School Psychology Quarterly, Vol. 10, No. 3, 1995, pp. 247-270

School Psychologists' Attitudes Toward An Expanded Health Care Role: Psychopharmacology and Prescription Privileges

Tom Kubiszyn, Ph.D.
American Psychological Association

Cindy I. Carlson, Ph.D.
University of Texas at Austin

The issue of prescription privileges for psychologists has been hotly debated within the American Psychological Association (APA) in recent years, Psychopharmacological intervention with both adults and school-age children has been on the increase, and likely will continue to increase in the future. The purpose of the present study was to examine for school psychologists the existing related roles, that is, psychopharmacology-related experiences, and attitudes toward emerging roles, i.e., psychopharmacology evaluation/research and prescription privilieges. The article profiles the results of a national survey of school psychologists who are members of the APA regarding these concerns. The survey was conducted as part of the efforts of the Division 16 Task Force on Psychopharmacology in the Schools. Survey results were expected to provide guidance regarding future training needs and advocacy efforts on behalf of the specialization of school psychology.

The issue of prescription privileges for psychologists has been hotly debated within the American Psychological Association (APA) in recent years (DeLeon, 1991, 1992; DeLeon, Fox, & Graham, 1991; Fowler, 1990). Psychopharmacological intervention with both adults and school-age children has been on the increase, and likely will continue to rise in the future (Barkley et al., 1990; Kubiszyn, Brown, DeMers, Landau & Reynolds, 1992; Smyer, Balster, Egli, Johnson, Kilbey, Leith, & Puente, 1992). Surveys to assess the attitudes of psychologists toward prescribing have been carried out by several APA groups and divisions (Barkley et al., 1990; Boswell, Litwin, & Kraft, 1988; Chatel, Lamberty, & Bieliauskas, 1993;

Support for this research was provided by the American Psychological Association Board of Directors and The Policy and Advocacy in the Schools Program of the Practice Directorate, Division 16 (School Psychology) of the American Psychological Association, and the National Association of School Psychologists.

Address correspondence to the author at American Psychological Association, Practice Directorate, 750 First Street, NE, Washington, DC 20002-4242.

Folen, 1989; Fox, 1991; Litwin & Boswell, 1989; Piotrowski & Lubin, 1989). Survey results suggest the majority opinion has shifted from opposing to supporting appropriately trained psychologists obtaining prescription privileges (Barkley et al., 1990; DeLeon, 1992; Fox, 1991).

Although the use of psychoactive medication in pediatric populations may have grown at a slower rate than for adults in years past (Wiener & Jaffee, 1985, cited in Brown, Dingle, & Landau, 1994), pediatric psychopharmacology, especially the use of stimulants, has recently become a rapidly growing field. For example, Safer and Krager (1988) documented a doubling in the rate with which stimulants have been prescribed in Baltimore County Schools every four to seven years since 1971. A steady increase in overall pediatric prescription of stimulants over the last two decades has also been documented (Wilens & Biederman, 1992).

Children spend a significant portion of their lives in school, and psychotropics are frequently administerered to children to reduce symptomatology associated with psychiatric disorders that negatively impact school performance. An increase in psychopharmacological interventions with children and adolescents can clearly be expected to have an impact on the practice and training of school psychologists. Despite the relevance of the pediatric psychopharmacological revolution for school psychology, attitudes within the school psychology community towards prescription privileges have apparently not been assessed.

The present article examines the respondents' existing roles, that is, psychopharmacology-related experiences, and attitudes toward emerging roles, psychopharmacology evaluation/research and prescription privilieges, for school psychologists. This article profiles the results of a national survey of school psychologists who are members of the APA regarding these concerns. The survey was conducted as part of the efforts of the Division 16 Task Force on Psychopharmacology in the Schools[1] in order to determine the relevance, training needs, and advocacy efforts associated with psychopharmacological interventions with children. Survey results were expected to provide guidance regarding future training needs and advocacy efforts on behalf of the specialization of school psychology.

1. The Task Force on Psychopharmacology in the Schools was chaired by the first author, Thomas Kubiszyn, Ph.D., under Division 16 President, Jonathan Sandoval, Ph.D., and Vice-President of Education, Training, & Scientific Affairs, Cindy Carlson, Ph.D. Task Force members included: Ronald T. Brown, Ph.D., Emory University; Steven Landau, Ph.D., Illinois State University; Stephen DeMers, Ed.D., University of Kentucky; Cecil Reynolds, Ph.D., Texas A & M University; and ex-officio member, Robert Resnick, Ph.D., APA. The complete findings of the Task Force have been reported elsewhere (Carlson & Kubiszyn, 1994; Brown, Dingle & Landau, 1994; DeMers, 1994; Kubiszyn et al., 1992; Kubiszyn, 1994). A copy of the Task Force Report can be obtained from the Task Force Chair, Dr. Tom Kubiszyn, Assistant Executive Director, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242.

Overview of Pharmacological Treatment for Child and Adolescent Mental Health Disorders

Although acknowledged to lag behind advances in the biological treatment of mental disorders in adults, both the discovery and application of pharmaceuticals to treat various psychiatric disorders in children has dramatically increased in recent years (Brown, Dingle, & Landau, 1994; Pelham, 1993). Major psychopharmacologic agents administered to children include stimulants, antidepressants, antipsychotics, anxiolytics, anticonvulsants, and other formulations with psychoactive effects. Excellent reviews on the topic of psychopharmacological interventions with children have recently appeared in the school psychology literature: Brown, et al., 1994; Carlson & Bunner, 1993; Gough, Speier & Cantwell, 1993; Handen, 1993; Waterman & Ryan, 1993). This body of literature is briefly summarized.

The most well-researched pharmacological treatment for children is the use of stimulants for attention-deficit hyperactivity disorder (ADHD). A voluminous literature attests to the short-term efficacy of stimulants on cognitive tasks (Brown et.al., 1994; Pelham, 1993). Recent research has also indicated the potential efficacy of stimulants for symptoms of conduct disorder and oppositional defiant disorder, particularly when ADHD is also present (Brown, Jaffe, Silverstein, & Magee, 1991). The use of stimulants to treat tic disorders in children with ADHD, and in children with acquired head injuries, is also promising (Brown, Dingle, & Deelin, in press). Relatively uncertain are the long-term benefits on academic performance of stimulant medication (Carlson & Bunner, 1993), and experts concur that medication alone is not adequate to treat the symptoms of ADHD (Pelham, 1993).

