

## Chapter 2

# Collaboration Between Pharmacologically Trained Psychologists and Pediatricians: History and Professional Issues

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Research demonstrates a substantial shortage in the availability of mental health prescribers. Thomas, Ellis, Konrad, Holzer, and Morrissey (2009) estimated that 96% of US counties do not have enough prescribers with specialty training in mental disorders to meet the need. The shortage of psychiatrists in the USA is only likely to worsen in the coming years given declines in the number of physicians pursuing a residency in psychiatry (Rao, 2003). Nowhere is the shortage of mental health prescribers more evident than in the treatment of children and adolescents. Various estimates of the shortage are available. The U.S. Bureau of Health Professions National Center for Health Work Force Information and Analysis concluded that more than 12,500 psychiatrists with specialized training in the treatment of children and adolescents would be needed by 2010 even to match the level of service provided in 1995, but only 8,300 will be available (Kim, 2003). To put this disparity in context, the Bureau of Labor Statistics indicates that there are only about 34,000 psychiatrists in the entire country, so 10% of the entire psychiatric work force would have to shift their specialization to children and adolescents just to meet the need. Others have suggested that the shortage may be far greater than that (Brauer, 2010).

It is estimated that approximately 1,500 psychologists across the country have completed postdoctoral training in psychopharmacology (Ax, Fagan, & Resnick, 2009) even though, in the absence of authorization to prescribe, there is little financial incentive for doing so. No information is available on how many of those psychologists specialize in the treatment of children, but given clinical opportunities in psychology one would expect a fair number have had extensive experience working with children. If more states pass prescriptive authority, the number of psychologists who have completed training may start to increase dramatically. Pharmacologically trained psychologists (PTPs) can play an important role in addressing the shortage of appropriate medication management for children and adolescents, whether as independent prescribers or as collaborators with pediatricians on medication decision-making.

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This chapter addresses several issues relevant to the discussion of collaboration between PTPs and pediatricians. The first section provides a brief outline of the history of the movement to train psychologists in pharmacotherapy. This information is included to provide a context for the subsequent discussion, and also as a resource for readers who are potentially interested in pursuing postdoctoral training in pharmacotherapy. The second section makes the case for using PTPs in the medication management of mental disorders, particularly for children and adolescents. The final section addresses professional issues that are likely to prove prominent in collaborative relationships between PTPs and pediatricians.

## **A Brief History of a Movement**

The movement to train psychologists in pharmacotherapy has its origins in a 1981 task force report to the American Psychological Association (APA) Board of Professional Affairs that proposed psychologists should become more involved in the provision of physical and biological interventions for mental disorders. The report concluded that the scope of practice of psychology included physical interventions appropriate to healthcare practice and within the practitioner's scope of competence (APA Board of Professional Affairs, 1981). The report received little attention at the time. Few seem to have recognized that it signaled an important turning point in how the association conceptualized the scope of clinical practice. Where the practice of psychology was traditionally based on whether or not an intervention emerged primarily out of psychosocial theory, the task force report suggested that the scope of practice could be defined in terms of the service needs of the patient. It also reflected the perception that psychologists should be trained to provide healthcare services in the context of the broader biopsychosocial model that was beginning to influence all aspects of the medical system (Engel, 1977).

In a 1984 presentation to the Hawaii Psychological Association, Senator Daniel Inouye noted the coming shortfall in the number of mental health prescribers and challenged psychologists to begin the quest to acquire prescriptive authority. By 1989, his challenge was being discussed at the highest levels within APA. The APA Board of Professional Affairs decided to endorse advanced training in psychopharmacology for psychologists. In 1995, the APA Council of Representatives adopted prescriptive authority as one of the association's goals (Fox, 2003).

In 1990, APA organized a task force specifically to discuss psychologists' involvement and training in pharmacotherapy. The report of this task force (Smyer et al., 1993) had a profound influence on the movement that was to follow. It described three levels of education and training for involvement in pharmacotherapy. Level 1 referred to the level of training that all psychologists involved in health care should receive. Given that a substantial number of individuals whom psychologists see for treatment are using medications (VandenBos & Williams, 2000), even psychologists providing psychotherapy should have some minimal understanding of psychotropic medications, their likely course of action, and common side effects.

