
Practice Guidelines Regarding Psychologists' Involvement in Pharmacological Issues

American Psychological Association

Several factors have converged that will inevitably increase psychologists' involvement in the medication management of the individuals they serve. One is the increasing use of psychotropic medications for the treatment of psychological disorders, a clinical practice which is referred to as *pharmacotherapy* in this document. A national survey of physician records suggested that the proportion of the population using antidepressants increased from 6.7% in 1990 to 15.1% in 1998, an increase of 125.4% even after adjusting for population growth (Skaer, Sclar, Robison, & Galin, 2000). According to VandenBos and Williams (2000), practicing psychologists, on average, estimated that 43% of their current patients were using psychotropic medications. Another factor is the movement for prescriptive authority within psychology. Appropriately trained psychologists are now eligible for prescriptive authority in two states (Louisiana and New Mexico) as well as in the military. With similar legislative agendas emerging in a number of other states, the number of states offering prescriptive authority to psychologists will inevitably increase further.

In response to a series of articles describing the professional challenges faced by psychologists as they become prescribers (e.g., Antonuccio, Danton, & McClanahan, 2003; Buelow & Chafetz, 1996; DeLeon, Robinson Kurpius, & Sexton, 2001; McGrath et al., 2004), it was recognized in discussions among members of American Psychological Association (APA) Division 55, the American Society for the Advancement of Pharmacotherapy, that the implications of the APA (2002b) "Ethical Principles of Psychologists and Code of Conduct" (the Ethics Code) specifically concerning psychologists' involvement in pharmacotherapy merited clarification. Beth Rom-Rymer, president of the division in 2004, convened the Division 55 Task Force on Practice Guidelines to explore the issue. Four of seven task force members were psychologists with prescriptive authority in the civilian or military sector, while three supervised postdoctoral programs in clinical psychopharmacology for psychologists. The task force also included representation from Division 18 (Psychologists in Public Service).

Members of the task force reviewed relevant literature and participated in formulating the content of the guidelines. The literature review began with a document titled *Policies of Other Organizations and Background Materials: Pharmaceutical Marketing, Gifts, and Financial Support* (APA, 2002c), which provided primary sources addressing the relationship between prescribing professionals and the pharmaceutical industry. This document was up-

dated with more recent publications on the topic. Medicine, nursing, pharmacy, and the pharmaceutical industry have all generated guidelines relevant to the practice of pharmacology, and these were reviewed as well. Finally, the task force considered specific implications of APA's (2002b) Ethics Code for psychologists' involvement in the practice of pharmacotherapy.

The guidelines presented in this document are intended to provide a resource to psychologists interested in the issue of what represents optimal practice in relation to pharmacotherapy. They are not intended to apply to those psychologists who choose not to become directly or indirectly involved in medication management regardless of their level of competency. As background to these guidelines, it may be noted that psychologists' involvement in pharmacotherapy can be conceptualized as a continuum, though prior APA documents (e.g., Smyer et al., 1993) have identified three particularly salient steps along that continuum. The first occurs when the psychologist serves as the prescriber. As indicated above, psychologists currently can only prescribe in the U.S. military and in two states, though the latter authority also allows psychologists to prescribe in the Public or Indian Health Services. The population of psychologists with prescriptive authority is therefore small but is one

This article was published Online First October 17, 2011.

These guidelines were developed by the American Psychological Association (APA) Division 55 (American Society for the Advancement of Pharmacotherapy) Task Force on Practice Guidelines. The task force was chaired by Robert E. McGrath. Task force members included Stanley Berman, Elaine LeVine, Elaine Mantell, Beth Rom-Rymer, Morgan Sammons, and James Quillin. Additional input on the guidelines was provided by Robert Ax, representing Division 18 (Psychologists in Public Service). None of the individuals involved in the development of this document has any personal investment in pharmaceutical products of any kind, nor did the developers receive any financial support for its creation.

The task force anticipates that these guidelines may deserve reconsideration in a relatively brief time frame, given anticipated changes in psychologists' role in pharmacotherapy as well as changes in the perceptions and use of psychotropic medications. In particular, it is the belief of the members of the task force that future efforts should include consideration of whether some elements of the enclosed guidelines merit elevation to the level of practice standards. Accordingly, this document is scheduled to expire as APA policy in August 2014, five years after the date of its approval and adoption by the APA Council of Representatives. After this date, users are encouraged to contact the APA Practice Directorate to confirm whether this document remains in effect.

Correspondence concerning this article should be addressed to the Practice Directorate, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242.

that is sure to increase in size in the coming years. It should be noted that some psychologists prescribe only through a second license, for example, as a nurse practitioner or physician. Such individuals determine for themselves the degree to which the guidelines presented here for prescribing are relevant to their activities.

The second level occurs when psychologists actively collaborate in medication decision making. The psychologist is not ultimately responsible for the decision that is made in these circumstances but does play a substantive role in the decision-making process. VandenBos and Williams (2000) found that 87% of their sample of practicing psychologists reported they had been involved in the decision to prescribe medication for at least one of the patients on their caseloads. However, it is unclear what role they played in the decision, especially since over 80% also indicated this was not a frequent occurrence. On the other hand, 7% of respondents indicated they participated in the decision to prescribe for more than half their patients, suggesting that they were consistently and perhaps formally involved in decisions about the appropriateness of medications for their patients. This might, for example, include making recommendations concerning specific classes of medications to be used or even specific medications, dosing, or other aspects of the treatment regimen, though the prescribing professional maintains ultimate responsibility for the decision.

The third, and probably most common, level describes psychologists who provide information that may be relevant to pharmacotherapy decision makers. The information-providing psychologist may offer opinions relevant to the pharmacotherapy but does not play a formal role in the decision-making process. Examples of providing information include reporting concerns about the treatment to the prescribing professional, referring patients for a medication consult, pointing patients to vetted referral or information sources, or discussing with patients how to address their concerns about the medication with the prescriber. It is likely that many of those psychologists who indicated to VandenBos and Williams (2000) that they were infrequently involved in the decision to prescribe did so in an information-providing role. Table 1 summarizes the characteristics of the three roles.

Some of the guidelines presented in this document are targeted specifically to the population of psychologists with prescriptive authority. Others are considered

relevant in any case where the psychologist is actively involved in decision making, whether as a prescriber or collaborator. Still others are considered applicable any time a psychologist is involved in the practice of pharmacotherapy, whether as a prescriber, collaborator, or information provider. Given the unique elements of the population of psychologists who can prescribe on the one hand, and the frequency with which psychologists participate in collaborative and information-providing activities on the other, it was considered important to provide guidelines appropriate to each set of activities. However, it is also important to recognize that a principle of optimal practice may have different implications in the context of active participation versus providing information. In particular, the distinction between active participation and providing information can often be blurred in the practice setting, with a psychologist often playing different roles at different points in the treatment. Given the ambiguity that surrounds these activities, it is urged that these guidelines be read with the understanding that the clearest practice delineation occurs between those psychologists who possess prescriptive authority and those who do not, and that psychologists who do not possess prescriptive authority use critical judgment in determining which guidelines best inform their practice.

Technology-based alternatives to face-to-face contact with patients are proving particularly useful in the conduct of pharmacotherapy (Hyler, Gangure, & Batchelder, 2005). The telephone has dramatically affected the nature of interactions with patients; videoconferencing can expand these options even further, particularly in rural areas. E-prescribing and e-mail correspondence between patients and providers regarding medication will be used more and more as a mechanism for service delivery. For example, prescription renewal can often be safely and efficiently accomplished without face-to-face contact between the prescribing professional and the patient. These guidelines can be considered relevant regardless of the modality of contact.

Standards Versus Guidelines

To clarify the goals of the present document, it is worth summarizing the differences among *treatment guidelines* (or *clinical guidelines*), *standards*, and *practice guidelines*. Treatment guidelines provide recommendations for clinical

Table 1
Characterizing Psychologists' Activities Related to Pharmacotherapy

Extent of decision making	Relevant activities		
	Prescribing	Collaborating	Providing information
Legal responsibility for decision making	Yes	No	No
Involvement in decision making	Yes	Yes	No

interventions that are usually specific to a certain disorder and/or method of treatment (APA, 2002a). Practice guidelines and standards differ from treatment guidelines in that they have to do with general professional conduct in a particular domain of psychological practice. Practice guidelines refer to statements that suggest or recommend general principles of optimal behavior or conduct for psychologists. Guidelines differ from standards in that standards are mandatory and may be accompanied by an enforcement mechanism. Guidelines are instead aspirational in intent. They are intended to facilitate the continued systematic development of the profession and to help encourage a high level of professional practice by psychologists. Practice guidelines are not intended to be mandatory or exhaustive and may not be applicable to every professional or in every clinical situation. They are not definitive and they are not intended to take precedence over the judgment of psychologists.

Given the degree to which involvement in pharmacotherapy represents a new activity for psychologists, and the level of controversy that has surrounded the use of psychotropic medications in general and the prescriptive authority movement for psychologists in particular, it is tempting to proscribe or mandate certain behaviors or professional practices associated with pharmacotherapy. This is not the intention of the present document. The Division 55 Task Force on Practice Guidelines speculated that at some point psychologists may decide it would be judicious to establish standards specific to the domain. However, such a decision at this time would be premature given the nascent state of involvement in pharmacotherapy in psychology.

