Residents' Journal

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Editors' Column

Participating in the peer review process is a great way to gain experience in evaluating research articles and to learn how scientific publications make their way from the clinical setting to the printed page. Providing reviewer feedback is an extremely valuable service to the research community that you can feel good about doing, and the process permits participation among colleagues at all levels, from those most junior in their careers to the most senior of investigators.

It may seem overwhelming to review a paper from an established research group, particularly if the paper involves a complex technique or specialized analysis (e.g., neuroimaging or genetic studies). However, by following a structured approach, it is possible to compose a constructive and thoughtful review for most manuscripts. To help you accomplish this, we will walk you through an example review based on the hypothetical paper in the following scenario:

You are asked to review a manuscript that reports on an 8 week medication trial for generalized anxiety disorder (GAD). The study involves using a novel pharmacologic agent for the treatment of anxiety in 40 subjects receiving active treatment versus 40 comparison subjects receiving placebo. During the study, all participants undergo neuroimaging procedures before and after treatment that measure functional brain activity during an anxiety-provoking cognitive task. Changes in brain measures as well as symptom ratings are used to assess the effects of the medication.

As a potential reviewer for this manuscript, you may consider reviewing even if you are not an expert in both GAD and neuroimaging techniques. When you agree to do the review, it is appropriate to let the editor know that you are able to adequately assess the clinical aspects of the study, but other reviewers may need to supplement additional expertise in imaging, statistics, or other methodological aspects of the study.

The American Journal of Psychiatry, like most journals, offers a format to guide you in preparing your review. The format consists of the following six categories: 1) Summary, 2) Strengths of paper, 3) General conceptual or design problems, 4) Specific problems, 5) Areas needing more or less detailed coverage, and 6) Aspects requiring more qualification or more emphasis. We will examine each of these individual categories and discuss strategies for writing a critique based on the hypothetical manuscript described above.

Summary

At the start of each review it is helpful to reiterate in one or two sentences the main point of the study and the findings of the authors. While this may seem mundane, it can actually be fairly revealing. For example, if you are having trouble identifying the main point of a manuscript, then there may be problems with the focus of the paper as a whole, and you may be able to provide suggestions on presenting the work in a more concise manner. For our hypothetical manuscript, you could summarize the study in the following way: "This is a treatment trial for GAD using a novel medication that is assessed via neuroimaging techniques as well as clinical outcome." At this point you might also state what the authors hypothesized they would find during the course of their study, such as a change in functional activity in a specific brain region and/or a change in scores on a specific clinical rating scale.

Strengths of Paper

The particular strengths of each manuscript will vary, but often here is where comments are made about the significance or scientific impact of the paper on the field. A journal is really a "diary" of the scientific progress of the field, so papers should offer some new meaning or finding that represents a step forward. You may also wish to comment whether the findings in the study could lead to a new insight or perspective on existing treatment. For example, in the case of the GAD manuscript, it may be helpful to note that there are relatively few studies that examine treatments for GAD, and therefore the study is clinically significant. Furthermore, the neuroimaging techniques employed in this study may identify a new way to conceptualize the neurobiology of GAD, which would be a definite strength of the manuscript. If you do not have great expertise in GAD treatment or neurobiology, it is often helpful to conduct a search on PubMed or some other similar search engine to get a better sense of the topic and how this particular analysis fits in.

General Conceptual or Design Problems

In this section you may want to focus on the specific hypotheses being tested in the study. In our GAD example, the authors essentially are testing three questions: "Does experimental Drug X show a greater effect in GAD patients than placebo?"; "Is treatment with Drug X associated with changes in functional neuroimaging that are distinct from treatment with placebo?"; and finally, "Do any of the changes that occur in brain imaging correlate with clinical outcome?" A possible conceptual problem could be the inability to support why the pharmacologic profile of Drug X is relevant to GAD. If no such support is addressed, this would be a problem in the general concept of the study that would need to be explained. Similarly, as a reviewer you may want to ask if there are regions of interest specified in the neuroimaging findings that have some basis in the literature to support a role in GAD. These are general issues to think about as you consider each manuscript. Often new technologies such as neuroimaging are applied to understudied disorders simply because it has not been previously done, but there should always be a scientific rationale explaining what the authors expect to find and why.