The members of the task force intended Level 1 training to begin during doctoral training, with continuing education afterward. To date, only Georgia has mandated continuing education in psychopharmacology for all licensed psychologists.

Level 2 referred to training in preparation for active collaboration with pediatricians and other primary care physicians (PCPs) on medication decision-making, but without actual prescriptive authority. Level 3 referred to training in preparation for the independent authority to prescribe. Levels 2 and 3 required more intensive training and were therefore expected to be offered at the postdoctoral level. APA subsequently sponsored the development of a model curriculum for each of the three levels. The Level 1 curriculum was meant to be covered in a single graduate-level course (Kilbey et al., 1995). The Level 2 curriculum represented more intensive didactic training in various aspects of psychopharmacology (APA Board of Educational Affairs Working Group on Psychopharmacology Education and Training, 1997), while the Level 3 model curriculum required both didactic and supervised clinical experiences (APA Council of Representatives, 1996).

A parallel set of developments was emerging having to do with the founding of training opportunities in pharmacotherapy specifically geared to psychologists. The first was a pilot program funded by the US Congress in 1989 to train Department of Defense psychologists to prescribe. Opposition to the program from physicians slowed its implementation so that the first cohort of the Psychopharmacology Demonstration Project (PDP) did not begin training until 1991. Sammons and Brown (1997) have outlined the evolution of the PDP's curriculum. The most consistent theme was a gradual reduction in the demands of the program, from one that essentially matched the training of a physician's assistant or the first 2 years of medical school to one that involved half as many contact hours. Opposition to the program continued unabated, resulting in four independent evaluations (Newman, Phelps, Sammons, Dunivin, & Cullen, 2000), and despite very positive conclusions about the outcomes of the program it was discontinued in 1997.

In the private sector, the first training program was offered by the Prescribing Psychologists Register in 1993. Once APA established the Level 3 model curriculum, however, additional programs began to emerge. Other programs currently in operation include those at Alliant International University (starting in 1998), Nova Southeastern University (1999), Southwestern Institute for the Advancement of Psychotherapy and New Mexico State University (1999), Argosy University-Hawaii Campus (2000), and Fairleigh Dickinson University (2000). At least five other programs were founded but have since either ceased operation or seem to be indefinitely suspended. The APA College of Professional Psychology also began offering the Psychopharmacology Examination for Psychologists (PEP) in 2000 as a competency examination in psychopharmacology for psychologists.

These programs were all intended to offer Level 3 training, training in preparation for independent practice as a prescriber. No program has emerged specifically to offer Level 2 training. Instead, the *de facto* path to preparation for collaboration has become completion of the Level 3 didactic coursework through one of the available programs without participation in a supervised clinical experience.

As the number of psychologists pursuing Level 3 training increased, a variety of inconsistencies and impracticalities became evident in the model curriculum, particularly concerning the clinical experiences needed to complete the training. As a result, no program was able to comply with the guidelines completely, and another task force was impaneled to revise the model curriculum. The report of that task force has now been adopted as APA policy (APA Council of Representatives, 2009b). One of the recommendations made by the task force was the development of a system for evaluating programs for consistency with the new model. This system was expected to be more demanding than that used for sponsors of continuing education, which are referred to as “approved,” but less demanding than that used for clinical doctoral programs, which are referred to as “accredited.” Accordingly, such programs are to be referred to as “designated,” to avoid confusion with existing levels of program review. Guidelines for designation have now been adopted (APA Council of Representatives, 2009a), and program review began in the summer of 2010.

A third thread of developments in the movement to involve psychologists in medication decision-making has to do with enactment of legislation authorizing prescriptive authority in civilian settings. In 1993, the licensing law for psychologists was amended to allow prescriptive authority for psychologists participating in a “federal government sponsored training or treatment program” (Indiana Code 25-33-1-2(c)). To my knowledge, however, no psychologist has yet taken advantage of this authority. In 1999, the U.S. Territory of Guam was the first jurisdiction to award prescriptive authority to any appropriately trained psychologist (Guam Public Law 24-329). Subsequent political struggles over the regulations governing professions in the territory delayed the implementation of the statute for many years. Those issues have finally been resolved, and psychologists from Guam are now completing their training in preparation for becoming prescribers. Guam was followed in 2002 by New Mexico (New Mexico Administrative Code 16.22.20-16.22.29) and in 2004 by Louisiana (Louisiana Revised Statutes 37:1360.51-1360.72). The New Mexico and Louisiana laws were much more detailed than the Guam law, and are similar in terms of their implications for didactic training. The primary difference is that the Louisiana licensing law requires the psychologist to receive a master’s degree in psychopharmacology. Most training programs that remain operational now provide a degree upon completion, though a few still offer a certificate. The New Mexico bill also stipulates a program of at least 450 contact hours, but all current programs are consistent with that requirement.