Antidepressants form another category of medication widely used with children and adolescents. Depression has only recently been recognized as a diagnostic entity for children, and empirical data to support the efficacy of antidepressants is lacking (Gadow, 1992; Pliszka, 1991). Similarly, few data are available regarding the efficacy of drug treatments for anxiety (Brown et al., 1994) or comorbid diagnoses of depression and anxiety (Waterman & Ryan, 1993). However, clomipramine hydrochloride, a tricyclic antidepressant, has been found effective in the treatment of obsessive-compulsive disorder in both adults and children (McGough et al., 1993).

Remaining categories of psychopharmacologic intervention include antipsychotics, anticonvulsants, and other formulations with psychoactive effects. As noted by Brown et al. (1994), there are a limited number of drug trials using antipsychotic medication with children and adolescents, and the available data suggest these agents are at best only moderately effective. Several antihypertensives, for example, clonidine and propranolol, have been found effective in the treatment of Tourette's disorder, as well as organically-based uncontrollable rage reactions, impulsive aggression, and self-injurious behaviors.

Summarizing the state of the science regarding current pediatric psychopharmacological practices, Kubiszyn (1994) noted: (a) children differ from adults in psychotropic absorption, distribution, metabolism, and excretion, thereby questioning the safety and efficacy of the common clinical practice of prescribing psychotropics for children based on adults with similar symptoms; (b) recent studies suggest many factors may be associated with pediatric medication responses, including family background and social context; (c) there is a relative lack of empirical support for pediatric psychotropic safety and efficacy, with the clear exception of stimulants for ADHD; and (d) prescriptions continue to be written despite the dearth of research.

Pediatric Psychopharmacology: Role Implications for School Psychology

Since most children attend school, the effects of psychotropic agents, both therapeutic and behaviorally or somatically toxic, are likely to be manifest in the school setting. Thus, the burgeoning field of pediatric psychopharmacology brings to school psychologists potential new role options consistent with the school as both an educational setting and a health service provider setting. These role options include the school psychologist as a psychotropic researcher, a monitor/evaluator of psychotropic medication, and a psychotropic prescriber (Kubiszyn, 1994). The first two roles build on the research training and empirical bias of doctoral-level school psychology training. The third role of prescriber is a significant expansion of role not only for school psychology, but also for the profession of psychology. Within the school setting, however, the appropriately trained school psychologist may be in the best position of any health care provider to make decisions to initiate, terminate and integrate not only pharmacological and psychotherapeutic interventions, but also educational interventions (Kubiszyn, 1994).

The proposed roles available to school psychologists would require distinctive levels of training (Kubiszyn, 1994). Three levels of training have been proposed by the APA Board of Directors Task Force on Psychopharmacology before psychologists become more actively involved in psychopharmacology. Level I expertise, appropriate for psychotropic researchers, would consist of Basic Psychopharmacology Education (a single psychopharmacology course with a biological bases prerequisite); Level II expertise, required for psychotropic monitors/evaluators, would consist of Collaborative Practice (multiple courses plus supervised practice/research); Level III expertise, Prescription Privileges, would require an undergraduate science degree, all of the above noted graduate coursework, plus a postdoctoral period of supervised clinical experience. These proposed roles, levels of training, and implementation models are comprehensively discussed in Kubiszyn (1994). DeMers (1994) describes the complex legal, ethical, and practical issues involved with school psychologists prescribing.

Surveys of Attitudes Regarding Prescription Privileges for Psychologists

Since 1981, several surveys have been completed to assess attitudes within the profession toward the expansion of the psychologist's role to include prescription privileges. The trend has been away from the largely negative opinions evident during the 1980s to recent surveys suggesting that, with appropriate training, the majority now support this expansion of the psychologist's role.

For example, almost 15 years ago, Bascue and Zlotowski (1981) randomly sampled Pennsylvania psychologists in independent practice. When asked whether they desired the legal right to prescribe, 58% ($N = 143$) said no and 36% said yes. However, 59% thought *future* psychologists should be trained to prescribe, while 41% said such training was unimportant. Females were significantly less desirous of the right to prescribe, and were less likely to think future psychologists should be trained to prescribe.

In the late 1980s, two surveys of APA members were completed by Boswell, Litwin and Kraft (1988, reported in Barkley et al., 1990) and Litwin and Boswell (1989, reported in Barkley et al., 1990). In each case 27% were in favor of APA advocating for prescription priviledges, while 51% and 49%, respectively, disagreed. Piotrowski and Lubin (1989) surveyed members of Division 48 (Health). Of their 270 respondents, 30% favored pursuit of prescription privileges while 61% were opposed. Folen (1989) reported a spilt in opinion among members of the Hawaii Psychological Association. While 34% strongly supported prescription privileges, 27% strongly opposed.

More recent surveys indicate that psychologists now see prescription privileges in an increasingly favorable light. Barkley et al. (1990) surveyed members of Child Clinical (Section 1) of Division 12 (Clinical). They found that 65% of the 534 respondents were in favor of appropriately trained psychologists prescribing while 34% were not. If prescription training was offered, 45% said they would pursue it, while 53% said they would not. Furthermore, illustrating the extent to which Section 1 members were already actively involved in psychotropic management, over 96% reported consulting with physicians about medication for child clients, with 78% consulting with physicians about psychotropics for children who were patients of the physician, not the psychologist.

In an independently conducted telephone survey of a random sample of 1505 APA members conducted by the APA Practice Directorate, Fox (1991) found that 68% of respondents favored prescription privileges for psychologists, after appropriate training was obtained, while 29% were opposed. Clinicians were more supportive than non-clinicians (70 % vs. 64%), and those under 40 were more supportive than those over 50 (72% vs. 61%). Seventy-one percent said the most effective argument in support of psychologists prescribing was that they could do a better job than the non-psychiatrically trained physicians who currently prescribe more than 70% of

psychotropic drugs. The potential for increased malpractice insurance rates was cited by 58% as the strongest argument against the proposal.

Chatel, Lamberty and Bieliauskas (1993) surveyed members of Division 40 (Clinical Neuropsychology) and found that 51.6% favored appropriately trained psychologists gaining prescription privileges. However, concerns were expressed about the practicality of incorporating such complex training into the already rigorous clinical neuropsychology training curriculum.

Of the studies listed, only the Barkley et al. (1990) survey specifically addressed issues related to prescribing for the pediatric population, and none surveyed the school psychology community. Thus, the present survey was developed to assess the attitudes, beliefs, interests, knowledge, and experience of school psychologists regarding the use of psychotropic medications with children and adolescents, and regarding doctoral-level psychologists and school psychologists obtaining prescription privileges.

METHOD

Procedure and Sample

The present survey was conducted with the 1993 membership (approximately 2000) of the APA-Division (16) of School Psychology and 1000 randomly selected members of the National Association of School Psychologists. Results from the Division 16 membership only will be reported in this article.