Specific Problems

To detect more specific problems in a study, the reviewer should consult the Methods section of the manuscript in particular. In the Methods you should find a thorough description of where and how the sample was recruited, what scales were used to assess clinical status, and how the test results of the intervention effects were calculated. As a reviewer, you may wish to consider whether the study adequately describes the nature of the clinical sample and whether it is an adequate representation of the population at risk; specifically whether the age, gender, and socioeconomic status of the subjects are appropriate for inclusion in the study sample. In the case of GAD, in which other comorbid disorders may be present, you may wish to check whether an assessment or rating scale was included to detect comorbid conditions such as depression or substance abuse that may significantly interfere with treatment outcomes and neuroimaging measures. Other specific problems in a treatment study may include whether the drug dosages appear

reasonable, whether concomitant medications were excluded, and whether the duration of the trial was appropriate for detecting a response to treatment. If imaging of some type is used, there should be a description of the imaging methods that is explained in such a way that most readers can understand the basics of the procedure and whether any stimuli or tasks were presented during the imaging process. In the case of our GAD study, you may wish to evaluate whether the use of anxiety-provoking stimuli appears reasonable and whether the stimuli had been previously validated to reliably provoke anxiety.

Areas Needing More or Less Detailed Coverage

In this section of the review, a reviewer with less experience may be particularly helpful in finding areas where the authors may have glossed over key background information or other explanations that are essential to interpreting the paper. Often experts in research laboratories may assume that their word choices are readily understood by a broad readership, when in fact they are not. Authors may not realize that the significance of their findings should be explained more clearly so as to be more accessible to the readership. For example, in the GAD manuscript, the authors may report that a particular area of the brain, such as the anterior cingulate cortex, appears to be affected by active treatment with Drug X. At this juncture they may need to be reminded to explain how the anterior cingulate is involved in many other disorders, such as major depression, and how their findings tie into the bigger picture of treating GAD.

Aspects Requiring More Qualification or More Emphasis

A common issue that reviewers often identify when critiquing manuscripts is the need for a section discussing the limitations of the study. This permits the authors to qualify their findings, since no single study can offer the final word on any research question. Common limitations to studies may include high drop-out rates, so that the sample size

completing treatment may be smaller than originally intended, problems in matching comparison groups, challenges in blinding treatment conditions, or methodological limitations for any of the procedures. Occasionally authors use samples of convenience in particular clinics or regions that are not representative of the broader population. In this case the authors need to be reminded that while their findings may be extremely important, they may not necessarily be appropriate for generalization to the population at large, or definitively answer the question at hand. Alternatively, some papers may appear to undervalue findings that may actually merit more emphasis.

Of course, the above six areas of consideration are meant to represent a guideline. Most reviewers do not necessarily address all six, since every manuscript is different. Regardless of whether you follow this format or not, the most important thing is to keep practicing. If you read a manuscript carefully and provide comments that are designed for improvement, then you have started the process of becoming a contributing member of the science community. The more reviews that you do, the more adept you will become at reading a paper with a critical eye. Most journals will usually share with you any other reviews that were submitted for the manuscript after all decisions have been completed. This helps accelerate the learning process, as you discover what issues other reviewers identified and how different viewpoints can overlap or diverge completely. Finally, and perhaps the most important suggestion of all, is to always frame reviews in the positive light of how to make the manuscript better. It may be that a manuscript needs a lot of improvement and may never be of sufficient quality for publication, but it is always important to recognize the hard work and perseverance that goes into submitting a manuscript. Therefore, keeping the tone courteous and respectful at all times is very important.

Susan Schultz, M.D. Robert Freedman, M.D.

Promoting Healthier Relations With the Pharmaceutical Industry: A Resident-Driven Educational Model

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In the spring of 2006, the psychiatry residents at the University at Buffalo felt that the existing format of pharmaceutical presentations needed restructuring. On a monthly basis, pharmaceutical representatives were given 10 minutes at the end of the lecture day to present their products to the residents. This presentation was moderated by the attendance of a faculty member. There were a multitude of factors that contributed to the pitfalls of this format. The

timing (end of the day) and the lack of uniformity in terms of faculty supervision were among the factors cited by the residents.

In response to the residents' feedback, the program director created a committee to review the existing format. The committee, under the leadership of a junior resident, agreed that the activity should not be held at the end of the day and should be instead incorporated as a monthly session in the

weekly resident rounds. To make it interesting, four different formats were to be followed on a rotating basis: case presentations, APA Treatment Guidelines, role playing, and the discussion of miscellaneous topics, such as sample distribution. The themes for the monthly sessions were carefully chosen to ensure that the different classes of medications were covered, as well as the different aspects of the physician-pharmaceutical industry

relationship. An emphasis on evidence-based practices in all the different presentations was encouraged.

Topics that were chosen include treatment resistant depression, hyperprolactinemia associated with risperidone, pharmacologic management of alcohol dependence, metabolic syndrome, implications of the CATIE trial, and pharmacologic options for bipolar disorder. These topics were presented either as case presentations or APA Treatment Guidelines. The pharmaceutical representatives were chosen to present based on the drugs that were prescribed in the case or by the drugs that were suitable for the specific condition that was being addressed. Two to three pharmaceutical representatives from different companies were invited per session. They were specifically told that they were not allowed to bring any promotional materials or food.