The two state laws differ most in their expectations for supervised clinical experience. Upon completion of the didactic training and passage of a competency examination, usually fulfilled via the PEP, Louisiana psychologists are immediately eligible for licensure as “medical psychologists.” The law does not require a supervised clinical experience. Instead, the psychologist can only prescribe or change a prescription with the concurrence of the patient’s PCP. This represents an unusual relationship: the PCP is not the psychologist’s supervisor, the physician involved may be different for every patient, and the psychologist maintains primary responsibility for psychotropic medication decisions. However, the psychologist cannot act without the agreement of a physician involved in the patient’s care. The law was

modified in 2009 so that after three incident-free years of prescribing the psychologist can apply for a certificate of advanced practice. This certificate permits the psychologist to prescribe with complete independence.

In contrast, after the completion of coursework and the PEP, the New Mexico legislation requires the psychologist to complete an 80-h practicum in clinical assessment and pathophysiology and a 400-h/100-patient practicum under the supervision of a physician. The psychologist is then eligible for a conditional prescribing certificate. This is followed by two more years under the supervision of a physician. The psychologist can then apply for a certificate that allows independent prescribing, though there is still a requirement of on-going consultation with the patient's PCP.

## The Case for PTPs in Pediatric Care

Prescriptive authority for psychologists has been a topic of extensive debate for almost 20 years. I have provided a lengthy review of the arguments for and against prescriptive authority elsewhere (McGrath, 2010). For the present purposes, I will focus specifically on the question of whether PTPs can and should play a central role in addressing the shortfall in the availability of appropriate medical resources for children and adolescents with mental disorders.

The medical community is aware of the shortage of child/adolescent psychiatrists. Physicians have suggested three strategies for improving access to care. Not surprisingly, all three focus primarily on using physicians to fill the gap. Unfortunately, by doing so all three proposals fall short of addressing the real issue.

The first proposed solution is telepsychiatry, in which interactions between professionals and patients occur at distance. The most basic vehicle for telepsychiatric consultation is the telephone, though various organizations have been successfully experimenting with videoconferencing via the Internet. The popularity of telepsychiatry is growing, particularly as a means of providing services to children and adolescents without easy access to transportation to mental health facilities (Myers et al., 2010). Physicians have enthusiastically pursued telemedicine in various forms to expand their reach beyond the medical office, and several journals are now devoted exclusively to the discussion of telemedicine. Despite this enthusiasm, telepsychiatry remains a relatively rare phenomenon (Hailey, Ohinmaa, & Roine, 2009). Concerns about reimbursement, the ethical and legal issues associated with distance care (such as communications that cross state lines, and threats to the security of transmissions over the Internet), and the technological obstacles involved in maintaining a teleconferencing system have all hampered the growth of distributed medicine. More specific to the field of psychiatry, service provision at distance may make it easier to treat patients with limited access, but does nothing to offset the shortage of providers.

The other two approaches focus on improving PCPs' ability to identify and treat mental disorders. Most of these efforts involve short-term training programs on the nature and treatment of common mental disorders. In those few cases where

effectiveness has been evaluated, results have not been promising (Tiemens et al., 1999; Vicente et al., 2007), perhaps because of limited interest among PCPs in becoming more involved in the provision of mental health care.

In response to the limitations of brief training programs, the American Academy of Child and Adolescent Psychiatry has initiated the Post-Pediatric Portal Project, which abbreviates the traditional residency training in psychiatry from 4 to 3 years for pediatric physicians (Brauer, 2010). A recent review of the program indicated that in its first 3 years the program has attracted perhaps a dozen participants, and not all slots have been filled (Brauer). Though the Academy intends to recruit participants more aggressively, it is questionable how many active pediatricians will be willing to commit themselves to a second, if abbreviated, residency in psychiatry. Furthermore, solutions that rely heavily on PCPs providing more mental health care are unlikely to succeed given a growing shortage in PCPs (Lloyd, 2009). Nursing is similarly unlikely to be able to meet the shortfall given that Manderscheid and Henderson (2004) estimated that there were only 18,269 psychiatric nurses in the entire country in 2002.

