to either augment with or switch to an antidepressant with a lower sexual dysfunction side-effect profile. This rationale derives from our understanding of the biochemical mechanisms proposed to underlie such side effects. It is suggested that the sexual side effects observed with SSRIs and SRNIs are a result of the activation of 5-HT2 receptors leading to the blockade of release of norepinephrine and dopamine (9). Clinical evidence

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supporting this hypothesis includes the therapeutic benefits of the 5-HT2 antagonist cyproheptadine as an adjuvant treatment for the management of SSRI-induced sexual dysfunction (9).

Nefazodone therapy has not been found to cause significant sexual dysfunction relative to treatment with SSRIs, probably because of its 5-HT2 antagonism. In a single-double blind study, patients were randomly assigned to receive treatment with either nefazodone (400 mg) or sertraline (100 mg) for 8 weeks. Seventy-six percent of sertraline-treated patients experienced re-emergence of sexual dysfunction compared with 26% of nefazodone-treated patients (5). Therefore, nefazodone may be a useful treatment option for SSRI-induced sexual dysfunction. However, the potential hepatotoxicity of this medication should be considered.

Mirtazapine, a postsynaptic 5-HT2 and 5-HT3 receptor antagonist, also appears to pose a low serotonergic side-effect profile, therefore causing low sexual dysfunction. Glenberg et al. (6) switched 19 outpatients with SSRI-induced sexual dysfunction to mirtazapine. Fifty-eight percent of these patients had a return to normal sexual functioning while maintaining their antidepressant response (6). Consequently, mirtazapine can be an option when switching or augmenting to a different agent.

Bupropion, thought to be a norepinephrine-dopamine reuptake inhibitor, has also been suggested for management of SSRI-associated sexual dysfunction. Modell et al. (10) compared the sexual dysfunction-associated effects of bupropion with those of the following SSRIs: paroxetine, fluoxetine, and sertraline. Seventy-three percent of the SSRI-treated patients reported sexual dysfunction compared with only 14% of patients treated with bupropion. Safarinejad (11) found significantly higher sexual desire, lubrication, orgasm, and satisfaction in women receiving bupropion compared with women in a placebo group. Similarly, some studies have supported the use of bupropion as a substitute for SSRI in cases of SSRI-induced sexual dysfunction. Clayton et al. (1) reported that sexual dysfunction improves following the addition of bupropion sustained-release to an SSRI treatment regimen and that symptoms continue to improve after discontinuation of the SSRI, with bupropion treatment alone (1).

Augmentation With Other Agents

Studies have been performed to assess the efficacy of nonantidepressant agents in the treatment of SSRI-induced sexual dysfunction. Cyclic guanosine monophosphate phospodiesterase inhibitors, such as sildenafil, have been discussed in the literature as an option for treatment of this condition. In a double-blinded placebo-controlled study, erectile function, arousal, ejaculation, orgasm, and satisfaction improved significantly in men taking sildenafil compared with those in a placebo group (12). The mean HAM-D scores remained consistent with remission in both groups. In a similar fashion, Nurnberg et al. (13) reported improvement in orgasm delay in women receiving sildenafil.

Although its mechanism of action is unclear, yohimbe has also been reported to be effective in treating SSRI-associated sexual dysfunction in both men and women (14). Finally, agents such as buspirone, amantadine, granisetron as well as psychostimulants such as dextroam-

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phetamine and methylphenidate have been suggested and used for treatment of SSRI-induced sexual dysfunction (14). However, there are few data or large studies of these agents pertaining to sexual dysfunction, and therefore their efficacy in the treatment of SSRI-associated sexual dysfunction remains inconsistent.

Conclusions

Several practical options to treat SSRI-/SNRI-associated sexual dysfunction exist. These include drug adaptation, drug holiday, lowering of the antidepressant dose, switching medication, and augmentation. Despite these options, managing the problem of antidepressant-induced sexual dysfunction is complex. This condition entails the partnership between the clinician and patient. Discussing treatment options with patients is imperative for successful treatment.