Finally, nothing in these guidelines is intended to contravene any limitations set on psychologists' activities based on ethical standards, federal or local statutes or regulations, or—for those psychologists who work in agency and public settings—the policies of those agencies in which they provide services. As in all other circumstances, psychologists must be aware of the standards of practice for the jurisdiction or setting in which they function and are expected to comply with those standards.

In particular, psychologists who participate in collaboration and providing information should be aware of local statutory and regulatory language or opinions by the state board of psychology concerning their involvement in pharmacotherapy and the use and interpretation of laboratory tests. Fourteen jurisdictions have explicitly identified certain activities related to medication management as within the scope of practice of psychology—California, the District of Columbia, Florida, Louisiana (for psychologists without prescriptive authority), Maine, Massachusetts, Missouri, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Tennessee, and Texas—though the description of permitted activities and circumstances under which they are permitted varies. In contrast, several states have passed legislation prohibiting discussion of medication by school personnel (including psychologists employed by schools). The legal status of involvement in

pharmacotherapy for psychologists who cannot prescribe remains an open question in other jurisdictions.

The Guidelines

The list of practice guidelines, with the types of activities for which each is relevant, may be found in Table 2.

General

Guideline 1. Psychologists are encouraged to consider objectively the scope of their competence in pharmacotherapy and to seek consultation as appropriate before offering recommendations about psychotropic medications.

Rationale. Ethical Standard 2.01 of the APA (2002b) Ethics Code indicates psychologists provide services within the boundaries of their competence. Two factors complicate psychologists' efforts to comply with this standard in the context of pharmacotherapy. The first factor is pressure exerted on psychologists to serve in a collaborative or information-providing role. Patients or family members who find it difficult or uncomfortable to request information from the prescriber may look to the psychologist with whom they have established a therapeutic relationship for specific advice. Primary care physicians and other prescribers with limited specialized training in psychological disorders and their treatment, or who do not know the patient as well as the psychologist does, sometimes look to the psychologist for input on the choice of medication.

The second factor affects psychologists in all three levels of involvement, that being the rapidly evolving nature of treatment guidelines in pharmacotherapy. While the psychologist with prescriptive authority faces a statutory obligation to remain current, his or her level of expertise can vary across treatment populations and classes of medications. The psychologist asked to serve in a collaborative or information-providing role has no similar statutory obligation, though APA has established educational expectations for the psychologist who serves in a collaborative role (*Recommended Postdoctoral Education and Training Program in Psychopharmacology for Prescriptive Authority*; APA, 2009). These factors can combine to create a situation in which psychologists feel pressured to discuss their patients' treatment with medication at a level beyond their expertise.

Implications. Psychologists are encouraged to evaluate objectively their level of competence for addressing questions raised by other professionals, patients, or significant others. At any level of involvement in pharmacotherapy, psychologists clarify their role in the process and admit the limits of their own competence when appropriate, up to and including refusing to offer an opinion if the psychologist objectively considers doing so to be inappropriate. Particularly when asked to serve as prescribers or collaborators, psychologists are encouraged to consider the extent to which their beliefs about the appropriate course of action come from reliable sources (such as peer-reviewed

Table 2*List of Practice Guidelines Regarding Psychologists' Involvement in Pharmacological Issues*

Guideline	Relevant activities		
	Prescribing	Collaborating	Providing information
General			
Guideline 1. Psychologists are encouraged to consider objectively the scope of their competence in pharmacotherapy and to seek consultation as appropriate before offering recommendations about psychotropic medications.	X	X	X
Guideline 2. Psychologists are urged to evaluate their own feelings and attitudes about the role of medication in the treatment of psychological disorders, as these feelings and attitudes can potentially affect communications with patients.	X	X	X
Guideline 3. Psychologists involved in prescribing or collaborating are sensitive to the developmental, age and aging, educational, sex and gender, language, health status, and cultural/ethnicity factors that can moderate the interpersonal and biological aspects of pharmacotherapy relevant to the populations they serve.	X	X	
Education			
Guideline 4. Psychologists are urged to identify a level of knowledge concerning pharmacotherapy for the treatment of psychological disorders that is appropriate to the populations they serve and the type of practice they wish to establish and to engage in educational experiences as appropriate to achieve and maintain that level of knowledge.	X	X	X
Guideline 5. Psychologists strive to be sensitive to the potential for adverse effects associated with the psychotropic medications used by their patients.	X	X	X
Guideline 6. Psychologists involved in prescribing or collaborating are encouraged to familiarize themselves with the technological resources that can enhance decision making during the course of treatment.	X	X	
Assessment			
Guideline 7. Psychologists with prescriptive authority strive to familiarize themselves with key procedures for monitoring the physical and psychological sequelae of the medications used to treat psychological disorders, including laboratory examinations and overt signs of adverse or unintended effects.	X		
Guideline 8. Psychologists with prescriptive authority regularly strive to monitor the physiological status of the patients they treat with medication, particularly when there is a physical condition that might complicate the response to psychotropic medication or predispose a patient to experience an adverse reaction.	X		
Guideline 9. Psychologists are encouraged to explore issues surrounding patient adherence and feelings about medication.	X	X	X
Intervention and consultation			
Guideline 10. Psychologists are urged to develop a relationship that will allow the populations they serve to feel comfortable exploring issues surrounding medication use.	X	X	X
Guideline 11. To the extent deemed appropriate, psychologists involved in prescribing or collaboration adopt a biopsychosocial approach to case formulation that considers both psychosocial and biological factors.	X	X	
Guideline 12. The psychologist with prescriptive authority is encouraged to use an expanded informed consent process to incorporate additional issues specific to prescribing.	X		
Guideline 13. When making decisions about the use of psychological treatments, pharmacotherapy, or their combination, the psychologist with prescriptive authority considers the best interests of the patient, current research, and when appropriate, the needs of the community.	X		

Table 2 (continued)

Guideline	Relevant activities		
	Prescribing	Collaborating	Providing information
Guideline 14. Psychologists involved in prescribing or collaborating strive to be sensitive to the subtle influences of effective marketing on professional behavior and the potential for bias in information in their clinical decisions about the use of medications.	X	X	
Guideline 15. Psychologists with prescriptive authority are encouraged to use interactions with the patient surrounding the act of prescribing to learn more about the patient's characteristic patterns of interpersonal behavior.	X		
Relationships			
Guideline 16. Psychologists with prescriptive authority are sensitive to maintaining appropriate relationships with other providers of psychological services.	X		
Guideline 17. Psychologists are urged to maintain appropriate relationships with providers of biological interventions.	X	X	X

journals or reputable summaries of that literature) or from potentially biased or unreliable sources (such as unfamiliar websites, sales representatives, advertisements, or casual conversations with colleagues who may be relying on the same unreliable sources of information). It is important to remember that research suggests health care providers can be susceptible to relying on easily accessible sources of information even when the source of that information is potentially unreliable (Haug, 1997).

Guideline 2. Psychologists are urged to evaluate their own feelings and attitudes about the role of medication in the treatment of psychological disorders, as these feelings and attitudes can potentially affect communications with patients.

Rationale. There is some evidence to suggest the clinician's faith in the treatment can be an important predictor of treatment response (Jacobson & Hollon, 1996). Unfortunately, treatment with medication has at times been associated with both excessive optimism and skepticism (e.g., Kramer, 1993; Valenstein, 1998), and both positions have been exaggerated by media attention. Psychologists will inevitably form their own opinions about medications. These opinions can in turn affect patients' decisions about taking a prescribed medication, and even medication effectiveness, if they are not addressed openly in the process of discussing psychopharmacological interventions.

Implications. Psychologists who are aware of their attitudes and feelings towards medications, and who openly accept the possible validity of alternative viewpoints, are in the best position to discuss the potential risks and benefits of using medication in a balanced manner. Psychologists are encouraged to explore their own feelings

about medication and to consider the possible role of those feelings in discussions about pharmacotherapy with the individuals they serve.

Guideline 3. Psychologists involved in prescribing or collaborating are sensitive to the developmental, age and aging, educational, sex and gender, language, health status, and cultural/ethnicity factors that can moderate the interpersonal and biological aspects of pharmacotherapy relevant to the populations they serve.

Rationale. Principle E of the Ethics Code (APA, 2002b) focuses on the importance of considering cultural and personal variables in the populations served. This standard takes on additional implications in the context of pharmacotherapy, because individual differences can affect the interpersonal aspects of medication management, the effectiveness of the treatment, and its side-effect profile. Issues that can be important include the following (Lin, Smith, & Ortiz, 2001; M. H. Smith, Mendoza, & Lin, 1999; U.S. Department of Health and Human Services, 2001):

1. *Differences in presentation*

a. Both the physical and psychological presentation of emotional distress can vary across cultures (e.g., Carr, 1978; Chowdhury, 1996). This finding has led to controversy over whether any specific presentation is truly culture-bound or simply more prevalent in some cultural settings than others (Sakamoto, Martin, Kumano, Kuboki, & al-Adawi, 2005) and whether such syndromes can be fully understood in terms of standard psychiatric diagnoses (e.g., Guarnaccia & Rogler, 1999). Such issues aside, it is important that clinicians be aware of the existence of cultural variants in presentation.