Solutions that rely on PCPs and nurses are probably doomed to fail unless the financial rewards for doing so become substantially greater than the reimbursement system will permit. PCPs provide primary care for individuals with mental disorders primarily because they are unable to access mental health specialty care (Cunningham, 2009). It is not even a role for which they are well-trained, since PCPs often receive no formal training in pharmacotherapy let alone psychopharmacotherapy (Bazaldua et al., 2005). Individuals who are interested in working with individuals with mental disorders pursue training as a psychologist, social worker, or counselor. Of those, psychologists are the only doctoral-level providers, and, therefore, are most likely to be acceptable to PCPs as collaborators in the medication decision-making process. With over 100,000 psychologists involved in health care nationally, the PTP potentially offers the number of practitioners needed to meet the need.

Of course, the case for involving PTPs in pediatrics is still weak if the quality of advice (for collaborating PTPs) or direct service (for prescribing PTPs) is poor. Rigorous evidence on the treatment effectiveness of PTPs still needs to be collected. However, it is noteworthy that:

1. Psychologists have now been prescribing in the military for 15 years without a single complaint lodged in their service records. One psychologist, Alan Hopewell, was awarded the Bronze Star in part because of his work prescribing to soldiers with mental disorders. Based on their experiences with graduates of the PDP and the occasional psychologist who pursued training elsewhere and was privileged to prescribe, the Army, Navy, and Air Force have now all adopted regulations allowing for the privileging of prescribing psychologists.
2. Psychologists in New Mexico and Louisiana have written hundreds of thousands of prescriptions without a single complaint or malpractice claim.
3. The change to the Louisiana licensing law allowing for the certificate of advanced practice, prescribing without the approval of a physician, was instituted without opposition from physicians in the state.

The lack of evidence of substandard care from prescribing psychologists, despite close scrutiny by physicians, belies any claim that psychologists' training in

pharmacotherapy is inadequate. Another source of evidence for this conclusion comes from analyses of the training experience psychologists receive. A direct comparison of training hours for programs in medicine, psychology, and psychiatric nursing suggested that psychologists receive far more training in most areas directly relevant to the medication management of mental disorders than members of the other two professions (Muse & McGrath, 2010). A comparison of civilian training programs with the PDP suggested that they are roughly equivalent in most areas (McGrath, 2010). Both analyses suggested civilian Level 3 training programs were comparable or superior to other training models in all content areas except clinical medicine. However, it is important to remember that the psychologist is expected to refer all medical issues to a PCP, so it is unclear whether additional training in clinical medicine would translate into improved patient safety. In fact, there is evidence suggesting that psychiatrists also tend to depend on collaborative relationships with PCPs for general medical care. Surveys of psychiatrists indicate that they rarely perform physical examinations, and more than half admitted they either did not feel competent to conduct a general health examination or did not have the facilities for such an examination (Krummel & Kathol, 1987; Patterson, 1978).

Still, the large majority of individuals who have completed Level 3 didactic training cannot prescribe; and so at present they are only eligible to collaborate with a prescriber. It is difficult to argue against the value of collaborative relationships between PTPs and pediatricians. In this situation, the physician maintains the ultimate responsibility for medication decision-making, and can accept or reject the advice of the PTP. Theoretically, the outcome of decision-making should be no worse than that of the physician alone, though in reality that would only be the case if humans consistently optimized their decision-making.

## Professional Issues in Collaborating with Pediatricians

Three distinct contexts have evolved in which psychologists tend to collaborate with PCPs. The first is that in which the psychologist provides psychosocial services for mental disorders while the PCP maintains complete responsibility for all physical and biological interventions. These types of interactions between therapy providers and PCPs have been occurring for years, and Pace, Chaney, Mullins, and Olson (1995) provided a good introduction to the professional issues associated with that context.