A mailing list of Division 16 members was obtained from the APA Office of Demographic, Employment, and Educational Research. Surveys were mailed to all members on the membership roster in four batches of 500. A follow-up reminder postcard was sent two weeks after initial mailing. A total of 571 surveys were returned. Returned survey questionnaires represented 29% of the membership. While a 29% return rate is considered adequate in most survey research, the controversial nature of this topic may have resulted in a disproportionate response from clusters of the sample with polar opposite opinions. That is, it may be that the respondents represent those subjects most ardently in favor of and opposed to the topic, with the majority who did not respond having more neutral or perhaps ambivalent opinions. Thus, the results reported here should be interpreted cautiously.

Characteristics of the final sample (N = 571) appear in Table 1. The largest percentage of survey respondents were employed in the school setting (42%), had earned a doctoral degree in school psychology (63%), and indicated secondary (30.5%) employment in private practice. Regarding experience level, respondents ranged from 1 to 56 years in the field, with a median of 18.5 years, and the majority (46.5%) claiming 11-20 years of experience. Respondents were fairly evenly distributed by sex with 289 male and 273 female school psychologists in the sample. Average age of the sample was 49 years with a median age of 45 years; age ranged from 21 to 86 years. The majority of respondents were European-

Table 1. Demographic Characteristics of Survey Respondents

Employment Setting	Primary Setting	Secondary Setting
School	208 (36.4%)	31 (5.4%)
Education Agency	26 (4.6%)	22 (3.9%)
Joint School-Agency	10 (1.8%)	5 (.9%)
Administrator	35 (6.1%)	14 (2.5%)
Professor	100 (17.5%)	34 (6.0%)
Part-time Private Practice	29 (5.1%)	174 (30.5%)
Full-time Private Practice	77 (13.5%)	8 (1.4%)
Other	77 (13.5%)	48 (8.4%)

Highest Degree Earned		Field of Highest Degree	
Ph.D.	358 (62.7%)	School Psychology	319 (62.7%)
Psy.D.	35 (6.1%)	Educational Psychology	89 (14.7%)
Ed.D.	84 (14.7%)	Clinical Psychology	68 (11.9%)
Specialist	40 (7.0%)	Counseling Psychology	42 (7.4%)
Master's	49 (8.6%)	Other	48 (8.4%)

American (90.5%) with 0.5-1% of respondents listing each of ethnic categories of African-American, Latino-Hispanic, Asian-American, and American-Indian.

Survey Instrument

The Psychopharmacology Survey was developed under the auspices of the Division 16 Task Force on Psychopharmacology in the Schools, in conjuction with the Psychology in the Schools Program, Practice Directorate of APA. The survey was organized into five areas:

1. experiences with the use of psychoactive agents with children (7 items);
2. attitudes about issues related to prescription privileges for psychologists (16 items);
3. reasons for and against limited prescription privileges for psychologists (16 items);
4. attitudes toward specialized training to prepare psychologists to dispense medication (5 items);
5. demographic data.

Initial item development was based on a review of an earlier survey conducted by the Child Clinical Section of Division 12 (Barkley et al., 1990) and consultation with the first author of that survey. This resulted in the inclusion of six items differing mainly in response options. Additional relevant survey domains were identified through consultation with the Task Force members. Items were selected,

and an item pool for the survey was developed by the first author. Final item selection and format were determined through consensus of the Task Force members and its APA Board of Directors liaison, Robert Resnick.

The final version incorporated a variety of item formats, including 16 Likert-type items, 11 multiple-choice items, 2 supply items which required the respondent to estimate the percentage of child clients of the respondent who have taken psychotropic medication, and the number of hours per week respondents would be willing to devote to psychopharmacology training, and a rating scale for the reasons for and against seeking prescription privileges for psychologists. A separate machine-scored response sheet was developed to facilitate the scoring process.

RESULTS

Attitudes Towards Granting Prescription Privileges to Psychologists and School Psychologists

Survey data regarding attitudes of school psychologists towards the granting of prescription privileges to psychologists appear in Table 2.

As shown in Table 2, about 59% of school psychologists agreed that appropriately trainined psychologists should be granted prescription privileges and about 25% disagreed. When the item was focused on granting prescription privileges specifically to school psychologists, approximately 50% of respondents were favorable and about 33% were unfavorable.

The majority of respondents (almost 57%) disagreed that mental health costs would increase if psychologists were granted prescription privileges; however, a sizable percentage (32%) were uncertain about this. A comparable response pattern was obtained for perceived increases in educational and mental health costs if school psychologists were granted prescription privileges.

School psychologists appeared divided on whether obtaining prescription privileges would lead to improved care for their clients. Approximately a third perceived that care would be improved; a third disagreed with this viewpoint; and a third were uncertain. School psychologists, however, overwhelmingly (90%) endorsed the use of psychosocial and educational interventions in conjunction with prescription of psychoactive formulations. Taken together these response patterns suggest school psychologists are more certain about the efficacy of psychosocial and educational interventions with children than the efficacy of psychopharmacological interventions.

ANOVAs of the above items yielded significant differences in response patterns by employment setting of the school psychologist (see Table 3). Post-hoc analyses with Tukey's test identified signficant pairwise comparisons.

School psychologists in private practice were most favorable toward presciption privileges for psychologists, and they were most likely to believe that services would be improved by granting prescription privileges (items #5 and #6). Private practitioners were also least likely to view mental health costs increasing with

Table 2. Attitudes toward Prescription Privileges for Psychologists and School Psychologists

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. Prescription privileges should be granted to appropriately trained doctoral-level psychologists.	27.3	32.0	14.7	13.7	11.6
2. Prescription privileges should be granted to appropriately trained doctoral-level *school* psychologists.	22.1	28.4	15.2	16.6	16.3
3. Granting prescription privileges to psychologists will significantly increase mental health costs.	3.7	7.4	32.0	35.0	21.8
4. Granting prescription privileges to *school* psychologists will significantly increase both educational and mental health costs.	3.9	11.0	31.3	35.0	17.9
5. Granting prescription privileges to *school* psychologists will lead to improved quality of care for clients.	11.9	26.1	26.3	21.4	13.5
6. Granting prescribing privileges to psychologists will better serve underserved populations (e.g., rural).	19.4	31.3	25.2	15.1	8.1
7. Psychologists who prescribe psychoactive formulations should be required to demonstrate appropriate psychosocial and education interventions have also been provided.	60.9	29.1	3.9	3.2	1.2

Note. The values represent mean percentages of respondents by category of response.

prescription privileges granted to either psychologists or school psychologists. Interestingly, employment setting did not influence the viewpoints of school psychologists in this sample regarding either the appropriateness of granting prescription privileges to school psychologists or the value of psychosocial and education interventions. Thus, a clear perspective emerges regarding the issue of prescription privileges with the opinions of school psychologists in private practice most favorable toward this issue.