2. Differences in participation in treatment

a. Psychosocial factors such as differences in help-seeking behaviors and symptom expression, beliefs about the doctor-patient relationship, and beliefs about healing can influence the interpersonal context of pharmacotherapy (Rey, 2006).

b. Certain cultures encourage the use of alternative healing practices including herbal and other folk and traditional remedies that can moderate the effectiveness and safety of psychotropic medications (Lin & Cheung, 1999; Lin et al., 2001).

c. Age, intellectual development, language barriers, level of formal education, problems with numeracy, and disability can affect communications about and the ability to participate effectively in pharmacotherapy (Bayard-Burfield, Sundequist, & Johanssen, 2001; Flaskerud, 1986).

d. The patient's level of health literacy, which has been defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (U.S. Department of Health and Human Services, 2000, pp. 11–20), can influence all aspects of treatment planning.

e. There is an interaction of age and gender, so that treatment with psychotropics is more common in male children and in female adults (Simoni-Wastila, 1998; Zito et al., 1998).

3. Differences in response to treatment

a. Biological correlates of cultural/ethnic status, age, and gender, such as genetic polymorphisms, dietary factors, and other lifestyle habits, may affect drug protein binding, metabolism, and clearance. These can in turn affect bioavailability and subsequent therapeutic and adverse effects (Dawkins & Potter, 1991; Johnson, 1997).

b. Limited diversity in treatment trial samples can raise concerns about the generalizability of results across populations.

4. Differences in access to appropriate treatment

a. Socioeconomic factors can affect treatment availability and adherence. These can include both the cost of medication and the ability to participate in treatment effectively. Since women and ethnic/cultural minorities are overrepresented among the impoverished, these groups may be particularly affected by lack of access to treatment.

Implications. As the preceding list illustrates, the number and variety of person variables that can potentially moderate the process or outcome of pharmacotherapy is daunting, and no one person can be expected to be familiar with all the potential moderators. Psychologists who prescribe or collaborate strive to educate themselves on those factors that are particularly relevant for the populations of individuals they serve on a regular basis and are sensitive to the possible role of such factors in the psychopharmacological treatment of other groups as well.

When clinicians work with patients or clients from different linguistic, ethnic, or cultural groups, clinicians recognize that the presentation or description of the clinical syndrome may reflect culturally specific referents and may not conform to those of the dominant group. Clinicians are

also sensitive to person factors that can affect the presentation of symptomatology and the interpretation of symptoms. In such instances, clinicians attempt to obtain information about presenting complaints in behavioral terms rather than in terms that could be misinterpreted. Clinicians avoid the use of unfamiliar or ambiguous terminology with clients. Whenever unfamiliar terminology or cultural referents are used in presenting complaints, further explanation or as-needed consultation is sought to avoid misunderstanding.

Education

Guideline 4. Psychologists are urged to identify a level of knowledge concerning pharmacotherapy for the treatment of psychological disorders that is appropriate to the populations they serve and the type of practice they wish to establish, and to engage in educational experiences as appropriate to achieve and maintain that level of knowledge.

Rationale. Where Guideline 1 focused on practicing within one's scope of competence, this practice guideline focuses on involvement in continuing education activities that are appropriate for providing optimal care to one's patients. Various studies suggest most doctoral programs in professional psychology offer training in psychopharmacological interventions, but the educational requirements are fairly limited in scope (Collins, 2000; Monti, Wallander, & Delancey, 1983; Smyer et al., 1993). For the psychologist with prescriptive authority, state legislation will ultimately establish the minimum criteria for basic and continuing education and the boundaries of acceptable practice. The psychologist who at times plays a collaborative or information-providing role operates under more ambiguous expectations about the appropriate degree of continuing education. At this time only one state (Georgia) mandates continuing education in psychopharmacology as a condition for maintaining licensure.

Implications. Psychologists are encouraged to consider what level and type of formal education and training about psychotropic medications would be appropriate to the populations they serve, recognizing that scientific and clinical information about pharmacotherapy is rapidly evolving. The range of options is greater for the psychologist without prescriptive authority, since there is often no mandated minimum training. In making judgments about how much training is important, psychologists who find themselves involved in collaborating or providing information may consider various factors, including:

1. The proportion of their patients receiving psychotropic medication.
2. The severity of side effects associated with those medications.
3. The ages of the individuals they serve.
4. The degree to which specialized psychiatric care is

available to their patients. For example, in communities where psychiatric services are unavailable, the psychologist may experience a stronger motivation to seek a level of education that will allow him or her to collaborate effectively with primary care providers.

The three levels of participation in pharmacotherapy—providing information, collaborating, and prescribing—parallel the three levels of education and training that have been suggested for training in pharmacotherapy for psychologists (Smyer et al., 1993). Level 1 represents basic education in pharmacotherapy, with the expectation that this level of education can be obtained through a single graduate-level course. The APA Board of Educational Affairs provides a model curriculum for such a course (Kilbey et al., 1995). Level 2 is specifically intended to represent the level of education and training appropriate for active collaboration with prescribers in decision making about medication. A similar didactic curriculum has been generated to identify the additional didactic training beyond Level 1 considered appropriate for this role (Kilbey et al., 1997). Since programs have not developed specifically for purposes of Level 2 training, in practice many psychologists interested in collaborating with prescribers pursue the didactic training associated with Level 3 without completing the experiential component. A revised description of the didactic and experiential training for Level 3 was approved as APA policy at the August 2009 Council of Representatives meeting. These documents provide guidance to psychologists seeking to identify the appropriate level of training for their intended or anticipated involvement in pharmacotherapy.

Psychologists with prescriptive authority are encouraged to evaluate their need for initial and continuing education beyond the minimum defined in statute or regulations. Such an evaluation might involve consideration of patient populations, classes of medications, treatment of side effects, the evaluation of contraindications, and other factors. Psychologists with prescriptive authority are encouraged to update their knowledge of current evidence-based treatment guidelines, including the relative value of pharmacological, psychosocial, and combined intervention, on a regular basis.

Guideline 5. Psychologists strive to be sensitive to the potential for adverse effects associated with the psychotropic medications used by their patients.

Rationale. Adverse effects of medication are widespread and in some studies represent the most common reason cited for premature termination of pharmacotherapy (e.g., Ashton, Jamerson, Weinstein, & Wagoner, 2005; Brambilla, Cipriani, Hotopf, & Barbui, 2005; Kampman & Lehtinen, 1999). Iatrogenic medication effects can arise from a number of sources, including the patient's reaction to a medication protocol, the ill-advised use of polypharmacy, use of excessive dosages (Antonuccio, Burns, & Danton, 2002), a drug–drug interaction, a drug–diet interaction, a known or undiagnosed medical condition, or poor patient adherence with the medication schedule or dosing (Brown, Frost, Ko, & Woosley, 2006). Often,

low-probability adverse effects do not become evident until well after the medication has been approved by the Food and Drug Administration (Lasser et al., 2002). The possibility even exists that effects may not emerge until many years later, particularly in developmentally immature patients.

Implications. The prescribing psychologist strives to maintain access to current information about the side-effect profiles of the medications or combinations of medications he or she prescribes and uses this information in treatment planning and monitoring. This expectation does not apply to the psychologist providing psychotherapy to an individual receiving medication from another prescribing professional. However, it is important to keep in mind that this psychologist typically sees the patient more frequently than the professional who is responsible for medication management and can therefore play a useful role in the early detection of possible side effects. All psychologists are sensitive to the possibility that physical events subsequent to the initiation of medication can represent adverse events and either intervene or refer the patient for intervention as appropriate within their scope of practice. The prescribing psychologist is aware of the importance of evaluating adverse events and of reporting such events when they occur, while other psychologists are aware of the importance of referring the individual to the prescribing professional when concerned about the possibility of an adverse event.

Guideline 6. Psychologists involved in prescribing or collaborating are encouraged to familiarize themselves with the technological resources that can enhance decision making during the course of treatment.

Rationale. The practice of pharmacotherapy is undergoing rapid change as information is gathered about the positive and negative effects of various medications. Mastery of the relevant literature is difficult to achieve and maintain, especially when one considers such issues as drug–drug and drug–diet interactions. A range of electronic resources has emerged in recent years that many prescribing professionals find indispensable in their daily practice.

Implications. Psychologists with prescriptive authority and direct collaborators are urged to familiarize themselves with available technological and expert resources (e.g., www.guidelines.gov, www.cochrane.org) that offer critically evaluated, evidence-based, synthesized information about the effective practice of pharmacotherapy. In terms of daily practice, psychologists with prescriptive authority and psychologists who directly collaborate in medication decision making are well served by products now available for computers and/or personal digital assistants that offer extensive and frequently updated information about pharmaceutical agents. This software offers a supplement to personal

knowledge of the pharmacotherapy literature, however, not an alternative.

Assessment

Guideline 7. Psychologists with prescriptive authority strive to familiarize themselves with key procedures for monitoring the physical and psychological sequelae of the medications used to treat psychological disorders, including laboratory examinations and overt signs of adverse or unintended effects.

Rationale. Methods of assessing medication effects and indications, both positive and negative, represent a body of knowledge that is distinct from the literature devoted to the medications themselves. The psychologist with prescriptive authority strives to remain current in both bodies of literature as a means of ensuring optimal patient care.