Another context for psychologist–PCP interactions occurs when the psychologist with expertise in behavioral medicine provides psychosocial services for physical disorders while the physician maintains complete responsibility for parallel physical interventions. A more recent variant of this context involves psychologists working in integrated primary care settings, where a multidisciplinary team led by the PCP offers combined physical and psychosocial services to primary care patients. A number of publications in recent years have discussed the nature of professional relationships in these integrated care settings (Gunn & Blount, 2009; McDaniel & Fogarty, 2009).

Collaborations between PCPs and PTPs represent an even more recent development in professional relationships between the two disciplines. This context



occurs when the PTP plays a role in biological interventions for mental disorders, whether as prescribers or collaborators. This section will focus on issues specific to this last context, specifically involving psychologists with advanced training in clinical psychopharmacology. The following comments are presented in light of practice guidelines that have been developed (APA Council of Representatives, 2009c; see Table 2.1) to outline the implications of the APA *Ethical Principles of Psychologists and Code of Conduct* for psychologists' involvement in the process of pharmacotherapy. These guidelines were intended to inform the behavior of any psychologist who plays any role in the process of pharmacotherapy. Finally, much of what follows is generally relevant to PTP-PCP relationships, and so will be presented in that context. References to pediatricians will be reserved for those issues that are specific to children and adolescents.

The first issue that arises is how such relationships are established. In those states with prescriptive authority there is a legislative mandate to collaborate and consult with the PCP serving the individual; many of the bills that have been drafted to award prescriptive authority to psychologists actually prohibit prescribing unless the patient is also being seen by a PCP. As PCPs become aware of the potential for collaborating with prescribing psychologists, one can assume these relationships will become more formalized. PCPs are already familiar with some psychotropic agents. While less familiar with psychosocial interventions, they also tend to respect the potential for therapy as a healthcare tool. Accordingly, a provider who can deliver both services tends to make a great deal of sense to the PCP. In fact, prescriptive authority may well prove to be the most potent tool for convincing PCPs to recruit psychologists to participate in integrated primary care teams.

In many instances where students of psychopharmacology already have strong professional relationships with PCPs, they report that their colleagues are eager for them to reach a point in their training where they can collaborate more effectively even in states without prescriptive authority. The PTP who has not traditionally worked closely with PCPs, however, has to figure out how these new skills can be used to enhance his or her practice. This may require reaching out to PCPs more than in the past. In some cases, these contacts can be confusing to the PCP. Some PCPs, aware of the spread of prescriptive authority even in nondoctoral professions, will be surprised to hear psychologists do not yet have prescriptive authority. Others who are unaware of the movement for prescriptive authority within psychology will have to adjust to perceiving some psychologists as having expertise in biological interventions. Still others tend to categorize psychologists with ancillary professions such as occupational therapy to which the PCP makes referrals, and can be resistant to the idea of active collaboration on primary patient care.

Even PTPs who previously had little contact with PCPs and who practice in states without prescriptive authority can present active collaboration as a significant benefit to the PCP. One strategy is to develop a brief brochure that outlines what you can and cannot do, and describes how your services can enhance the PCP's practice. The ability to present a certificate or even a master's degree in clinical psychopharmacology carries with it a distinctive level of qualification to work effectively with physicians.



**Table 2.1** American Psychological Association practice guidelines regarding psychologists’ involvement in pharmacological issues

	Relevant Activities		
	Prescribing	Collaborating	Providing Information
<i>General</i>			
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	
<i>Education</i>			
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	
<i>Assessment</i>			
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		

(continued)

**Table 2.1** (continued)

	Relevant Activities		
	Prescribing	Collaborating	Providing Information
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
<i>Intervention and Consultation</i>			
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		
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		

(continued)

**Table 2.1** (continued)

	Relevant Activities		
	Prescribing	Collaborating	Providing Information
<i>Relationships</i>			
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

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However, brochures are easily discarded, and personal contact is essential to establishing relationships. One student of mine asked to speak at a local association of pediatricians for 30 min. He ended up answering questions for more than 3 h, and within 2 days had received several new referrals.