Dr. Shapov is a second-year resident and Dr. Espi Forcen is a third-year resident in the Department of Psychiatry, MetroHealth Medical Center, Cleveland.

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Treatment in Psychiatry

Management of Anxiety Disorders and Treatment-Emergent Sexual Dysfunction: A Closer Look at Serotonin Norepinephrine Reuptake Inhibitors

Kathleen Svala, M.D.
Department of Psychiatry, University Hospitals Case Medical Center, Cleveland

Case

"Miss A" was a 19-year-old college student with a history of generalized anxiety disorder and panic disorder. She presented to her college counseling center with concerns about her medication. One year prior, she was seen by a psychiatrist for anxiety and panic attacks and was prescribed escitalopram (10 mg daily). At a follow-up evaluation, the patient reported that she had discontinued the medication because of increased anxiety. The treating psychiatrist then recommended venlafaxine extended-release, and remission of symptoms was obtained with a daily dose of 150 mg. At her counseling center appointment, the patient reported that venlafaxine had been "extremely helpful," but she no longer wanted to take it because she had experienced sexual problems since starting the medication, specifically an inability to have an orgasm. The patient stated that her sexual life was very important to her, and thus the medication side effect was intolerable. She requested trying a different medication for her anxiety.

Discussion

With the increased use of serotonergic agents, the prevalence of treatment-emergent sexual dysfunction and the challenge of its management have become more apparent. Treatment-emergent sexual dysfunction is defined as sexual dysfunction that is not present prior to initiating treatment. According to DSM-IV, sexual dysfunction is characterized by pain associated with intercourse or by disturbance in the processes that characterize the sexual response cycle during the phases of desire, arousal, orgasm, and resolution (1).

The incidence of sexual dysfunction secondary to selective serotonin reuptake inhibitors (SSRIs) is difficult to estimate (2). Studies have provided a wide range of results, from small percentages to larger percentages of more than 80%. A realistic estimate of the incidence of SSRI-associated sexual dysfunction is probably between 30% and 50% (2, 3). The majority of studies examining treatment-emergent sexual dysfunction involve SSRIs, but research has shown that the use of venlafaxine results in rates that are equal to and at times higher than the rates seen with SSRIs (4). Anorgasmia is the most frequently reported adverse sexual effect, especially in women, but serotonergic agents can affect all phases of the sexual cycle, causing impotence, decreased libido, or impaired arousal (5, 3).

Although sexual dysfunction secondary to serotonergic agents is a common side effect, there is a lack of evidence-based recommendations for its management (3). Studies support the use of medications with lower rates of sexual side effects, such as bupropion sustained-release and nefazodone, but neither of these medications is indicated for the treatment of anxiety disorders (3, 6). Nefazodone may have some anxiolytic properties and has been shown to be beneficial for the treatment of posttraumatic stress disorder (6). However, the use of nefazodone decreased significantly when it received a black-box warning for severe liver toxicity risks (6). Further strategies to manage sexual side effects include dose reductions and drug holidays, but these strategies may compromise treatment and increase the risk of symptom relapse (5). The use of augmenting agents, including cyproheptadine, yohimbine, amantadine, buspirone, and mirtazapine, has not been supported by randomized controlled trials (5).

When treating anxiety disorders, there is no major difference in the efficacy of SSRIs and serotonin norepinephrine reuptake inhibitors (SNRIs) (7). SNRIs inhibit the reuptake of serotonin and norepinephrine at variable ratios, which creates tolerability differences within the medication class. Venlafaxine is 30 times more selective for serotonin than norepinephrine, while duloxetine is 10 times more selective for serotonin (8). The most recent SNRI, desvenlafaxine, is the major active metabolite of venlafaxine. Desvenlafaxine is a more potent reuptake inhibitor of norepinephrine than venlafaxine and a less potent inhibitor than duloxetine but is only indicated for the treatment of major depressive disorder (6).