Implications. Among the topics relevant to this guideline are knowledge of laboratory tests, normative ranges, test interpretation, variation in results across ethnicity and genders, and how often such tests are warranted, particularly in populations commonly served by the psychologist. When the psychologist with prescriptive authority encounters anomalies that indicate a medical health issue, he or she endeavors to ensure rapid and appropriate consultation with the patient's primary medical caregiver or another appropriate resource.

Though existing guidelines for training and education in psychopharmacology for psychologists (APA, 2009) highlight the importance of training in physical examination, and such training is considered valuable when the psychologist interprets the results of a physical examination, no position is offered here concerning the appropriate level of involvement for the psychologist with prescriptive authority in the practice of physical assessment. This is a matter for the psychologist with prescriptive authority to consider in light of the nature of his or her practice, the population served, the potential impact of the psychologist's conducting a physical examination on therapeutic interactions, and local statutory and regulatory limitations. Psychologists are also sensitive and responsive to concerns expressed about physical examinations, particularly in the case of pediatric patients or members of certain cultural groups.

The extent to which it will be appropriate for psychologists to integrate psychological tests into prescriptive practice is unclear at this time. An extensive literature exists supporting the use of psychological tests for diagnosis and psychotherapeutic treatment planning (e.g., Beutler, Malik, Talebi, Fleming, & Moleiro, 2004). In contrast, comparatively few studies have specifically evaluated the use of such tests to enhance the quality of decision making in pharmacotherapy, but it is a potentially fruitful avenue for future efforts.

Guideline 8. Psychologists with prescriptive authority regularly strive to monitor the physiological status of the patients they treat with medication, particularly when there is a physical condition that might complicate the response to psychotropic medication or predispose a patient to experience an adverse reaction.

Rationale. When serving as a prescriber, a psychologist is participating in the medical treatment of the patient at a level previously unparalleled in the history of psychology. A thorough medical history, including prior adverse responses to a medication or a combination of medications, represents an important starting point for optimal medical care and for avoiding adverse reactions.

Implications. Psychologists with prescriptive authority are encouraged to consider co-morbid medical conditions that can complicate the course of treatment with pharmaceutical agents, as well as possible drug-drug and drug-diet interactions. These relationships at times can be quite complicated. A thorough medical history that includes all other medications (over the counter, herbal, and dietary agents) that the patient is taking can contribute a great deal to understanding the patient's current physiological status (Beitman & Klerman, 1991; Sammons & Schmidt, 2001; Sperry, 1995).

Guideline 9. Psychologists are encouraged to explore issues surrounding patient adherence and feelings about medication.

Rationale. Adherence rates in pharmacotherapy are quite poor. Olfson, Marcus, Tedeschi, and Wan (2006) found 42% of patients discontinued use of antidepressants within 30 days; 72% stopped within three months. Patients do not or cannot adhere with treatment for many reasons including lack of access to a prescribing provider; the financial and organizational challenges involved in seeing multiple health providers, only one of whom would be the prescriber; ambivalence or fears about the medication; distressing side effects; misinformation about the latency of the therapeutic effect; shame or self-consciousness about taking psychoactive medications; the perception (which can be valid but is sometimes mistaken) that the treatment is ineffective or insufficiently effective; and concerns about medication changing their behavior, their ways of thinking, or, more profoundly, their fundamental personality style. As a result, many patients receive less than optimal benefit from their medication (Mitchell, 2006). The frequent contact between psychologist and patient that characterizes traditional psychological treatment provides a setting for monitoring patient feelings about the medication and willingness to continue.

Implications. This guideline is not intended to imply any recommendation concerning the frequency of inquiry into patients' reactions to or use of their medications, particularly in the case of psychologists who serve only in an information-providing role. At the least, it does suggest that when the psychologist perceives ambivalence

or negative feelings about the medication, the psychologist can play an important role in monitoring this aspect of the patient's treatment more closely and deciding on an appropriate course of action. This monitoring can be particularly important when working with families, if parents/caregivers demonstrate conflicting views about the medication among themselves, or if a pediatric patient disagrees with the views of the parents/caregivers. Finally, psychologists are sensitive to the potential for diversion of medication and misrepresentation of its use in the case of stimulants and other drugs with resale value.

Intervention and Consultation

Guideline 10. Psychologists are urged to develop a relationship that will allow the populations they serve to feel comfortable exploring issues surrounding medication use.

Rationale. This guideline is intended to complement the previous one. A sizeable proportion of patients who terminate medication treatment prematurely do so without informing the prescribing professional of this decision and may even report continued use of the medication to the prescriber (e.g., Maddox, Levi, & Thompson, 1994). Research consistently demonstrates the communication style of the provider is a significant predictor of adherence to medication (Bultman & Svarstad, 2000; Di Matteo, 2003). Whether the psychologist serves as a prescriber, collaborator, or information provider, the effectiveness of monitoring attitudes concerning and adherence to prescribed medications depends on the degree to which the patient perceives the relationship with the psychologist as one that allows for such discussion.

Implications. In any exchange concerning medication, the psychologist may want to consider the potential impact of moderating factors that can interfere with the free flow of information, such as intellectual, developmental, emotional, interpersonal, gender, or cultural factors. When a psychologist serves in the role of prescriber, this can include reticence on the part of the patient to express uncertainties about adherence to the medication regimen. Assessment and intervention using the stages-of-change model and motivational interviewing may be useful approaches to evaluating and addressing motivation for treatment (Beitman et al., 1994; Miller & Rollnick, 2002).

Psychologists in general can help create such an environment by simply monitoring the patient's use of and concerns about his or her medications. This may involve posing specific questions to evaluate the level of adherence in as nonstressful a manner as possible, promoting adherence when it is suboptimal, and normalizing the patient's concerns about medication. It is left to the psychologist to evaluate what is the appropriate level of inquiry for each patient. Supervisors of clinical trainees (practicum students, interns, etc.) are urged to consider supervisees as one of the populations for which this guideline is relevant, to create an environment in which trainees can raise concerns about their patients' medications, and to encourage trainees

to address questions to their patients about their medications at appropriate points.

Guideline 11. To the extent deemed appropriate, psychologists involved in prescribing or collaboration adopt a biopsychosocial approach to case formulation that considers both psychosocial and biological factors.

Rationale. The biopsychosocial model for the understanding of human health (Engel, 1977) represents the dominant model in the health care disciplines. At a minimum, this model suggests that psychosocial factors (including interpersonal, intrapersonal, gender, cultural, spiritual, and socioeconomic variables) play an important role in the etiology of and response to medical conditions as well as the recognition that psychoeducational and psychological services can be essential in coping with and recovering from illness. Within this broad perspective, there is much room for variation in the degree to which these different perspectives are considered important for understanding the nature of psychological disorders.

The prescribing or collaborating psychologist conducts a full evaluation of the patient's current condition in light of the psychological and social issues relevant to treatment. It would seem that a biopsychosocial approach to prescribing or collaborating in medication decision making that is appropriate for psychologists would be based on the assumption that behavioral, social, psychological, and educational interventions are treated as equal to, and perhaps superior to, biological interventions in importance in certain circumstances. Indeed, evidence is beginning to emerge that substantiates this assumption. For example, behavioral parent training and classroom behavior management, when implemented with integrity, yield effect sizes comparable to stimulants for the treatment of the core symptoms of attention-deficit/hyperactivity disorder and are superior to medication for functional outcomes in family, school, and peer settings (see Brown et al., 2008). Fabiano et al. (2007) demonstrated that the amount of stimulant medication needed to maintain improvements in symptoms and classroom functioning among children with attention deficit disorder can be reduced when concurrent behavioral classroom management is provided. A recent large multisite study found effect sizes were comparable for cognitive-behavioral and drug therapy when treating pediatric anxiety (Walkup et al., 2008). Similar conclusions have been drawn concerning the relative efficacy of medication and psychotherapy for depression (Antonuccio, Danton, DeNelsky, Greenberg, & Gordon, 1999). Encouraging findings about the superiority of combined drug and psychosocial treatment over either drug or psychosocial treatment alone have now been reported for childhood anxiety (Walkup et al., 2008), adolescent major depression (Treatment for Adolescents With Depression Study Team, 2004), major depressive disorder (Friedman et al., 2004; Thase, 2003), and pediatric obsessive-compulsive disorder (Pediatric OCD Treatment Team, 2004). As encouraging as these findings are, much additional research is needed to

identify other conditions and populations for which psychosocial and drug interventions may be comparably effective or where psychosocial treatments can enable reductions in drug dosages.

Mantell, Ortiz, and Planthara (2004) noted the lack of information on the best means for integrating traditional psychological and biological treatments and outlined some of the challenges and issues involved in creating an integrated model of treatment. One of the important tasks for the first generation of psychologists with prescriptive authority will be the development of formal recommendations, perhaps even treatment guidelines, concerning the best integration of biological interventions into a broader psychological and social context of treatment.

Implications. Psychologists actively involved in decision making about medication are encouraged to consider both the interpersonal/psychosocial and the biological aspects of treatment. Increasing hopefulness, reducing demoralization, and providing support represent elements of good patient care and maximize the potential for effective intervention (Stewart et al., 1995). The psychologist will likely conclude that a sufficient biopsychosocial evaluation requires more time than is currently typical for medication management (Olson, Marcus, & Pincus, 1999).