Guideline 17 in Table 2.1 urges psychologists at all levels of involvement in psychopharmacotherapy to maintain appropriate relationships with prescribers. There are a number of issues that are relevant to such relationships. The collaboration between PTP and PCP is very different than the traditional relationship where psychologists are only directly involved in psychosocial care for mental disorders. The latter relationship is often limited to information sharing, with medical management and psychotherapy proceeding in parallel. Occasionally the psychologist may believe that it is important to raise questions about the medical treatment with the patient or the PCP, but the psychologist’s role is usually minimal. The PTP–PCP relationship requires a greater level of interaction and collegial dialog. This is particularly true of the prescribing psychologist, for whom physicians treating the patient are an essential source of information about current medical status and drug regimen. Similarly, the PCP and other physicians should be aware of the psychologist’s treatment regimen. Regular communication about what drugs the patient is taking represents an essential component of competent care.

For the collaborating PTP, the psychologist is serving as a consultant to the PCP about drug choices, evaluating the patient and providing recommendations to the PCP about medication. The PTP needs to be clear about the specificity of the information desired by the PCP. The latter may be interested in diagnostic information, a conclusion about whether medication is warranted, what class of medications to use, or even a specific recommendation about what to prescribe and in what dosage. If the patient is seen by the PTP for psychotherapy, the collaborating psychologist may also become the professional who is primarily responsible for monitoring patient participation in the treatment, patient understanding of the treatment, side effects, patient reactions to the medication, and effectiveness. When the patient is a child, and parents play a particularly important role in the medication regimen, the PTP can regularly gather such data from all participants in the treatment. This is information

that must regularly be fed back to the PCP. Reactions to the medication and family patterns surrounding the medication regimen can provide insight into psychosocial issues to be addressed through the combination of pharmacotherapy and psychotherapy.

Relationships between the PTP and PCP can become tricky. There are several factors that can easily cause the PCP to experience discomfort with a PTP. Gruber (2010) noted that the psychologist's failure to use appropriate medical terminology or lack of understanding of how primary care settings function can sometimes cause physicians to devalue what the psychologist has to offer. For PTPs specializing in the treatment of children, familiarity with the practice parameters generated by the American Academy of Child and Adolescent Psychiatry (available at [www.aacap.org/cs/root/member\\_information/practice\\_information/practice\\_parameters/practice\\_parameters](http://www.aacap.org/cs/root/member_information/practice_information/practice_parameters/practice_parameters)) represents an essential resource when justifying the recommendations one makes to pediatricians.

More generally, psychologists and PCPs tend to approach illness in different ways. LeVine and Foster (2010) have recently suggested the term "psychobiosocial" to distinguish the psychological model of disease and treatment from the biopsychosocial perspective common among providers who come from a more traditional medical background. Psychologists must be sensitive to the relative importance psychologists and other therapists assign to contextual and situational factors versus symptom relief, and speak to PCPs in a manner that is likely to enhance rather than complicate collaborations.

Some physicians may perceive the psychologist as potentially undermining their authority. The American Academy of Pediatrics and other primary care associations have been advancing the concept of a "medical home," using PCPs as the coordinators of all healthcare services (American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association, 2007). This perception of the PCP as the leader of the treatment team is further reinforced by the gate-keeping functions PCPs are often required to play in managed care plans. The PCP who refers a patient either to a prescribing or collaborating PTP may be assuming that some form of biological intervention is warranted. A response recommending psychosocial intervention alone can create conflict. Compounding the issues for some PCPs is suspicion of nonphysicians in general, and mental health professionals in particular, providing recommendations about the treatment plan.

Yet another factor that can place the relationship at risk has to do with differences in scientific training. Many physicians have had very little training in scientific method and can be overly accepting of simplified conclusions and anecdotal evidence. Such an attitude can be especially dangerous given efforts by pharmaceutical companies to present research results in the most positive light possible. A PCP who regularly expresses enthusiasm to the PTP about some new medication only to hear expressions of skepticism from the PTP may well come to think of the PTP as simply negativistic and begin to limit those communications. Rather than responding immediately when confronted with excessive enthusiasm for a new treatment regimen, the PTP is better served by offering to research the matter further and replying

to the PCP with a summary of what the research has to say, with references. Even if not trained in science, physicians respect it. The PTP who can provide and summarize research offering in a more nuanced perspective can enhance patient care, and perhaps even raise the PCP's esteem for what the psychologist has to offer.