Treatment-emergent sexual dysfunction is related to overstimulation of 5-HT2 and 5-HT3 receptors (7). Thus, it is not surprising that the rates of sexual dysfunction with venlafaxine, which is a highly serotonergic agent, are equal to those for SSRIs. Because venlafaxine has been utilized in more studies, prescribers may generalize its properties to all SNRIs, but research indicates that venlafaxine and duloxetine have differences in their side effect profiles, including in the frequency and severity of sexual dysfunction (8).

Delgado et al. (9) completed post hoc analyses of four placebo-controlled trials to measure the effects of duloxetine and paroxetine on sexual functioning in patients with major depressive disorder. They performed analyses of all duloxetine studies—available at the time of their research—that included Arizona Sexual Experience Scale scores at baseline and endpoint. After the acute treatment period of 8 weeks, the incidence rates of

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treatment-emergent sexual dysfunction with both duloxetine and paroxetine were significantly higher than those for placebo, but the incidence rate with duloxetine was significantly lower than the rate for paroxetine. In two of the four trials, patients with a greater than 30% decrease in their Hamilton Depression Rating Scale (17-item) total score after 8 weeks were allowed to continue the same treatment (duloxetine, paroxetine, or placebo) for an additional 26 weeks. After the extended treatment period, there were no significant differences in the reported incidence of treatment-emergent sexual dysfunction between the groups. The authors proposed that this effect was because of improvement in the patients' depressive symptoms (9).

A study by Clayton et al. (10) compared sexual functioning in major depressive disorder patients receiving escitalopram and duloxetine. After 4 weeks of treatment, there was no significant difference between the duloxetine and placebo groups, but there was greater incidence of treatment-emergent sexual dysfunction in the escitalopram group. In the escitalopram group, 21% of discontinuation due to adverse events was because of sexual side effects, contrasted with 6% in the duloxetine group. After 12 weeks, there were no significant differences between the duloxetine and escitalopram groups (10).

Although desvenlafaxine is not currently indicated for the treatment of any anxiety disorder, considering its close relation to venlafaxine, prescribers may be inclined to use the medication off label for the treatment of anxiety. Clayton et al. (11) reported on an integrated analysis of nine short-term placebo-controlled studies of desvenlafaxine for the treatment of major depressive disorders. The authors found that less than 5% of patients in the studies reported sexual side effects but also noted that interpretation of this result is limited because it was based on spontaneous reports from the patients (11). Underreporting of sexual side effects occurs when clinical trials rely on spontaneous reporting, and use of direct questioning or symptom questionnaires invariably elicits a much higher incidence of sexual side effects (2).

Conclusions

The management of treatment-emergent sexual dysfunction in patients with anxiety disorders is challenging because of a lack of indicated medications with lower rates of associated sexual dysfunction and a lack of research-supported management strategies. There is evidence of lower incidence of sexual dysfunction in patients treated with duloxetine versus SSRIs, but the data are limited to patients with major depressive disorder. For the patient in the present case, a trial of duloxetine is an option, but further investigation, including studies examining treatment-emergent sexual dysfunction in patients with anxiety disorders and direct comparisons of sexual dysfunction during treatment with venlafaxine, desvenlafaxine, and duloxetine, are warranted.

Dr. Svala is a fourth-year resident in the Department of Psychiatry, University Hospitals Case Medical Center, Cleveland.

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Treatment in Psychiatry

An Algorithmic Approach to the Treatment of Erectile Dysfunction for the Psychiatry Resident: Looking Beyond Viagra

Eugene Foris Simopoulos, M.D.
Department of Psychiatry and Behavioral Sciences, the George Washington University School of Medicine, Washington, DC

Erectile dysfunction, defined as the inability to achieve or maintain an erection sufficient for satisfactory sexual performance, is the most common sexual problem in men (1). Erectile dysfunction arises when there is disruption of the complex interplay between the vascular, neurologic, hormonal, and psychological factors necessary for normal erectile function. The landmark Massachusetts Male Aging Study reported that the prevalence rate of impotence in men older than 40 years is 52%, and the World Health Organization predicts that by 2025, 15% of the world's population will be over the age of 65. Since advancing age is a risk factor in the development of erectile dysfunction, it may be assumed that all physicians, including psychiatrists, can expect to see more men presenting for treatment. As psychiatrists, it is important that we continue to provide needed services in the treatment of erectile dysfunction, primarily in the form of psychotherapy, because high discontinuation rates and costs associated with sildenafil citrate and other phosphodiesterase 5-in-