Psychologists with prescriptive authority will sometimes find themselves called upon to provide consultations to other health care providers solely for purposes of evaluating the patient for medication, for example, when on call or when asked to serve as a consultant to another professional who is providing psychosocial services. The psychologist with prescriptive authority is still encouraged to evaluate the clinical presentation from a biopsychosocial perspective to the extent possible. Even in emergency circumstances, or when the patient has an ongoing relationship with another mental health provider, the opportunity exists to consider psychosocial and interpersonal as well as biological issues and interventions. This can be an important tool for avoiding overreliance on medications even when psychologists are involved specifically because of their prescriptive authority.

Guideline 12. The psychologist with prescriptive authority is encouraged to use an expanded informed consent process to incorporate additional issues specific to prescribing.

Rationale. The APA (2002b) Ethics Code requires psychologists to obtain informed consent before any professional interaction whenever possible. The decision to prescribe medication for a patient optimally results from collaboration between that patient and the psychologist, rather than from a unilateral decision by the prescriber. A collaborative decision depends upon appropriate education of the patient about alternative treatments and full informed consent.

Implications. When medication is given voluntarily, full informed consent is the norm. Optimally, the elements of informed consent are discussed verbally, pre-

sented in writing, signed by both the patient and the psychologist, and placed in the medical record.

Even when the recipient of the intervention is not capable of giving informed consent, the psychologist with prescriptive authority considers what sorts of information may be useful or anxiety reducing for the individual. Psychologists in forensic settings may work with individuals who are unable or unwilling to provide informed consent. In these circumstances, it is incumbent upon the psychologist to be aware of both institutional rules and regulations and APA ethical expectations for how to handle the administration of medications in the absence of consent. Despite differences in the context of the treatment, the psychologist endeavors to provide the same level of education and disclosure about medication and its efficacy, iatrogenic effects, and medication procedures as he or she would for any other patient.

The use of medication increases the universe of topics to be addressed as part of the informed consent process. The following is a sample of the sorts of topics a psychologist with prescriptive authority may choose to discuss with a patient or with a patient's guardian ad litem in cases of involuntary treatment when pharmacotherapy is being considered as a treatment option (Grisso & Appelbaum, 1998):

1. Describing the agent to be used.
2. Indicating the symptoms it is intended to address.
3. Providing the rationale for the treatment relative to other treatment options. This may involve outlining alternatives to the recommended treatment, including a review of other medications that can be considered as well as nonpharmacological treatment options.
4. When discontinuing or reducing levels of medication use, explaining the reason for this course of action and addressing any concerns about the change in regimen.
5. Describing the benefits and potential risks of the protocol, including both therapeutic and potential adverse effects of the medication.
6. Estimating the duration and cost of treatment and the time to therapeutic effect. Simply indicating how long to remain on the medication has been found to reduce the rate of premature termination (Bull et al., 2002).
7. Providing information about relative or absolute contraindications for the treatment and possible drug interactions.
8. Reviewing the risks associated with sudden, unilateral discontinuation of the medication.
9. Providing an explanation of any indicated physical examination, laboratory examination, or requirements for ongoing therapeutic monitoring of drug levels.
10. Offering appropriate references for further patient education, in formats that are accessible to and understandable by the patient.
11. Describing the ongoing psychologist-patient partnership in deciding on medication changes (including titration) or criteria for termination of medication. This can involve orienting patients to the psychologist's new combined role of prescriber and psychotherapist.

12. Remaining open and responsive to the patient's questions and concerns including, at the patient's request and with appropriate consent, providing information and education to family members or significant others.

13. Underscoring how psychopharmacology can be a key component, but often not the exclusive component, of a successful treatment plan.

14. When psychotherapy and psychopharmacology are used together, explaining why the combination is recommended over either intervention alone, describing how sessions will be structured to combine the two, and estimating the expected time course for treatment as a whole.

15. Inviting questions and the expression of concerns. It is important to remember that concerns can be about practical and financial as well as physical or psychological issues, so explicitly encouraging questions about the range of obstacles can be helpful.

16. Evaluating the patient's likelihood of adherence to the treatment selected.

In regard to the last component, it is important to remember that acceptance does not imply agreement. Patients may accept the prescription with little or no intention of complying, with mixed feelings about the treatment, or with the full intention of complying. The psychologist with prescriptive authority is encouraged to look beyond patients' acceptance of the prescription to evaluate their likelihood of compliance with the treatment.

As with any good informed consent process, the psychologist with prescriptive authority seeks to address patients in terms that are congruent with their level of education and their ability to understand the language. This may require considering the patient's developmental status, health literacy, willingness to question an authority figure, and other factors. The collaborative agreement that emerges from the informed consent process can benefit from individual tailoring with regard to any disability that might impair the patient's ability to give full informed consent.

Informed consent is a dynamic process to be revisited repeatedly throughout the treatment, to refresh the patient's understanding of relevant issues and when substantive changes to the treatment agreement or process are being considered. The process is best completed in an environment in which the patient feels safe to disagree with the psychologist, to pose questions, and to report difficulties complying with the protocol.

Guideline 13. When making decisions about the use of psychological treatments, pharmacotherapy, or their combination, the psychologist with prescriptive authority considers the best interests of the patient, current research, and when appropriate, the needs of the community.

Rationale. As noted previously, combined psychotherapy and pharmacotherapy can be superior to either treatment alone, at least in some circumstances. The therapeutic relationship, characterized by empathic interaction with the patient and the enhancement of awareness, often

provides the optimal framework for focal interventions including medication. However, the situational factors that predict which treatment option to select remain largely unknown. In the absence of clear guidelines, personal preferences for one approach or the other can become predominant in a practitioner's decision making rather than an individualized analysis of the best course of action. For example, given psychologists' traditional reliance on psychotherapy as a primary treatment, it would not be surprising to find some psychologists with prescriptive authority elect never to prescribe except in the context of a psychotherapeutic relationship.

Implications. The psychologist with prescriptive authority is encouraged to remain current in terms of the literature on additive and multiplicative effects associated with the effectiveness of pharmacotherapy and psychosocial interventions. Until these processes are better understood, the psychologist with prescriptive authority is encouraged to consider what might be reasonable predictors of the relative efficacy of alternative interventions. Not all patients who are interested in pharmacological treatment desire or are appropriate for psychological interventions. In rural areas, in economically distressed areas, or in agencies with insufficient resources for the catchment population, psychologists may also decide that serving solely as a prescriber in some cases represents the best response to the community's public mental health needs.

On the other hand, there is evidence that patients and guardians often report more positive feelings about psychosocial than pharmacological intervention (MTA Cooperative Group, 1999; Pyne et al., 2005). Except in the case of mandated treatment, the patient is the ultimate decision maker regarding the choice of therapy. Even in cases of patients in forensic and other settings where the individual is not able or required to provide informed consent, the psychologist must provide education and information so that the individual feels as informed as possible. The psychologist strives to assess the patient's preferences, expectations, and decisions regularly throughout the course of treatment. It is also important to note that *a referral from another professional for pharmaceutical treatment does not create an obligation to prescribe* or to restrict one's focus to the physical aspects of the disorder. The psychologist with prescriptive authority is encouraged to consider combined treatment, or a shift from one treatment modality to the other, as part of decision making either as the primary clinician or as a consultant.

Guideline 14. Psychologists involved in prescribing or collaborating strive to be sensitive to the subtle influences of effective marketing on professional behavior and the potential for bias in information in their clinical decisions about the use of medications.

Rationale. A substantial literature indicates the pharmaceutical industry potentially influences decision making about medications in at least four ways. First is through its role in research and journal publications. A

recent comparison of seven meta-analyses published with pharmaceutical industry support versus parallel meta-analyses published under the auspices of the independent Cochrane Collaboration found every one of the former recommended the medication without reservations while none of the latter did, even though mean effect sizes reported were similar (Jørgensen, Hilden, & Gøtzsche, 2006). Panels created for the development of treatment guidelines often consist largely or exclusively of researchers receiving funding from the pharmaceutical industry (Choudhry, Stelfox, & Detsky, 2002). However, even relatively independent analyses of the literature must rely on primary research that is heavily funded by pharmaceutical companies, and such studies tend to support the superiority of the funder's products (e.g., Heres et al., 2006; Lexchin, Bero, Djulbegovic, & Clark, 2003; Rising, Bacchetti, & Bero, 2008; Turner, Matthews, Linardatos, Tell, & Rosenthal, 2008). This effect presumably reflects the funder's role in both the design of the research and the decision whether or not to publish the results (Davidoff et al., 2001).

Second, the pharmaceutical industry remains the primary source of support for continuing education in medication (Holmer, 2001; Society for Academic Continuing Medical Education, 2004). Third, direct-to-consumer advertising has a demonstrated tendency to increase the volume of prescriptions, even when the prescribing professional is ambivalent about the medication's appropriateness (Mintzes et al., 2003). Fourth, the industry markets directly to prescribers through advertisements, which studies find are often misleading about the effectiveness and safety of medications (Villanueva, Peiró, Librero, & Pereiró, 2003; Wilkes, Doblin, & Shapiro, 1992), and through sales representatives (Avorn, Chen, & Hartley, 1982).

It is difficult to evaluate whether the net effect of this comprehensive and well-funded marketing system on health care practices is positive or negative. However, there can be no doubt that the system exists primarily to increase prescribing rates. The elements of that system have been spelled out in some detail here to emphasize the intensity of efforts to influence decision making in pharmacotherapy.