Attitudes Toward Role Expansion to Include Psychopharmacology

Data appear in Table 4 regarding school psychologists' attitudes about expanding their role to include functions related to psychopharmacology. As shown in Table 4, 70% of the respondents were highly favorable regarding the *ability* of school psychologists to engage in school-based evaluations of the efficacy and side-effects of medication with children. Even more of the sample (77%) agreed that after appropriate training, the school psychologist's role should be expanded to include the evaluation of psychotropic safety and efficacy in the school population.

Table 3. Means and Standard Deviations of Attitudes toward Prescription Privileges by Employment Setting of the School Psychologist

	School Setting	Private Practice	University Setting	*F*	*p*
1. Prescription privileges should be granted to appropriately trained doctoral-level psychologists					
M	2.44	2.23[a]	2.73[a]	3.91	.05
SD	1.32	1.15	1.39		
2. Prescription privileges should be granted to appropriately trained doctoral-level *school* psychologists.					
M	2.70	2.64	2.97	1.81	ns
SD	1.40	1.32	1.38		
3. Granting prescription privileges to psychologists will significantly increase mental health costs.					
M	3.54[a]	3.87[ab]	3.48[b]	4.67	.01
SD	.98	1.03	1.13		
4. Granting prescription privileges to *school* psychologists will significantly increase both educational and mental health costs.					
M	3.44[a]	3.74[a]	3.49	3.19	.05
SD	1.00	1.06	1.04		
5. Granting prescription privileges to *school* psychologists will lead to improved quality of care for clients.					
M	2.91	2.88[a]	3.24[a]	3.02	.05
SD	1.21	1.21	1.22		
6. Granting prescribing privileges to psychologists will better serve underserved populations (e.g., rural).					
M	2.63[a]	2.30[ab]	2.74[b]	4.13	.05
SD	1.14	1.16	1.27		
7. Psychologists who prescribe psychoactive formulations should be required to demonstrate appropriate psychosocial and education interventions have also been provided.					
M	1.49	1.68	1.43	2.65	ns
SD	0.75	0.93	0.88		

Notes. The notations *a* and *b* indicate significant post-hoc group contrast effects.
Note: 1 = Strongly Agree; 2 = Agree; 3 = Uncertain; 4 = Disagree; 5 = Strongly Disagree.

Table 4. Attitudes Toward Expansion of Role to include Psychopharmacology

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. School psychologists, because of their research training and experience, would be well equipped to evaluate medication efficacy and side-effects with school-age children.	28.9	41.5	14.0	8.9	5.8
2. Expansion of the school psychologist's role to include evaluation of the effects of psychoactive medications is appropriate.	30.3	46.8	9.3	8.2	4.4
3. Expansion of the school psychologist's role to include the prescription of psychoactive medication is appropriate.	14.7	27.0	17.2	18.2	21.9

Notes. All items above also included the wording, "after appropriate training is obtained." Items have been abbreviated to increase readability.
The values represent mean percentages of respondents by category of response

Opinions were divided regarding the appropriateness of expanding the school psychologist's role to include prescription of psychoactive medication. A bimodal response pattern with 42% in favor and 41% opposed was obtained. Results of Tukey's test following an ANOVA of this item revealed that private practice school psychologists (M = 2.75, SD = 1.36) were more favorable in opinion when compared with university faculty (M = 3.22, SD = 1.39), $F(2.470) = 3.12$, $p < .05$; school setting practitioners' opinions were mid-range (M = 3.05, SD = 1.38).

Perceptions of Others' Response to Psychologists' Obtaining Prescription Privileges

Data from several items regarding perceived others' reactions to the granting of prescription privileges to psychologists appear in Table 5.

As shown on this table, the majority of school psychologists (65%) do not think the public's view of psychologists would be harmed if psychologists were granted prescription privileges. However, significant employment setting effects were obtained for this item with private practitioners again deviating from both school setting and university setting school psychologists, $F(2.469) = 5.17$, $p < .01$. Private practitioners (M = 3.99; SD = 1.05) were more likely to disagree that there would be a negative response from the public to granting prescription privileges than did school-based practitioners (M = 3.68, SD = 1.04) or university trainers (M = 3.57; SD = 1.08). Respondents were considerably more divided about the response of school personnel to this role change for school psychologists. Approximately 30% of the sample thought school personnel would be supportive; approximately 30% disagreed with this; and 40% were uncertain. In fact, respondents were more

Table 5. Perceptions of Others' Response to Psychologists' Obtaining Prescription Privileges

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. The public's perception of who psychologists are and what we do will be impacted negatively if psychologists are granted prescription privileges.	3.5	11.4	19.4	38.7	25.9
2. School personnel (e.g., teachers, counselors, administrators) would be supportive of school psychologists obtaining prescription privileges.	6.5	23.5	39.2	19.6	10.2
3. School personnel perceive that the needs of students in the psychopharmacological area currently are being adequately met.	.5	9.3	24.3	50.8	13.8

Note. The values represent mean percentages of respondents by category of response

uncertain (i.e., a higher percentage of uncertain responses were provided) regarding this item than any other in the survey, perhaps suggesting the relative novelty of this concept for school psychologists or school-based practice.

Despite the uncertainty about school personnel response to such a role change, school psychologists uniformly perceived that there was widespread dissatisfaction among school personnel with the adequacy of current psychopharmacological treatment of students within the school setting. Less than 10% of the sample indicated that school personnel believe children's needs in this area are being adequately met.

Reasons For and Against Limited Prescription Privileges

As part of the survey numerous reasons were identified that could be used to argue for or against limited prescription privileges for psychologists. School psychologists were asked to rank order both reasons for and reasons against granting prescription privileges to psychologists. Results of the rankings appear in Tables 6 and 7.

As shown in Table 6, the most strongly endorsed reason for granting psychologists prescription privileges was the opinion that psychologists were in the best position to meet the unmet needs of children for psychopharmacological assessment and intervention. Other reasons frequently acknowledged the status quo regarding the demonstrated efficacy of psychotropic agents or current practices associated with prescription privileges. School psychologists were least inclined to endorse reasons related to competition in the marketplace. Interestingly, as a group school psychologists were most ambivalent about the demonstrable efficacy of pharmacological agents for certain diagnoses; that item was not significantly endoresed at a level greater than chance and examination of the distribution indicated an essentially rectangularly distribution across the sample.