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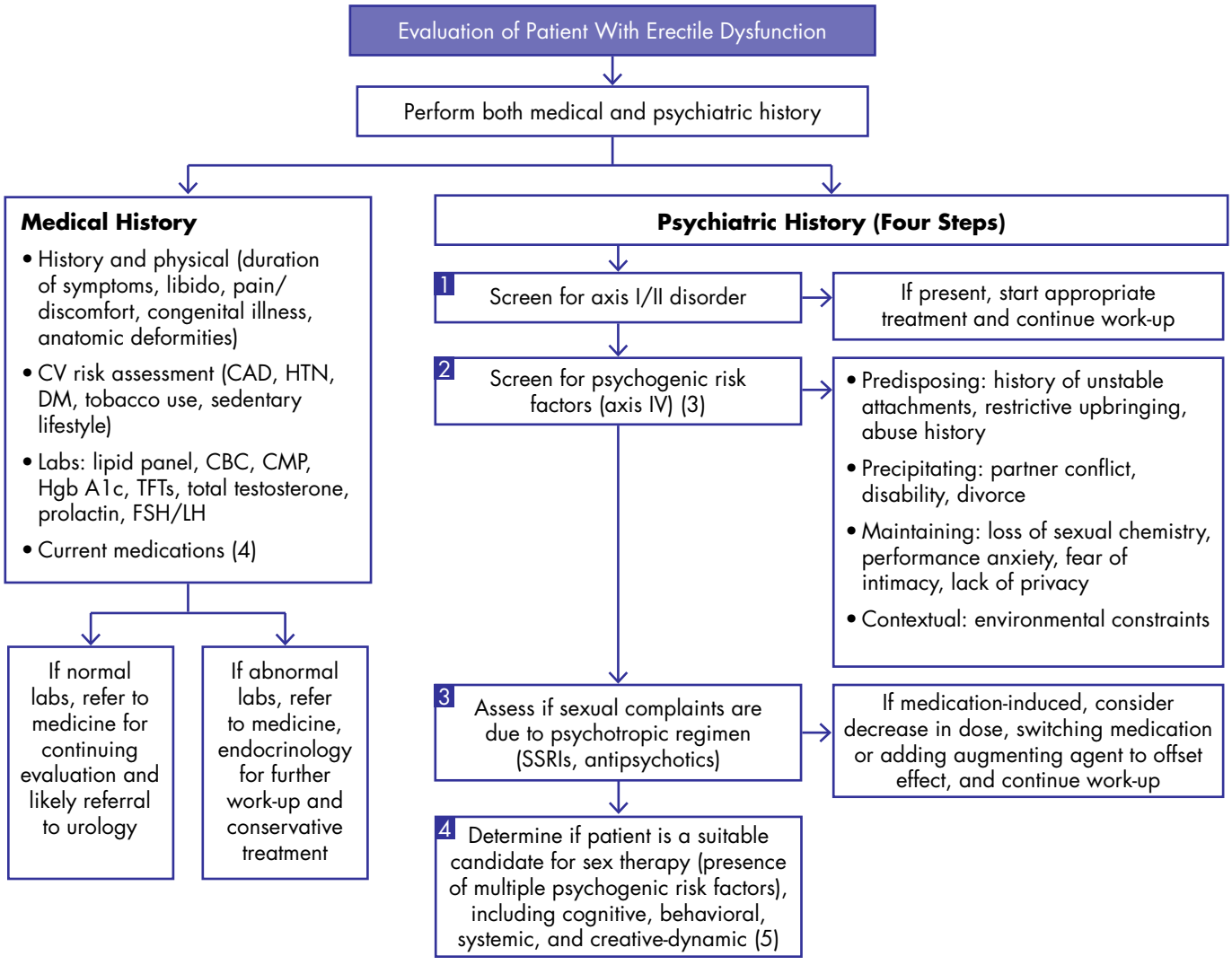
FIGURE 1. Original Algorithm for the Treatment of Erectile Dysfunction



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hibitors limit their use.