Implications. Psychologists are encouraged to engage in activities likely to improve their awareness of pharmaceutical industry marketing on prescriptive practice, examples of which include the following:

1. Reviewing research on the effect of pharmaceutical industry advertising on prescriptive practice and on the relationship between industry funding and the published literature.

2. Reading conflict-of-interest statements in publications of drug trials, as the presence of a financial relationship with the maker of a medication is consistently found to be a significant predictor of positive outcomes (e.g., Perlis et al., 2005).

3. Relying primarily on independent reviews of the literature, such as Cochrane reviews (www.cochrane.org).

4. Examining study methodology carefully to detect potential biases in patient or treatment selection or other threats to internal or external validity that might bias the

outcome in favor of a pharmaceutical intervention (e.g., R. Smith, 2005).

5. Engaging in continuing education activities that challenge standard practice in pharmacotherapy.

6. Critically evaluating published literature for methodological weaknesses or medication risks.

7. Evaluating all reliable sources of data regarding clinical utilization of medications, including data emerging from postmarketing drug surveillance and sources other than industry-funded trials used in the approval of a particular medication.

Psychological research has contributed substantially to the understanding of interpersonal processes such as marketing. To cite a pertinent and particularly well-known example, while current professional standards in the prescribing professions often focus on limiting the size of gifts, cognitive dissonance theory suggests that small gifts can sometimes have a more powerful effect on attitudes and behaviors than large gifts (Festinger & Carlsmith, 1959). There is also research suggesting that more familiar products are generally assumed to be superior (Goldstein & Gigerenzer, 2002). This assumption is often effective in daily practice in that the better option is referenced more frequently, but marketing corrupts this process by directly increasing familiarity independent of relative effectiveness. Psychologists involved in prescribing or collaboration may benefit from considering the possible influence of well-known methods for attitude change on their decision making.

Psychologists with prescriptive authority may also find it helpful to review their own prescribing practices: the number of prescriptions written, the frequency of prescriptions written for various medications, the length of time patients remain on medication, and so forth. This information can alert psychologists that marketing may have subtly influenced their prescribing patterns.

Guideline 15. Psychologists with prescriptive authority are encouraged to use interactions with the patient surrounding the act of prescribing to learn more about the patient's characteristic patterns of interpersonal behavior.

Rationale. The patient's characteristic patterns of interpreting interpersonal situations inevitably play a role in the desire for medication, the reaction to the recommendation of medication, and compliance with the treatment regimen (e.g., Brockman, 1990; O'Neill & Bornstein, 2001).

Implications. The psychologist with prescriptive authority is encouraged to consider reactions such as excessive faith in the effectiveness of the medication, emotional reactions to the medication, and overt or passive resistance to the medication as clues to the patient's cognitive assumptions or characteristic patterns in interpersonal situations, or at least in interpersonal situations that involve health care professionals. These responses, and the hypotheses they generate about the patient, can be useful in achieving a transition from a purely biological intervention

to a more biopsychosocial approach to the patient's difficulties.

Relationships

Guideline 16. Psychologists with prescriptive authority are sensitive to maintaining appropriate relationships with other providers of psychological services.

Rationale. There are already various circumstances in which one mental health professional may refer to a psychologist for specialized services, referral for assessment perhaps being the most common. The emergence of the psychologist with prescriptive authority will undoubtedly produce circumstances in which mental health professionals refer to a psychologist for purposes of medication consultation only. Within this division of labor there exists the potential for miscommunication, differences in interpretation of the patient's problems, and differences in beliefs about optimal interventions. Rivalry can also develop between clinicians, with unintended iatrogenic effects. Feldman and Feldman (1997) noted,

Potential problems with two-therapist integration always exist, such as miscommunication, conflict, and competition between therapists . . . [and as a result] the patient may receive contradictory messages about their diagnosis or treatment. Therapists must avoid competing for the role of primary treatment provider because it interferes with the collaborative process, and by extension, optimal patient care. (p. 2)

Implications. Psychologists with prescriptive authority are encouraged to be alert to the potential for conflict when collaborating with nonprescribing colleagues. This can include maintaining frequent contact and/or working collaboratively to establish a comprehensive treatment plan that encompasses the activities of both providers.

Guideline 17. Psychologists are encouraged to maintain appropriate relationships with providers of biological interventions.

Rationale. Ethical Standard 3.09 of the APA (2002b) Ethics Code highlights the importance of cooperation with other professionals in service to patients. Psychologists who prescribe, collaborate, or provide information on pharmacotherapy will at times find they are working together with other health care professionals, a category that in some cases will include traditional healers offering complementary medical treatments. Collaborating and information-providing psychologists by definition work in conjunction with prescribing professionals, most of whom are not psychologists at this point, though they increasingly may be. Prescribing, collaborating, and information-providing psychologists are often dealing with patients who demonstrate comorbid medical conditions. Given the potential for drug-drug interactions and medical complications in such situations, collaboration with other health care providers actively involved in treating the patient can be particularly important.

Implications. When making referrals for biological interventions, psychologists consider the competencies of the provider. For example, psychologists may be tempted to refer pediatric patients to a prescribing psychologist over another prescribing professional without first considering whether that prescribing psychologist has pediatric competency. Instead, the psychologist resists such temptations and consistently considers the competencies of the other professional when making referrals for medication.

The psychologist with prescriptive authority is encouraged to make contact with other health care providers involved in patient care, with appropriate authorization, and to establish clear guidelines regarding responsibilities within their overlapping functions. Psychologists with prescriptive authority update the patient's primary medical caregiver of the pharmaceutical treatment plan as appropriate. The psychologist with prescriptive authority is also encouraged to establish policies to prevent confusion or redundancy in roles played or the medications prescribed. When a transfer of care or consultation with another provider is indicated and requested by the patient, the psychologist with prescriptive authority is encouraged to seek appropriate communication between all parties and to ensure optimal continuity of care.

Whenever a psychologist is involved in the practice of pharmacotherapy, the psychologist is encouraged to maintain ongoing consultation with the patient's primary health care provider(s), assuming the patient agrees to such contact. The primary care provider may in turn be reminded to alert the psychologist to any changes in the patient's health status that could affect the patient's treatment by the psychologist, whether that treatment involves pharmacotherapy or psychosocial interventions.

REFERENCES

- American Psychological Association. (2002a). Criteria for practice guideline development and evaluation. *American Psychologist*, 57, 1048–1051. doi:10.1037/0003-066X.57.12.1048
- American Psychological Association. (2002b). Ethical principles of psychologists and code of conduct. *American Psychologist*, 57, 1060–1073. doi:10.1037/0003-066X.57.12.1060
- American Psychological Association. (2002c). *Policies of other organizations and background materials: Pharmaceutical marketing, gifts, and financial support*. Washington, DC: Author.
- American Psychological Association. (2009). *Recommended postdoctoral education and training program in psychopharmacology for prescriptive authority*. Washington, DC: Author. Retrieved from <http://www.apa.org/about/governance/council/policy/txp-model-curriculum.pdf>
- Antonuccio, D. O., Burns, D. D., & Danton, W. G. (2002). Antidepressants: A triumph of marketing over science? *Prevention & Treatment*, 5, Article 25. doi:10.1037/1522-3736.5.1.525c
- Antonuccio, D. O., Danton, W. G., DeNelsky, G. Y., Greenberg, R. P., & Gordon, J. S. (1999). Raising questions about antidepressants. *Psychotherapy and Psychosomatics*, 68, 3–14. doi:10.1159/000012304
- Antonuccio, D. O., Danton, W. G., & McClanahan, T. M. (2003). Psychology in the prescription era: Building a firewall between marketing and science. *American Psychologist*, 58, 1028–1043. doi:10.1037/0003-066X.58.12.1028
- Ashton, A. K., Jamerson, B. D., Weinstein, W. L., & Wagoner, C. (2005). Antidepressant-related adverse effects impacting treatment compliance: Results of a patient survey. *Current Therapeutic Research: Clinical and Experimental*, 66, 96–106. doi:10.1016/j.curtheres.2005.04.006