Table 6. Rank Order Frequency of Reasons Why Psychologists Should Seek Prescription Privileges

Rank	Reason	Mean	SD
1	Psychologists are in the best position to address the unmet psychopharmacological assessment and treatment needs of inadequately served children.	3.39	.11
2	The demonstrable efficacy of pharmacological agents for certain diagnoses makes their inclusion in treatment protocols almost mandatory.	3.64[a]	.11
3	Psychologists are frequently called upon by pediatricians and family physicians to make recommendations regarding medication effects and potential side effects, providing prescription privileges is the logical next step.	3.89	.10
4	If psychologists had the legal authority to prescribe medications, they would also have the power to terminate inappropriate medication treatment.	4.68	.10
5	Limited prescription privileges have already been obtained by other non-medical practitioners. Why not psychologists?	4.79	.11
6	Since doctoral trained psychologists are typically well trained in research methodology, extending prescription privileges to them would enhance the clinical research on pharmacological agents.	4.85	.10
7	Prescription privileges would allow psychologists to remain competitive in the clinical marketplace in view of the rapid expansion of psychopharmacology.	5.99	.11
8	Most psychologists indicate support for the notion of limited prescription privileges even though not all would be interested in obtaining such privileges.	6.07	.10
9	Prescription privileges would increase collections for third party payments for clinical services.	7.21	.10

Note. All items except 2 were endorsed at a level significantly different than chance.

The rank ordering of reasons against the granting of limited prescription privileges appear in Table 7. School psychologists most frequently ranked lack of training as the primary reason against granting prescription privileges to psychologists. Concern was also expressed regarding overreliance upon pharmacological interventions at the expense of more labor intensive psychosocial treatments, and similarly, a greater focus on biological/medical factors, thus the blurring of the distinction between psychology and psychiatry.

Since training was cited as the primary reason against granting prescription privileges, it is of interest to note school psychologists responses regarding training. School psychologists preferred that psychopharmacology training be received in a formal post-doctoral psychology training program, preferably held in the summer, and including a supervised practicum. The responses were unclear about how much time should be spent in additional training.

Table 7. Rank Order Frequency of Reasons Why Psychologists Should Not Seek Prescription Privileges

Rank	Reason	Mean	SD
1	Psychologists do not receive proper training in psychopharmacology as part of their standard graduate or post graduate experience.	2.67	.09
2	If granted, prescription privileges would exert pressure on psychologists to rely upon this cost effective pharmacological method, even though behavioral and psychotherapeutic interventions may be more efficacious and safer.	2.95	.08
3	Granting prescription privileges will cause a greater focus on biological/medical factors, thereby diluting the distinction between psychology and psychiatry.	3.52	.09
4	Efforts to obtain prescription privileges will lead to hostile opposition and animosity from psychiatry (i.e., the political costs will be too great).	4.48	.08
5	Since psychologists may be less available than physicians in rural and underserved areas, they will not be able to meet the unmet needs of vulnerable segments of the population.	4.79	.07
6	Most psychologists are not interested in obtaining prescription privileges.	4.92	.07
7	Since the most medications are of limited efficacy, the medications add little to the armament of psychologists.	5.12	.07

Note. All items were endorsed at a level significantly different than chance.

Attitudes Toward and Experiences in the Use of Psychoactive Agents with Children

Opinions regarding the use of psychotropics with child and adolescent populations appear in Table 8.

A clear majority (82.3%) of respondents recognized that FDA approval does not necessarily mean that a drug is equally safe for adults and children. Similarly, a majority (79.4%) recognized that FDA approval does not imply equal effectiveness with adults and children, despite similar symptoms (item #2). A majority of school psychologists also concluded that current medication evaluation methods were inadequate (64.8%). In sum, considerable skeptism is evident among school psychology respondents regarding the safety and adequate evaluation of efficacy of psychoactive medication for children and adolescents .

Experience with Psychoactive Agents

Results of survey items measuring the level of experience of school psychologists with psychoactive medication with children appear in Table 9. Respondents indicated they were quite likely (93%) to seek consultation from a physician regarding the use

Table 8. Opinions Regarding Psychotropics for Pediatric Use

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. Psychoactive formulations approved by the FDA are equally safe for adults and children.	.4	2.1	14.0	40.6	41.7
2. Psychoactive formulations approved by the FDA are equally effective for adults and children with similar symptoms.	.2	2.6	16.3	41.7	37.7
3. Existing methods for evaluating medication efficacy are adequate.	.9	14.5	18.6	48.5	16.3

Note. The values represent mean percentages of respondents by category of response.

of psychoactive medication for a child client, but much less likely (38%) to be consulted by a physician regarding medication decisions concerning children seen by the physician alone. Physician consultation with psychologists increased when the child was a patient of both the psychologist and physician (78%). While 79% of school psychologists have been involved in evaluating medication effects, only 59% had been asked to do so by a physician. This suggests that although physicians may not

Table 9. Reported Experience with Psychoactive Agents with Children

Frequency during Career	Never	10 times or less	11-20 times	More than 20 times
During your career, how often have . . .				
. . . you *sought consultation from a physician* regarding the potential or actual use of a psychoactive medication for a child client of yours?	6.8	25.6	17.5	49.7
. . . *physicians consulted with you* about prescribing a psychoactive medication to a child client *you both* are seeing?	22.1	40.1	9.6	27.8
. . . *physicians consulted with you* about prescribing a psychoactive medication to *a child patient of the physician only*?	62.0	22.6	5.8	9.1
. . . you been asked by a physician to evalute the effects of a psychoactive medication on a child by using pre- and post-treatment rating scales, tests, or other systematic methods?	40.8	31.0	11.2	16.6
. . . you actually used rating scales, tests, or other systematic methods to evaluate the effects of psychoactive medication on children?	21.0	32.6	13.0	38.1

Note. The values represent mean percentages of respondents by category of response.

Table 10. Reported Experience with Psychoactive Agents with Children by Employment Setting

Frequency during career	School practice	Private practice	University professor
During your career, how often have . . .			
. . . you *sought consultation from a physician* regarding, the potential or actual use of a psychoactive medication for a child client of yours?			
M	2.11	2.44	1.71
SD	.96	.89	1.10
. . . *physicians consulted with you* about prescribing a psychoactive medication to a child client *you both are seeing*?			
M	1.23	1.79	1.35
SD	1.04	1.16	1.16
. . . *physicians consulted with you* about prescribing a psychoactive medication to *a child patient of the physician only*?			
M	.46	.87	.56
SD	.80	1.06	.90

Notes. 0 = Never; 1 = 10 times or less; 2 = 11-20 times, 3 = more than 20 times. All means are significantly different ($p < .05$).

always request medication evaluations from school psychologists, many do so in their private or school-based practice of psychology.