Erectile dysfunction is a clinical reality for many of our patients, affecting up to one-half of patients with depression and 30%–80% of those with schizophrenia (2). While a variety of medications are available to treat symptoms, a review of the literature demonstrates that few treatment guidelines or algorithms consistently incorporate nonmedical alternatives as first-line strategies. Althof et al. (3) emphasized the clinical utility of a biopsychosocial approach to the initial management of erectile dysfunction, a model that not only underscores the merits of medication-based treatment, but also incorporates an understanding of the predisposing, precipitating, maintaining, and contextual factors that may contribute to sexual dysfunction. Resumption of an active sexual life, it is argued, can be expected to take place only after patients are encouraged to explore the psychosocial stressors that often precede erectile dysfunction. In this setting, long-term recovery may lie in the ability of the psychiatrist to effectively integrate psychotherapy and pharmacotherapy.

Psychiatrists have a familiar role to play in a "post-Viagra" world, empowering patients to confront difficult emotions and issues. The algorithm (Figure 1) that accompanies this article summarizes diagnostic guidelines from both the psychiatric and medical/urologic literature (4, 5).

Dr. Simopoulos is a third-year resident in the Department of Psychiatry and Behavioral Sciences, the George Washington University School of Medicine, Washington, DC.

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Case Report

Healthcare-Related Transgender Bias

Brady Bradshaw, M.D.
Molly Ryan, D.O., M.P.H.
Department of Psychiatry and Behavioral Sciences, University of Miami/Jackson Memorial Medical Center, Miami

Estimates of the prevalence of transgender patients in North America are unknown, yet the number of persons in this region seeking help for gender identity disorder has recently increased (1). Awareness and ethical consideration of the needs of transgender patients lag behind as a result of the limited literature available addressing this issue. Various concerns regarding treating transgender patients include sensitive interview questions, such as inquiries about the patient's last menstrual period, last gynecological examination, last mammogram, and prostate problems. Patients may feel reluctant to disclose their medical history for fear of judgment and rejection by their health care provider or ancillary staff. This can lead to a deficiency in preventive health care measures, providers' ignorance of biological sex-specific illnesses, and an overall disparity in health care and treatment. An example of this disparity became apparent in a recent case in our outpatient clinic.

Case

"Patricia" was a 47-year-old male-to-female patient who presented to outpatient care after being diagnosed with HIV 3 weeks earlier. She reported feeling severely depressed, endorsing many of the neurovegetative signs and symptoms of depression. The patient had undergone gender reassignment surgery 25 years prior. During her initial interview, she reported a "humiliating" event that

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occurred during a recent visit to her primary care physician's office. She stated that a nurse interviewed her and asked preliminary questions, including the date of her last menstrual period. The patient initially felt embarrassed and refused to answer the question. The nurse persisted, and the patient reluctantly disclosed her transgender identity. She reported feeling that the nurse responded to this information in a negative, judgmental manner and believed that she had been placed at the end of the waiting list to be seen by the doctor.

Many similar examples are reported in the literature (2). Oftentimes, patients are referred to as "it," ridiculed for their identified gender, and even refused care. In addition to the reluctance of transgender patients to seek care, difficulties continue because health care providers frequently do not understand these patients or their needs or have personal judgments regarding transgender identity (3). The World Professional Association for Transgender Health has devised a list of standards of care guidelines specific to the transgender population (4). Additionally, suggested transgender inclusive policies and guidelines should address patient nondiscrimination, use of both "legal name" and "preferred name" on registration forms, formulation of written policy regarding room placement according to identified sex, establishment of a "zero tolerance" policy regarding discrimination, and provisions for training to all health care staff. (2). Often, issues around gender identity are politically, and for many morally, charged (5). Unfortunately, even if proper care is obtained, many insurance companies place limits on care related to transsexualism, including denying hormone replacement therapy or other claims unrelated to transition (2). Experiences such as these create stress and fear for transsexual patients and may cause individuals to distrust the health care system (2). It is the duty of the clinician to remain educated and advocate for the rights of all patients regardless of their gender or sexual identity.