- Avorn, J., Chen, M., & Hartley, R. (1982). Scientific versus commercial sources of influence on the prescribing behavior of physicians. *American Journal of Medicine*, 73, 4–8. doi:10.1016/0002-9343(82)90911-1
- Bayard-Burfield, L., Sundquist, J., & Johanssen, S.-E. (2001). Ethnicity, self-reported psychiatric illness and intake of psychotropic drugs in five ethnic groups. *Journal of Epidemiology and Community Health*, 55, 657–664. doi:10.1136/jech.55.9.657
- Beitman, B. D., Beck, N. C., Deuser, W. E., Carter, C. S., Davidson, J. R. T., & Maddock, R. J. (1994). Patient stage of change predicts outcome in a panic disorder medication trial. *Anxiety*, 1, 64–69.
- Beitman, B. D., & Klerman, G. L. (Eds.). (1991). *Integrating pharmacotherapy and psychotherapy*. Washington, DC: American Psychiatric Press.
- Beutler, L. E., Malik, M., Talebi, H., Fleming, J., & Moleiro, C. (2004). Use of psychological tests/instruments for treatment planning. In M. E. Maruish (Ed.), *The use of psychological testing for treatment planning and outcomes assessment: Vol. 1. General considerations* (pp. 111–146). Mahwah, NJ: Erlbaum.
- Brambilla, P., Cipriani, A., Hotopf, M., & Barbui, C. (2005). Side-effect profile of fluoxetine in comparison with other SSRIs, tricyclic and newer antidepressants: A meta-analysis of clinical trial data. *Pharmacopsychiatry*, 38, 69–77. doi:10.1055/s-2005-837806
- Brockman, R. (1990). Medication and transference in psychoanalytically oriented psychotherapy of the borderline patient. *Psychiatric Clinics of North America*, 13, 287–295.
- Brown, M., Frost, R., Ko, Y., & Woosley, R. (2006). Diagramming patients' views of root causes of adverse drug events in ambulatory care: An online tool for planning education and research. *Patient Education and Counseling*, 62, 302–315. doi:10.1016/j.pec.2006.02.007
- Brown, R. T., Antonuccio, D. O., DuPaul, G. J., Fristad, M. E., King, C. E., Leslie, L. K., . . . Vitiello, B. (2008). *Childhood mental health disorders: Evidence base and contextual factors for psychosocial, psychopharmacological, and combined interventions*. Washington, DC: American Psychological Association. doi:10.1037/11638-000
- Buelow, G. D., & Chafetz, M. D. (1996). Proposed ethical practice guidelines for clinical pharmacopsychology: Sharpening a new focus in psychology. *Professional Psychology: Research and Practice*, 27, 53–58. doi:10.1037/0735-7028.27.1.53
- Bull, S. A., Hunkeler, E. M., Lee, J. Y., Rowland, C. R., Williamson, T. E., Schwab, J. R., & Hurt, S. W. (2002). Discontinuing or switching selective serotonin-reuptake inhibitors. *Annals of Pharmacotherapy*, 36, 578–584. doi:10.1345/aph.1A254
- Bultman, D. C., & Svarstad, B. L. (2000). Effects of physician communication style on client medication beliefs and adherence with antidepressant treatment. *Patient Education and Counseling*, 40, 173–185. doi:10.1016/S0738-3991(99)00083-X
- Carr, J. E. (1978). Ethno-behaviorism and the culture-bound syndromes: The case of *amok*. *Culture, Medicine, and Psychiatry*, 2, 269–293. doi:10.1007/BF00051007
- Choudhry, N. K., Stelfox, H. T., & Detsky, A. S. (2002). Relationships between authors of clinical practice guidelines and the pharmaceutical industry. *Journal of the American Medical Association*, 287, 612–617. doi:10.1001/jama.287.5.612
- Chowdhury, A. N. (1996). The definition and classification of *Koro*. *Culture, Medicine and Psychiatry*, 20, 41–65. doi:10.1007/BF00118750
- Collins, W. J. (2000). Licensed psychologists: Psychopharmacology training. *Dissertation Abstracts International*, 61B, 2750.
- Davidoff, F., DeAngelis, C. D., Drazen, J. M., Hoey, J., Højgaard, L., Horton, R., . . . Wilkes, M. S. (2001). Sponsorship, authorship, and accountability. *Journal of the American Medical Association*, 286, 1232–1234. doi:10.1001/jama.286.10.1232
- Dawkins, K., & Potter, W. (1991). Gender differences in pharmacokinetics and pharmacodynamics of psychotropics: Focus on women. *Psychopharmacology Bulletin*, 27, 417–426.
- DeLeon, P. H., Robinson Kurpius, S. E., & Sexton, J. L. (2001). Prescriptive authority for psychologists: Law, ethics, and public policy. In M. T. Sammons & N. B. Schmidt (Eds.), *Combined treatment for mental disorders: A guide to psychological and pharmacological interventions* (pp. 33–52). Washington, DC: American Psychological Association. doi:10.1037/10415-002
- DiMatteo, M. R. (2003). Future directions in research on consumer-provider communication and adherence in cancer prevention and treatment. *Patient Education and Counseling*, 50, 23–26. doi:10.1016/S0738-3991(03)00075-2
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196, 129–136. doi:10.1126/science.847460
- Fabiano, G. A., Pelham, W. E., Jr., Gnagy, E. M., Burrows-MacLean, L., Coles, E. K., Chacko, A., . . . Robb, J. A. (2007). The single and combined effects of multiple intensities of behavior modification and methylphenidate for children with attention deficit hyperactivity disorder in a classroom setting. *School Psychology Review*, 36, 195–216.
- Feldman, L. B., & Feldman, S. L. (1997). Integrating psychotherapy and pharmacotherapy: Introduction. In *Session: Psychotherapy in Practice*, 3, 1–3. doi:10.1002/(SICI)1520-6572(199722)3:2<1::AID-SESS1>3.0.CO;2-Q
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology*, 58, 203–210. doi:10.1037/h0041593
- Flaskerud, J. H. (1986). The effects of culture-compatible intervention on the utilization of mental health services by minority clients. *Community Mental Health Journal*, 22, 127–141. doi:10.1007/BF00754551
- Friedman, M. A., Detweiler-Bedell, J. B., Leventhal, H. E., Horne, R., Keitner, G. I., & Miller, I. W. (2004). Combined psychotherapy and pharmacotherapy for the treatment of major depressive disorder. *Clinical Psychology: Science and Practice*, 11, 47–68. doi:10.1093/clipsy.bph052
- Goldstein, D. G., & Gigerenzer, G. (2002). Models of ecological rationality: The recognition heuristic. *Psychological Review*, 109, 75–90. doi:10.1037/0033-295X.109.1.75
- Grisso, T., & Appelbaum, P. S. (1998). *Assessing competence to consent to treatment: A guide for physicians and other health professionals*. New York, NY: Oxford University Press.
- Guarnaccia, P. J., & Rogler, L. H. (1999). Research on culture-bound syndromes: New directions. *American Journal of Psychiatry*, 156, 1322–1327.
- Haug, J. D. (1997). Physicians' preferences for information sources: A meta-analytic study. *Bulletin of the Medical Library Association*, 85, 223–232.
- Heres, S., Davis, J., Maino, K., Jetzinger, E., Kissling, W., & Leucht, S. (2006). Why olanzapine beats risperidone, risperidone beats quetiapine, and quetiapine beats olanzapine: An exploratory analysis of head-to-head comparison studies of second-generation antipsychotics. *American Journal of Psychiatry*, 163, 185–194. doi:10.1176/appi.ajp.163.2.185
- Holmer, A. F. (2001). Industry strongly supports continuing medical education. *Journal of the American Medical Association*, 285, 2012–2014. doi:10.1001/jama.285.15.2012
- Hylar, S. E., Gangure, D. P., & Batchelder, S. T. (2005). Can telepsychiatry replace in-person psychiatric assessments? A review and meta-analysis of comparison studies. *CNS Spectrums*, 10, 403–413.
- Jacobson, N. S., & Hollon, S. D. (1996). Cognitive-behavior therapy versus pharmacotherapy: Now that the jury's returned its verdict, it's time to present the rest of the evidence. *Journal of Consulting and Clinical Psychology*, 64, 74–80. doi:10.1037/0022-006X.64.1.74
- Johnson, J. A. (1997). Influence of race or ethnicity on pharmacokinetics of drugs. *Journal of Pharmaceutical Sciences*, 86, 1328–1333. doi:10.1021/js9702168
- Jørgensen, A. W., Hilden, J., & Gøtzsche, P. C. (2006, October 6). Cochrane reviews compared with industry supported meta-analyses and other meta-analyses of the same drugs: Systematic review. *British Medical Journal*, 333, 782. doi:10.1136/bmj.38973.444699.0B
- Kampman, O., & Lehtinen, K. (1999). Compliance in psychoses. *Acta Psychiatrica Scandinavica*, 100, 167–175. doi:10.1111/j.1600-0447.1999.tb10842.x
- Kilbey, M. M., Bourg, E. F., Brown, R. T., Coursey, R. D., France, C., Johnson, D. L., . . . Vuchinich, R. E. (1997). *Final report of the APA Board of Educational Affairs Working Group on Psychopharmacology Education and Training*. Retrieved from <http://www.apa.org/ed/resources/level-II.pdf>.
- Kilbey, M. M., Brown, R. T., Coursey, R. D., Eisdorfer, C., France, C., Johnson, D. L., . . . Vuchinich, R. E. (1995). *Final report of the BEA Working Group to Develop a Level I Curriculum for Psychopharmacology Education and Training*. Retrieved from <http://www.apa.org/ed/level1-curriculum.pdf>.
- Kramer, P. (1993). *Listening to Prozac*. New York, NY: Viking.
- Lasser, K. E., Allen, P. D., Woolhandler, S. J., Himmelstein, D. U., Wolfe,