The experiences with psychoactive medication with children items were analyzed with one-way ANOVAs to determine if differences in school psychologists' experience with medication were a function of employment setting and years in practice. In general, significant differences were obtained for school psychologists in private practice, school practice, and university settings regarding physician consultation experiences. Results of the analyses appear in Table 10. Employment setting was found to significantly differentiate seeking physician consultation, $F(2,474) = 14.55$, $p < .001$, being consulted by a physician on a joint case, $F(2, 474) = 8.55$, $p < .001$, and being consulted by a physician on a child patient of the physician's only, $F(2,474) = 8.12$, $p < .001$. Post-hoc analyses using Tukey's test revealed that in all three types of experience, not surprisingly, private practitioners reported greater frequency of these events when compared with both school-based practitioners and university faculty. Males reported greater frequency of being consulted by physicians regarding medication use with children than did females, (male $M = .71$, $SD = 1.0$; female $M = .53$, $SD = .89$; $t = (1,559) = 2.21$, $p < .05$).

Survey respondents were also asked about the percentage of their child clients who were using or had used various categories of medication. Survey results

Table 11. Variations by Employment Setting in Reported Percentage of Child Clients on Medication

Medication	School practice	Private practice	University professor
Stimulants (e.g., Ritalin, Cylert, Dexedrine, Desoxyn)			
M	16.92[a]	25.68[a]	22.14
SD	18.27	22.01	24.89
Antidepressants (e.g., Tofranil, Elavil, Norpramine, Prozac)			
M	4.82[a]	8.41[ab]	5.49[b]
SD	7.17	7.93	6.21
Antiepileptics (e.g., Tegretol, Dilantin, phenobarbital)			
M	4.54	6.32	4.61
SD	6.25	8.32	5.97
Antipsychotics (e.g., Mellaril, Haldol, Stlazine, Navane)			
M	2.19	3.06	3.05
SD	3.76	4.93	4.87
Anxiolytics (e.g., Xanax, Buspar, Valium, Ativan)			
M	1.36	1.84	2.27
SD	4.62	3.45	3.81

Note. The superscript notations a and b indicate significant post-hoc contrast effects ($p < .05$).

indicated the following mean percentages for each medication category: stimulants, 20.01%; antidepressants, 6.19%; antiepileptics, 5.37%; antipsychotics, 2.99%; and anxiolytics, 1.68%. Not surprisingly, school psychologists see far more children taking stimulants than all other medication classes combined.

Experiences with various categories of medication also varied by employment setting of the school psychologists. ANOVAs indicated that school psychologists in schools, private practice, and university settings had differential exposure to children on stimulants, ($F(2, 454) = 7.34, p < .001$) and children on antidepressants, ($F(2, 454) = 9.14, p < .001$). Similar to findings regarding physician consultation regarding medication, Tukey's post-hoc tests revealed that school psychologists in private practice were more likely to report child clients on these medications. Means and standard deviations appear in Table 11.

When examined from the perspective of how many school psychologists have had some experience with child clients on the various forms of medication, data support the following: (a) nearly all respondents (97.6%) have had child clients taking stimulants; (b) more than two-thirds have had child clients on antidepressants (82.6%) or antiepileptics (83.6%); (c) more than half (68.4%) have had

exposure to children on antipsychotics; and almost half (42.2%) have had child clients on anxiolytics.

Comparison of School Psychology and Clinical Child Psychology Survey Responses

In order to compare the attitudes of school psychologists with those previously reported for child clinical psychologists stems of six items from the Child Clinical Section Survey (Barkley et al., 1990) were included in the current survey, with an additional response option. Three items concerned the reciprocal physician consultation experiences of psychologists regarding medication with children; one item concerned attitudes toward prescription privileges; one item concerned opinion regarding improvement of clients were prescription privileges granted to psychologists; and one the setting in which additional training should be provided.

Regarding the granting of prescription privileges to appropriately trained psychologists, the opinions of school and clinical psychologists appear roughly comparable. As shown in Table 2, approximately 60% of school pscyhologists were favorable and 25% unfavorable. Results of the child clinical survey obtained an agreement rate of 65% and a disagreement rate of 34% for a similar item (Barkley et al., 1990). Thus, while school psychologists agreed with this item slightly less than child clinical psychologists, they also disagreed less frequently. Both groups also were similar in selecting a formal postdoctoral program with a supervised practicum as a training venue.

In contrast, opinion diverged considerably regarding the degree to which such prescription privileges would lead to improved quality of care for clients. Whereas school psychologists were quite divided on this item, (see above discussion), a similar item from the Barkley et al. (1990) survey found that 80% of child clinical psychologists believed prescription privileges would lead to improved treatment of clients. Thus, there appears to be significant differences between school and child clinical psychologists in the perceived efficacy of psychoactive drugs for the pediatric population.

One possible explanation for the differences in expectancies regarding the efficacy of medication for children may lie in differences in experiences with psychoactive medication. A comparison of Division 16 and Division 12 (Child Clinical) responses to the item, "how often have physicians consulted with you about prescribing a psychoactive medication to a child client of the physician only", found that across the board, child clinical psychologists reported being contacted by physicians more frequently than did school pscyhologists. Specifically, 62% of school psychologists were never consulted by physicians regarding medication whereas only 21% of child clinical psychologists reported this, and 51% of child clinical psychologists reported having been consulted 10 or more times whereas only 15% of school psychologists reported being consulted 10 times or more during their careers. Furthermore, 82% of

the child clinical sample was asked by physicians to evaluate medication effects, while only 59% of the school sample was asked.

Rates of seeking physician consultation regarding medication are comparable between school and child clinical psycyhologists. Both child-related specialities reported seeking physician consultation regarding medication for child clients more than 10 times in their careers with comparable percentages (67.2% of school psychologists and 71% of child clinical psychologists). Taken together these data suggest that the need for information regarding medication of child clients is comparable across child clinical and school psychologists; however, physicians may view child clinical psychologists as having more expertise in this area than school psychologists such that consultation is more likely to be reciprocal.

DISCUSSION

The survey results clearly indicate that school psychologists are already actively and substantively involved in pediatric psychopharmacology. School psychologists seek consultation from, collaborate with, and, less frequently, even advise physicians about pediatric psychopharmacologic treatment decisions. Nearly half the respondents sought physician consultation about medication more than 20 times, with more than two-thirds seeking consultation more than 10 times. Of perhaps greater potential importance to our child clients, physicians have sought consultation about pediatric psychotropics for clients/patients in common from more than three-fourths of the school psychologists in the sample. A striking finding was that more than one-third of the sample reported that physicians consulted them about psychopharmacological treatment of child patients of the physician alone. Thus, physicians already are seeking consultation and guidance from school psychologists about pediatric psychopharmacological interventions.