The collaborating psychologist must always remember that final decisions about medication – and the legal implications of those decisions – are the responsibility of the physician alone. In fact, it is recommended that psychologists who formally collaborate with prescribers from other professions make the limitations of their authority explicit in the informed consent process with the patient. The collaborating PTP need not always agree with the decision, but the PTP has to accept it. This can be particularly difficult when the patient disagrees with the PCP's decision. Even when addressing or helping the patient address concerns about the PCP's treatment decision, the PTP should remain respectful of the PCP's role in the process. Finally, it is important for the psychologist to keep in mind that psychosocial intervention can be a more expensive alternative to generic medications, and beyond the financial resources of many primary care patients.

Another complicating factor for the collaborating PTP is potential ambiguity in the legal status of providing input to physicians on medication decision-making. Fourteen boards of psychology have generated opinions or clarifications indicating that consultation on medications (Level 2) is within the scope of practice of psychology: California, District of Columbia, Florida, Louisiana (for psychologists without prescriptive authority), Maine, Massachusetts, Missouri, New Hampshire, New Jersey, New York, Ohio, Oklahoma, Tennessee, and Texas. These statements are available on-line at [www.rxpsychology.com/State\\_Opinions\\_on\\_Consultation.pdf](http://www.rxpsychology.com/State_Opinions_on_Consultation.pdf).

The board statements vary in their particulars. In some instances, it is implied that only psychologists can monitor the medication. In others, psychologists are explicitly permitted to discuss medications with the patient's physician, and in others, direct discussion with the patient is mentioned. None of the statements restricted such consultations to psychologists with postdoctoral training in psychopharmacology, but several noted that the psychologist should not discuss matters beyond his or her understanding of the medications involved. Given the differences, the psychologist in one of these jurisdictions should be familiar with the state board's statement. On the other hand, several states – including Connecticut, Maryland, Illinois, Colorado, Minnesota, and Virginia – have passed legislation prohibiting school personnel from recommending the use of psychotropic medications (Bentley & Collins, 2006), and this would include any psychologist in the context of employment by a school.

Psychologists who discuss medication decision-making with their patients in other settings where the authority for such discussions have not been officially approved or denied should be aware that the legal implications of doing so are ambiguous. Where there is ambiguity, the psychologist hoping to collaborate with physicians may well consider requesting a similar clarification from their board. Given the differences in the existing board opinions, such a request should specifically ask for (1) verification that the scope of practice of psychology includes on-going

monitoring of the medication and its side effects, discussing medications with the patient, and recommendations to the prescriber; and (2) an indication that the psychologist is responsible for evaluating the limits of his or her competence to engage in such activities as per Guideline 1 in Table 1. Providing previous statements from other boards may help make the case that such an opinion is warranted, and help shape the opinion so it is consistent with the existing examples.

It is unknown whether any psychologist has ever been penalized for rendering opinions on issues of medication management, though the fact that no such cases have ever come to light would suggest such cases may not exist. I would argue that it would be difficult to make such a case for two reasons. First, in the absence of prescriptive authority a recommendation from a psychologist to a prescriber is legally no different than the patient asking for a specific medication based on advertising or other sources of information. Second, all healthcare providers are expected to operate in what they see as the best interests of the patient.

A final issue that sometimes arises in collaborative relationships is confusion for insurers and health facilities about how to handle the billing of psychologists as consultants on medication issues. It is best to consider such consultation as an aspect of psychotherapy and use codes that these entities already associate with psychologists. In fact, open discussion of feelings about the medication and physical reactions has a therapeutic value, as many patients prescribed psychotropic medications have never had the experience of talking with their prescriber about the medication.

## **Case Example: Childhood Bipolar Disorder**

Despite these concerns, the PTP whose judgment is trusted by the PCP can play an extremely important role as a foil to treatment as usual. The PTP's greater understanding of the diagnosis of mental disorders, contextual factors in treatment, and treatment alternatives can allow for a unique perspective on the patient. In particular, the PTP can be a useful brake on efforts to medicate the child when medication is not the best option.

The biological training of the physician is not the only factor that can contribute to excessive faith in the use of medications. Parents often prefer a biological explanation for their child's behavioral problems because medication implies the potential for a quick fix, an implication reinforced by direct-to-consumer advertising; or because it reduces any concerns that the child's problems reflect their failure to parent effectively. This is not to suggest psychologists will be immune to social influence, but to the extent that PTPs can be trained to apply their scientific training to information about drugs they may be able to reduce reliance on medication.