Drs. Bradshaw and Ryan are both third-year residents in the Department of Psychiatry and Behavioral Sciences, University of Miami/Jackson Memorial Medical Center, Miami.

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A Direct Comparison of Lecture and E-Mail Subgroups of a National Board of Medical Examiners Psychiatry Subject Examination Review Session

Shawn Sidhu, M.D.
Department of Psychiatry and Behavioral Sciences, , UCLA Semela Neuropsychiatric Institute, Los Angeles

Rohit M. Chandra, M.D.
Department of Child and Adolescent Psychiatry, Massachusetts General Hospital, Boston

Over the past two decades, medical education has been in a state of rapid evolution. Problem-based learning has demonstrated efficacy in many individual trials (1, 2) as well as in a meta-analysis (3). More recently, web-based approaches have been tested, although with mixed results (4, 5). Self-directed learning among health care professionals has been associated with improvement in knowledge when compared with traditional teaching methods (6). Yet despite the variety of educational models currently being used in academic teaching, there remains a paucity of comparative data.

In an attempt to increase National Board of Medical Examiners Psychiatry Subject Examination scores among medical students in an MS-III clerkship, an optional 2-hour review session with an accompanying handout was offered. The purpose of the study was to compare the extent to which this intervention improved group performance on the Psychiatry Subject Examination.

Method

The study was approved by the e-institutional review board of Northwestern University Feinberg School of Medicine under the educational exempt category. It was led by a resident, and attendance was optional. The study was allocated 1.5 hours and took place an average of 7 days prior to the Psychiatry Subject Examination.

Creation of Review

A four-page fill-in-the-blank document was prepared in accordance with the National Board of Medical Examiners Psychiatry Subject Examination Content Guidelines (7). Answers to the review questions were taken from the students' assigned text (8). The students actively participated by answering the questions and were encouraged to discuss relevant cases.

Study Flow

Although the review session was offered to a total of 122 students, only 81 students attended. The remaining 41 students received the blank handout with the accompanying answers via e-mail. The comparison group consisted of 107 students who took the Psychiatry Subject Examination 1 year prior to this experiment.

Data Collection and Intervention Implementation

The students who attended the review signed a consent form and were assigned a subject identification number. The institutional review board did not require individuals who did not attend to sign a consent form given that they were not assigned a subject identification number, did not fill out a survey, and their individual scores were not tracked. The study coordinator was blind to participant responses.

Data Analysis

The mean raw scores and percentiles on the examination were calculated for each group. High scores, low scores, score range, and standard deviation/error were also calculated.

Analysis of variance was performed for the intervention, with and without covariate analysis. Group means were compared for statistical significance and effect size. Given that the intervention was implemented between the months of May and December, two academic classes participated in both the experimental and comparison groups, which necessitated covariate analysis for academic class. Covariate analysis was also performed for time-of-year effect in the lecture versus e-mail subgroups given that the sample included students in both the beginning and end of their third-year clerkship. Time of year was defined as July through September (early), October through December (mid-year), and May and June (late). Time-of-year effect could not be performed for each subgroup versus the comparison group because time of year was synonymous with academic class.

Results

Presence of Intervention Effect on the Lecture and E-Mail Subgroups Relative to the Comparison Group

The mean raw score for the 81 students who attended the lecture was 85.47, compared with 78.35 for the 107 comparison subjects who were not offered the review intervention earlier. This finding was statistically significant ($p<0.0001$). The mean raw score for the 41 students who were e-mailed the review materials was 82.20, and this group also performed significantly better than comparison subjects ($p=0.01$). These comparisons remained significant after covarying for academic class.