Given these data, the need for at least Level I (i.e., a basic course) predoctoral training in psychopharmacology is apparent and overdue. This is consistent with the recommendations of the APA Board of Directors Task Force (Smyer et al., 1992). However, since school psychologists are already consulting with physicians, Level II (i.e., consultation training) may be more appropriate, especially since consultation needs will likely increase in the future, regardless of whether psychologists ultimately obtain prescription privileges (i.e., Level III training).

School psychologists also are involved in evaluating pediatric psychotropics. Almost 80% of the sample have evaluated the safety and efficacy of psychotropics, although just under 60% have been asked to do by the prescribing physician. Teacher and parent rating scales were the most popular measures used, followed by psychological tests. A variety of other measures also were employed. Nonetheless, 64.9% feel that existing evaluation methods are inadequate. This finding suggests that better training in psychopharmacological evaluation would be welcome by school psychologists. It is not clear, however, whether the dissatisfaction

is due to inadequacies in psychopharmacological training, limited training in instrumentation, or the limited practicality of existing, ecologically valid procedures such as those developed by Gadow, Nolan, Paolicelli, and Sprafkin (1991) and Fischer and Newby (1991) for ADHD students taking stimulants.

Widespread use of psychotropic medications within the schools also was suggested by survey results. Nearly all (97.6%) of the sample reported having had a child client who was taking stimulants, more than 80% reported having clients taking antidepressants and antiepileptics, 68% reported having a client on antipsychotics, and 42% reported child clients taking anxiolytics. The median estimated percentage of current or past clients on various medications ranged from about 20% for stimulants to less than 2% for anxiolytics.

Findings regarding the innovative expansion of the already busy school psychologist's role to include formal involvement in pediatric psychopharmacology were striking. Most respondents felt strongly (70.4%) that because of their training, experience and setting, appropriately trained school psychologists would be well-suited to evaluate pediatric psychopharmacological treatments. They also strongly support (77.1%) expansion of the appropriately trained school psychologist's role to include the systematic evaluation of medication safety and efficacy. However, only 41.7% supported role expansion to include prescription privileges for appropriately trained school psychologists.

Regarding the issue of prescription privileges, school psychologists mirrored the trend toward support for this movement noted in surveys over the last few years (Barkley et al., 1990; Chatel et al., 1993; Fox, 1991). While 59.3% supported such privileges for appropriately trained psychologists, another 25.3% did not. In general, the majority of respondents believed that granting prescription privileges to psychologists would not increase educational or mental health costs, or harm the public's perception of psychology, and that underserved populations would be better served.

Interestingly, the sample was less favorable toward appropriately trained school psychologists prescribing. While 50.5% thought appropriately trained school psychologists should be granted privileges, 32.9% disagreed. Furthermore, only 41.7% supported expansion of the school psychologist's role to include prescribing, with 40.1% disagreeing. Thus, respondents were less favorably inclined toward school psychologists prescribing than toward psychologists in general, and were even less favorable toward prescribing becoming an integral part of the school psychologist's role.

School psychologists appear, on the whole, to be concerned about the efficacy of pediatric psychotropics, at least as the only intervention to be used with children. This opinion would appear to be appropriate given the limited empirical support evident in the literature for the efficacy of psychotropics with child populations. When asked whether granting prescription privileges would improve the quality of care for our child clients, 38% of the respondents agreed and 34.9% disagreed.

Furthermore, 90% agreed that if school psychologists prescribe they should be required to demonstrate that psychosocial and educational interventions have also been provided; only 4.4% disagreed. School psychologists are skeptical of the appropriateness of medication in isolation as a viable treatment modality.

One of the goals of this survey was to assess the similarities and differences between school psychologists, as indicated by responses to this survey, and child clinical psychologists, as indicated by responses to the Barkley et al (1990) survey. The groups were similar in seeking physician consultation regarding medication decisions, in agreeing that appropriately trained psychologists should be granted prescription privileges, and that such training should be postdoctoral and obtained through psychology rather than psychiatry programs. An important difference, however, was the extent to which physicians sought consultation from each sample. Survey results suggest that physicians, when faced with psychopharmacological decisions, currently do not view school psychologists to be as knowledgeable as child clinical psychologists. Whether there is any substance to this inference was not addressed by this survey, but it appears worth investigating. School psychologists may be viewed, perhaps correctly, as educational experts, but not as medication consultants or evaluators. This may be valid for medication issues, given the scant psychopharmacological training currently available to most school psychologists. It is uncertain whether such training is more accessible to child clinical psychologists.

According to survey results, evaluation is a strength for most school psychologists, although it is not utilized by physicians. Thus, it would appear that physicians are unaware that school psychologists, because of their training, familiarity with the culture of the school, and their interrelated educational and psychological orientations, may be in the best position to help implement, integrate, monitor, and evaluate psychopharmacological interventions. Moreover, school psychologists could be instrumental in coordinating such interventions with psychosocial and educational interventions. In any case, if school psychology desires to be viewed as equally competent with child clinical psychology, physician perceptions will need to be expanded.

The conclusions of this survey are limited by the usual limitations of survey research. While the data do not indicate this, the possibility exists that respondents were not a random sample. Those most interested in psychopharmacology, or in favor of prescription privileges, may have responded in disproportionate numbers, thereby biasing the findings in their favor. However, given the volatility of the debate over this issue in years past, it seems likely that those who are against involvement in psychopharmacology, and against prescription privileges, would have been as strongly motivated to respond. In addition, the overall findings are comparable to those obtained from recent surveys, suggesting that the respondents are not systematically different from previously sampled psychologists.

In the future it would be helpful to obtain data from a more multiculturally diverse

sample. Sampling the attitudes of school personnel, parents and older students towards pediatric psychopharmacology and prescription privileges could point out potentially important areas for further needs assessment and educational interventions to enhance treatment compliance, safety and efficacy. Finally, given the respondents' overwhelming support for integrated psychopharmacological, psychosocial and educational interventions, studies of the most efficacious ways to ensure that such integrated treatment is delivered are needed. This would help ensure that school psychology is properly positioned to deliver integrated traditional (i.e., psychosocial, educational) and innovative (i.e., psychopharmacological) mental health services to our clients in the health care environment of the future.