This can be an important role, particularly in the case of children and adolescents. Many medications have never been studied in juvenile patients, and standard practice often involves simple extrapolation from treatment guidelines with adults. The long-term effects of many medications on the developmental process are

unknown. An even more disturbing trend is the growing rate of polypharmacy in adolescents (McIntyre & Jerrell, 2009) though even less is known about whether psychotropic medications have interactive effects on the developing individual.

A useful example of the problems with the existing system of medication management for children and adolescents is offered by the recent explosion in the number of children diagnosed with bipolar disorder. Once considered a very rare disorder, the number of children diagnosed with bipolar disorder and prescribed appropriate medications has exploded in recent years (Carlson, 2005).

Though part of this increase is attributable to changes in diagnostic criteria (Geller & Luby, 1997), Frances (2010) discussed it as an example of a “fad” diagnosis. He speculated that a diagnosis comes into vogue when it is associated with a pressing need, it generates compelling stories, and influential advocates publicize that story. In the case of childhood bipolar disorder, the diagnosis was a handy explanation for behavioral problems, one that came with an accepted method of treatment. A particularly insidious part of the process involved advocates for the diagnosis noting that because children with a family history of bipolar disorder demonstrate a wide array of symptoms, childhood bipolar disorder could not be identified using necessary or sufficient conditions. Instead, lengthy lists of “typical” symptoms were developed without any guidance about how many symptoms needed to be present for the diagnosis (Carlson, 2005). As a result, a large proportion of the child/adolescent population became eligible for diagnosis with a bipolar disorder in the absence of any evidence of mania or a family history of bipolar disorder.

The availability of medication with proven effectiveness for the treatment of bipolar disorder in adults was an essential contributor to the fad. Many children were prescribed mood stabilizers and antipsychotics despite significant questions about whether children without mania reflect a syndrome that is continuous with adult bipolar disorder, a lack of research on the use of these medications with children, and an absence of information about their impact on child or adolescent development.

It seems the phenomenon of the fad diagnosis is particularly prevalent in children, with attention deficit hyperactivity disorder most recently filling the role before childhood bipolar disorder. This makes some sense: parents are eager to find a solution for their children’s behavioral problems, diagnoses are often imposed on children without their collaboration or consent, and it is tempting to generalize treatment information that is clearly true for adults to children. However, a mental health provider who has a clear understanding of the diagnostic nosology of mental disorders and why that nosology relies on necessary and sufficient conditions rather than symptom lists (an approach rejected in academic psychiatry with the third edition of the diagnostic manual), demonstrates a sense of scientific skepticism about conclusions drawn on the basis of insufficient information, and is familiar with psychosocial alternatives to medication should be a more cautious consumer of information than the PCP. At the least, the psychologist can raise important questions about the irrational exuberance often demonstrated over mental disorders and their treatment via medication.



## Conclusions

There is an important role for the psychologist who has received advanced training in pharmacology to play in the treatment of mental disorder in pediatric settings. There are significant obstacles to be addressed, including providers and healthcare settings that are uncomfortable or unfamiliar with psychologists as collaborators in medication decision-making, psychologists' lack of understanding of the primary care setting, and the potential for competition or conflict between PCP and PTP. That being said, the PTP also has much to offer. In the case of the prescribing psychologist, these benefits are often obvious to the PCP, in that the psychologist removes the burden of treating mental disorders from the PCP completely. In the case of the collaborating psychologist, the benefits are not quite as clear but can still be made evident to most PCPs. Depending upon the PCP's comfort with the PTP, the PTP can still take on much of the burden of treatment with the one exception of writing the prescription. If the patient is also in therapy with the PTP, the PTP can take responsibility for the on-going monitoring of the patient's pharmacotherapy. Often, this model can also allow the family to be more honest about compliance with the prescription.

As the number of psychologists with advanced training in psychopharmacology increases, the role of the psychologist in the relationship with the pediatrician or other PCP will inevitably change. Once members of a profession are trained in a skill, they begin to use that skill. As PCPs realize the benefits of working collaboratively with PTPs, greater collaboration will take place. Collaborative relationships of the type described in this chapter can benefit the patient, through a better standard of care; the PCP, who is relieved of at least some of the burden of treating disorders for which he or she is poorly prepared; and the psychologist, who experiences increased opportunities as a provider.

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