The one hour session was structured in the following manner: 15 minutes for the resident's case presentation/summary of APA Treatment Guidelines, 10 minutes for each pharmaceutical representative to present their product, 5 minutes for the representative to answer questions, and 15 minutes for the attending to supplement the resident's case presentation and critique the interaction of the pharmaceutical representative with the residents.

The initial sessions were met with an overwhelmingly positive feedback from the residents. They generally felt that this was a more integrated and

cohesive way of including the discussion of medications from pharmaceutical representatives into the curriculum. They felt that there was an educational value to the sessions, as the drugs that were being discussed were correlated with a clinical case or an APA Treatment Guideline. The faculty feedback at the end of the sessions was also considered to be more practical and candid.

The inclusion of topics that address specific aspects of industry relations makes this educational program unique. The role play session was a big hit among the residents. Two attending physicians, who were former chief residents of the program, created a skit that illustrated the different types of interactions among physicians and pharmaceutical representatives. This was very well received by the residents, as the attendings had skillfully and artistically portrayed the characters in a very realistic manner. The model of what is appropriate and what is inappropriate in a resident's interaction with a pharmaceutical representative was thoroughly discussed after the skit. The session also included a discussion of an evidence-based study on industry relations. The most recent session in May involved a roundtable discussion on the ethics and practicalities of sample distribution in the outpatient setting. The variety of the formats and the inclusion of relevant and timely topics add to the strengths of the pro-

The format does have some limitations. The fact

that the session is only one hour presents a challenge to keep within time constraints. With some portions of the session being interactive, the vigilance to keep focused on the educational goals of the exercise is heightened. Also, ensuring that there is a fair and equitable distribution of time to the pharmaceutical representatives for each of the different companies is essential.

The pharmaceutical representatives have also given positive feedback about the sessions. Initially, there was some hesitation on the representatives' part with the idea of presenting in the same room as representatives from other companies, but they have since grown accustomed to the format and have found it educational for them as well.

The fact that this program is organized by the residents empowers them to create an educational environment that meets their needs in an optimal way. The goal of creating a professional relationship between residents and the pharmaceutical industry that is healthy, balanced, and clearly demarcated in its boundaries is still a work in progress, but it is certainly moving in the right direction.

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Second Annual Meeting of the Residents' Journal Focus Group

May 2007 marked the second annual meeting of the Residents' Journal Focus Group, which was held at the APA Annual Meeting in San Diego, California and cosponsored by the Committee of Residents and Fellows. There, the residents in attendance decided to introduce Resident Editors to guide the Residents' Journal. Each volunteer resident will serve as editor for one issue, beginning with the month of September. The first five Resident Editors are as follows:

Dr. Sarah Guzofski, University of Massachusetts (September), Dr. Vishal Madaan, Creighton University (October), Dr. Anna Gross, Columbia University (November), Dr. Mireya Nidal, Massachusetts General Hospital (December), and Dr. Todd Young, University of New Mexico, (April 2008).

Residents are welcome to request to serve as a

Resident Editor for the months that are not yet filled. Each Resident Editor is responsible for providing two original articles for each issue, with one written by him or herself and the other written by an invited colleague. The Resident Editor also selects the topic of discussion for the column that is written by Drs. Susan Schultz and Robert Freedman, Editors for *The American Journal of Psychiatry*. For example, Dr. Schultz's column in this month's issue on how to write a peer review was the result of a resident's request. Residents can also request columns from other people in our field. For September, Resident Editor Sarah Guzofski has requested a column on advocacy by APA President Carolyn Robinowitz.

All residents are encouraged to continue to submit editorials or other articles, such as research and case reports, to the *Journal* online at http://mc.manuscriptcentral.com/appi-aip.

These submissions will be published in addition to the articles from the Resident Editors. Articles will be reviewed by the Resident Editors and other peer reviewers as time allows. We also can provide books of interest to residents, such as clinical manuals, training texts, and board review texts, that can be reviewed for publication. Please direct all inquiries about submitting articles, subscribing to the Residents' Journal (which is free), or serving as a Resident Editor, book reviewer, or peer reviewer, to the staff editor Lisa Devine at ldevine@psych.org. The Residents' Journal is also archived free of charge on The American Journal of Psychiatry home page at http://ajp.psychiatryonline.org. Simply click on "Residents' Journal" in the column on the lefthand side of the page for a list of past issues.

* Did you know that APA Members-in-Training (Residents who are APA members) are eligible for a 25% discount on items published by American Psychiatric Publishing, Inc. (APPI)? For more information, please visit http://www.appi.org/discounts.cfx.