The survey demonstrates that considerable interest exists within the school psychology community for increased and innovative involvement with pediatric psychopharmacology. The establishment of mechanisms to enable interested practitioners to obtain needed training and experience appears to be one of hurdles to be overcome. Another appears to be educating physicians, school personnel, parents and students about the appropriateness of involving the school psychologist more actively in pediatric psychopharmacology. Once this occurs, appropriately trained school psychologists, by virtue of their familiarity with the culture of the school, experience, and interests, will be well-positioned to assume leadership roles in all aspects of pediatric psychopharmacology, thereby contributing substantially to the improved future delivery of health care services.

REFERENCES

Barkley, R.A., Connors, C.K., Barclay, A., Gadow, K., Gittleman, R., Sprague, R.L., & Swanson, J. (1990). Task Force report: The appropriate role of clinical child psychologists in the prescribing of psychoactive medication for children. *Journal of Clinical Child Psychology,* 19 (Suppl.), 1-38.

Bascue, L. O. & Zlotowski, M. (1981). Psychologists' attitudes about prescribing medications. *Psychological Reports.* 48, 645-646.

Boswell, D.L., Litwin, W.J. & Kraft, W.A. (1988, August). *Medical staff membership and clinical privileges: A national survey.* Paper presented at the annual meeting of the American Psychological Association, Atlanta, GA. (Cited in Barkley et al. [1990]).

Brown, R. T., Dingle, A. & Landau, S. (1994). Overview of Psychopharmacology in children and adolescents. *School Psychology Quarterly, 9*(1), 4-23.

Brown, R.T., Jaffe, S. L., Silverstein, J., & Magee, H. (1991). Methylphenidate and adolescents hospitalized with conduct disorder: Dose effects on classroom behavior, academic performance, and impulsivity. *Journal of Clinical Child Psychology, 20,* 282-292.

Brown, R. T., Dingle, A. D., & Dreelin, E. (In Press). Neuropsychological effects of stimulant medication on children's learning and behavior. In C. R. Reynolds & J. Fletcher (Eds.), *Handbook of clinical child neuropsychology.* New York: John Wiley & Sons.

Carlson, C. I., & Kubiszyn, T. (1994). Introduction: Mini-series on prescription privileges, psychopharmacology, and school psychology. *School Psychology Quarterly, 9*(1), 1-3.

Carlson, C. J., & Bunner, M. R. (1993). Effects of methylphenidate on the academic performance of

children with attention deficit hyperactivity disorder and learning disabilities. *School Psychology Review, 22* (2), 184-198.

Chatel, D., Lamberty, G., & Bieliauskas, L. (1993). Prescription privileges for psychologists: A Professional Affairs Committee Survey of Division 40 Members. *Clinical Neuropsychology, 7* (2), 190-196.

DeLeon, P.H. (1991). The Department of Defense Prescription Project-Doing Fine. *Register Report, 17* (1), 12-14.

DeLeon, P. H. (1992). Precription privileges: Developments at the federal level. *Register Report, 18* (6), 6, 7, 17, 27.

DeLeon, P. H., Fox, R. E., & Graham, S. R. (1991). Prescription privileges - Psychology's next frontier? *American Psychologist, 46* (4), 384-393.

DeMers, S. (1994). Legal and ethical issues in school psychologists participation in psychopharmacological interventions with children. *School Psychology Quarterly. 9*(1), 41-52.

Fischer, M. & Newby, R. F. (1991). Assessment of stimulant response in ADHD children using a refined multimethod clinical protocol. *Journal of Clinical Child Psychology. 20,* 232-244.

Folen, R.A. (1989). Act or wait? American Psychological Association, *APA Monitor,* p.2.

Fowler, R. (1990). Prescription privileges: The debate continues. *APA Monitor*, December.

Fox, R. (1991, Spring). APA leads the way on prescription privileges and the DOD project. *AAP Advance Plan*, 3.

Gadow, K. D. (1991). Clinical issues in child and adolescent psychopharmacology. *Journal of Consulting and Clinical Psychology*, 59, 842-852.

Gadow, K. D., Nolan, E. E., Paolicelli, L. M., & Sprafkin, J. (1991). A procedure for assessing the effects of methylphenidate on hyperactive children in public school settings. *Journal of Clinical Child Psychology,* 20, 268-276.

Gadow, K.D. (1992). Pediatric psychopharmacology: A review of recent research. *Journal of Child Psychology and Psychiatry, 33*, 153-195.

Handen, B. L. (1993). Pharmacotherapy in mental retardation and autism. *School Psychology Review,* 22 (2), 162-183.

Kubiszyn, T., Brown, R.T., DeMers, S., Landau, S., & Reynolds, C. (1992). *APA Division 16 Task Force report: Psychopharmacology in the schools.* Submitted to the Division 16 Executive Committee.

Kubiszyn, T. (1994). Pediatric psychopharmacology and prescription privileges: Implications and opportunities for school psychology. *School Psychology Quarterly*, 9(1), 26-40.

Litwin, W. J., & Boswell, D.L. (1989, August). *Limited prescription privileges for psychologists: Is there a consensus?* Paper presented at the Annual Meeting of the American Psychological Association, New Orleans.

McGough, J. J., Speier, P.L., & Cantwell, D. P. (1993). Obsessive-compulsive disorder in childhood and adolescence. *School Psychology Review, 22*(2), 243-251.

Pelham, W. E., Jr., (1993). Recent developments in pharmacological treatment for child and adolescent mental health disorders. *School Psychology Review, 22*(2), 158-161.

Piotrowski, C., & Lubin, B. (1989). Prescription privileges: A view from health psychologists. *The Clinical Psychologist,* 42, 83-84.

Pliszka, S. R. (1991). Antidepressants in the treatment of child and adolescent psychopathology. *Journal of Clinical Child Psychology,* 20, 313-320.

Safer, D. J., & Krager, J. M. (1988). A survey of medication treatment for hyperactive/inattentive students. *Journal of the American Medical Association, 260,* 2256-2258.

Smyer, M. A., Balster, R.L., Egli, D., Johnson, D.L., Kilbey, M. M., Leith, N.J., & Puente, A. E. (1992). *Report of the Ad Hoc Task Force on Psychopharmacology of the American Psychological Association.* Submitted to the APA Board of Directors.

Waterman, G. S., & Ryan, N. D. (1993). Pharmacological treatment of depression and anxiety in children and adolescents. *School Psychology Review*. 22 (2), 228-242.

Wiener, J.M., & Jaffe, S.L. (1985). Historical overview of child and adolescent psychopharmacology. In J.M. Wiener (Ed.), *Diagnosis and psychopharmacology of childhood and adolescent disorders*. New York: John Wiley. (Cited in Brown et al. [1994]).

Wilens, T. E., & Biederman, J. (1992). The stimulants. *Pediatric Psychopharmacology, 15*, 191-222.

Action Editor: Steven T. DeMers
Final Acceptance: June 15, 1995