- S. M., & Bor, D. H. (2002). Timing of new black box warnings and withdrawals for prescription medications. *Journal of the American Medical Association*, 287, 2215–2220. doi:10.1001/jama.287.17.2215
- Lexchin, J., Bero, L. A., Djulbegovic, B., & Clark, O. (2003). Pharmaceutical industry sponsorship and research outcome and quality: Systematic review. *British Medical Journal*, 326, 1167–1170. doi:10.1136/bmj.326.7400.1167
- Lin, K.-M., & Cheung, F. (1999). Mental health issues for Asian Americans. *Psychiatric Services*, 50, 774–780.
- Lin, K.-M., Smith, M. W., & Ortiz, V. (2001). Culture and psychopharmacology. *Psychiatric Clinics of North America*, 24, 523–538. doi:10.1016/S0193-953X(05)70245-8
- Maddox, J. C., Levi, M., & Thompson, C. (1994). The compliance with antidepressants in general practice. *Journal of Psychopharmacology*, 8, 48–52. doi:10.1177/026988119400800108
- Mantell, E. O., Ortiz, S. O., & Planthara, P. M. (2004). What price prescribing? A commentary on the effect of prescription authority on psychological practice. *Professional Psychology: Research and Practice*, 35, 164–169. doi:10.1037/0735-7028.35.2.164
- McGrath, R. E., Wiggins, J. G., Sammons, M. T., Levant, R. F., Brown, A., & Stock, W. (2004). Professional issues in pharmacotherapy for psychologists. *Professional Psychology: Research and Practice*, 35, 158–163. doi:10.1037/0735-7028.35.2.158
- Miller, W. R., & Rollnick, S. (Eds.). (2002). *Motivational interviewing: Preparing people for change* (2nd ed.). New York, NY: Guilford Press.
- Mintzes, B., Barer, M. L., Kravitz, R. L., Bassett, K., Lexchin, J., Kazanjian, A., . . . Marion, S. A. (2003). How does direct-to-consumer advertising (DTCA) affect prescribing? A survey in primary care environments with and without legal DTCA. *Canadian Medical Association Journal*, 169, 405–412.
- Mitchell, A. J. (2006). Depressed patients and treatment adherence. *Lancet*, 367, 2041–2043. doi:10.1016/S0140-6736(06)68902-2
- Monti, P. M., Wallander, J. L., & Delancey, A. L. (1983). Seminar training in APA-approved internship programs: Is there a core curriculum? *Professional Psychology: Research and Practice*, 14, 490–496. doi:10.1037/0735-7028.14.4.490
- MTA Cooperative Group. (1999). A 14-month randomized clinical trial of treatment strategies for attention deficit hyperactivity disorder. *Archives of General Psychiatry*, 56, 1073–1086. doi:10.1001/archpsyc.56.12.1073
- Olfson, M., Marcus, S. C., & Pincus, H. A. (1999). Trends in office-based psychiatric practice. *American Journal of Psychiatry*, 156, 451–457.
- Olfson, M., Marcus, S. C., Tedeschi, M., & Wan, G. J. (2006). Continuity of antidepressant treatment for adults with depression in the United States. *American Journal of Psychiatry*, 163, 101–108. doi:10.1176/appi.ajp.163.1.101
- O'Neill, R. M., & Bornstein, R. F. (2001). The dependent patient in a psychiatric inpatient setting: Relationship of interpersonal dependency to consultation and medication frequencies. *Journal of Clinical Psychology*, 57, 289–298. doi:10.1002/jclp.1012
- Pediatric OCD Treatment Team. (2004). Cognitive-behavior therapy, sertraline, and their combination for children and adolescents with obsessive-compulsive disorder: The pediatric OCD treatment study (POTS) randomized controlled trial. *Journal of the American Medical Association*, 292, 1969–1976. doi:10.1001/jama.292.16.1969
- Perlis, R. H., Perlis, C. S., Wu, Y., Hwang, C., Joseph, M., & Nierenberg, A. A. (2005). Industry sponsorship and financial conflict of interest in the reporting of clinical trials in psychiatry. *American Journal of Psychiatry*, 162, 1957–1960. doi:10.1176/appi.ajp.162.10.1957
- Pyne, J. M., Rost, K. M., Farahati, F., Tripathi, S. P., Smith, J., Williams, D. K., . . . Coyne, J. C. (2005). One size fits some: The impact of patient treatment attitudes on the cost-effectiveness of a depression primary-care intervention. *Psychological Medicine*, 35, 839–854. doi:10.1017/S0033291704003332
- Rey, J. A. (2006). Interface of multiculturalism in psychopharmacology. *Journal of Pharmacy Practice*, 19, 379–385. doi:10.1177/0897190007300734
- Rising, K., Bacchetti, P., & Bero, L. (2008). Reporting bias in drug trials submitted to the Food and Drug Administration: Review of publication and presentation. *PLoS Med*, 5, e217. doi:10.1371/journal.pmed.0050217
- Sakamoto, N., Martin, R. G., Kumano, H., Kuboki, T., & al-Adawi, S. (2005). Hikikomori, is it a culture-reactive or culture-bound syndrome? Nidotherapy and a clinical vignette from Oman. *International Journal of Psychiatry in Medicine*, 35, 191–198. doi:10.2190/7WEQ-216D-TVNH-PQJ1
- Sammons, M. T., & Schmidt, N. B. (Eds.). (2001). *Combined treatments for mental disorders: A guide to psychological and pharmacological interventions*. Washington, DC: American Psychological Association. doi:10.1037/10415-000
- Simoni-Wastila, L. (1998). Gender and psychotropic drug use. *Medical Care*, 36, 88–94. doi:10.1097/00005650-199801000-00010
- Skaer, T. L., Sclar, D. A., Robison, L. M., & Galin, R. S. (2000). Trend in the use of antidepressant pharmacotherapy and diagnosis of depression in the US: An assessment of office-based visits 1990 to 1998. *CNS Drugs*, 14, 473–481. doi:10.2165/00023210-200014060-00005
- Smith, M. H., Mendoza, R. P., & Lin, K.-M. (1999). Gender and ethnic differences in the pharmacogenetics of psychotropics (pp. 323–342). In J. M. Herrera, W. B. Lawson, & J. J. Stramek (Eds.). *Cross-cultural psychiatry*. New York, NY: Wiley.
- Smith, R. (2005). Medical journals are an extension of the marketing arm of pharmaceutical companies. *PLoS Medicine*, 2, e138. doi:10.1371/journal.pmed.0020138
- Smyer, M. A., Balster, R. L., Egli, D., Johnson, D. L., Kilbey, M. M., Lieth, N. J., & Puente, A. E. (1993). Summary of the Report of the Ad Hoc Task Force on Psychopharmacology of the American Psychological Association. *Professional Psychology: Research and Practice*, 24, 394–403. doi:10.1037/0735-7028.24.4.394
- Society for Academic Continuing Medical Education. (2004). *Biennial survey*. Retrieved November 29, 2004, from http://www.sacme.org/Biennial_Survey/results_2004.pdf
- Sperry, L. (1995). *Pharmacotherapy and psychotherapy: Strategies for maximizing treatment outcomes*. New York, NY: Brunner/Mazel.
- Stewart, M., Brown, J. B., Weston, W. W., McWhinney, I. R., McWilliam, C. L., & Freeman, T. R. (1995). *Patient-centered medicine: Transforming the clinical method*. Thousand Oaks, CA: Sage.
- Thase, M. E. (2003). Evaluating antidepressant therapies: Remission is the optimal outcome. *Journal of Clinical Psychiatry*, 64(Suppl. 13), 18–25.
- Treatment for Adolescents With Depression Study (TADS) Team. (2004). Fluoxetine, cognitive-behavioral therapy, and their combination for adolescents with depression: Treatment for Adolescents With Depression Study (TADS) randomized controlled trial. *Journal of the American Medical Association*, 292, 807–820. doi:10.1001/jama.292.7.807
- Turner, E. H., Matthews, A. M., Linardatos, E., Tell, R. A., & Rosenthal, R. (2008). Selective publication of antidepressant trials and its influence on apparent efficacy. *New England Journal of Medicine*, 358, 252–260. doi:10.1056/NEJMs065779
- U.S. Department of Health and Human Services. (2000). *Healthy People 2010: Understanding and improving health* (2nd ed.). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. (2001). *Mental health: Culture, race, and ethnicity—A supplement to “Mental health: A report of the Surgeon General.”* Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.
- Valenstein, E. (1998). *Blaming the brain: The truth about drugs and mental health*. New York, NY: Free Press.
- VandenBos, G. R., & Williams, S. (2000). Is psychologists' involvement in the prescribing of psychotropic medication really a new activity? *Professional Psychology: Research and Practice*, 31, 615–618. doi:10.1037/0735-7028.31.6.615
- Villanueva, P., Peiró, S., Librero, J., & Pereiró, I. (2003). Accuracy of pharmaceutical advertisements in medical journals. *Lancet*, 361, 27–32. doi:10.1016/S0140-6736(03)12118-6
- Walkup, J. T., Albano, A. M., Piacentini, J., Birmaher, B., Compton, S. N., Sherrill, J. T., . . . Kendall, P. C. (2008). Cognitive behavioral therapy, sertraline, or a combination in childhood anxiety. *New England Journal of Medicine*, 359, 2753–2766.
- Wilkes, M. S., Doblin, B. H., & Shapiro, M. F. (1992). Pharmaceutical advertisements in leading medical journals: Experts' assessments. *Annals of Internal Medicine*, 116, 912–919.
- Zito, J. M., Safer, D. J., Riddle, M. A., Johnson, R. E., Speedie, S. M., & Fox, M. (1998). Prevalence variations in psychotropic treatment of children. *Journal of Child and Adolescent Psychopharmacology*, 8, 99–105. doi:10.1089/cap.1998.8.99