Direct Comparison of the Lecture and E-Mail Subgroups

The lecture subgroup exceeded the e-mail subgroup by a raw score difference of 85.47 to 82.20, resulting in a statistically significant difference ($p=0.04$). These results remained significant after covarying for academic class and time of year.

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Of note, no differences in high scores, low scores, or score range were observed in any of the analyses.

Conclusions

This study compared the extent to which two forms of a comprehensive review session, offered to third-year medical students an average of 7 days prior to taking the Psychiatry Subject Examination, significantly improved test scores. Both the lecture and e-mail components were effective forms of intervention, with students who completed the intervention in either form scoring higher than comparison subjects, and this was not attributable to differences between academic classes or the time of year in which the intervention was administered.

Strengths of the study include covariate analysis, even distribution of scores, and the ease with which the intervention could be adapted at other institutions.

However, there are potential limitations, with the most glaring being that the e-mail subgroup was not surveyed following the intervention to assess whether or not the review materials were used. That the e-mail subgroup exceeded the comparison group suggests that the review document was used, but this cannot be confirmed. Additionally, because of the institutional review board exempt category restrictions, participants were not screened for past performance on national examinations. Therefore, we do not know whether a selection bias toward higher or lower performing students was present in either the lecture or e-mail subgroup. While an even distribution of scores suggests that this is not the case, we have no way of knowing definitively. Other weaknesses are that the study had limited power given the number of participants, and it was performed in one setting and not carried out throughout an entire academic year.

In conclusion, despite its limitations, this study supports the utilization of both interactive lectures and e-mailing of review materials as forms of curriculum intervention which can improve examination performance.

Dr. Sidhu is a first-year fellow in the Department of Psychiatry and Behavioral Sciences, Division of Child and Adolescent Psychiatry, UCLA Semela Neuropsychiatric Institute, Los Angeles; Dr. Chandra is a second-year fellow in the Department of Child and Adolescent Psychiatry, Massachusetts General Hospital, Boston.

The authors thank Drs. Jacqueline Gollan, Sonya Rasminsky, and Joan Meyer Anzia, from Northwestern University Feinberg School of Medicine, Chicago, for their assistance. The authors also thank Simerjeet K. Brar, a fourth-year medical student at Ross University School of Medicine, North Brunswick, N.J.

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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)

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 Kathleen Svala, M.D. Dr. Svala is a fourth-year resident in the Department of Psychiatry, University Hospitals Case Medical Center, Cleveland. Please see the accompanying treatment in psychiatry article in this issue.

Question #1
A patient reports anorgasmia after starting citalopram. This problem is most likely related to which of the following?

A. Stimulation of 5-HT_1 receptors
B. Stimulation of 5-HT_2 receptors
C. Stimulation of 5-HT_1 and 5-HT_2 receptors
D. Stimulation of 5-HT_2 and 5-HT_3 receptors

Question #2
A 27-year-old man develops impotence shortly after starting venlafaxine for the treatment of major depressive disorder. Which of the following options is the best choice for evidence-based management of this medication side effect?

A. Augment with yohimbine
B. Augment with mirtazapine
C. Discontinue venlafaxine and start bupropion
D. Discontinue venlafaxine and start duloxetine

ANSWERS TO APRIL QUESTIONS

Question #1

Answer: C
The example is of the authoritarian parenting style.

Question #2

Answer: E
The best initial intervention for authoritarian style parenting is psychoeducation.

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:
1. Two to three Board review-style questions with four to five answer choices.
2. 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. Seawell; mseawell@med.wayne.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.

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Guest Section Editor: Justine Wittenauer, M.D.
jwittenauer@emory.edu

August 2012
Section Theme: International Health
Guest Section Editor: Nicole Zuber, M.D.
nicajean@gmail.com

September 2012
Section Theme: Psychosomatics
Guest Section Editor: David Hsu, M.D.
david.hsu@ucdmc.ucdavis.edu