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FUTURE TRENDS IN THE APPLICATION AND IMPACT OF PSYCHOPHARMACOLOGY WITHIN THE SCHOOL SETTING

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The number of children and adolescents using prescription medications is continually climbing. The preceding articles have offered discussions on a multitude of areas within this subject matter. This article will serve to summarize some of those points raised with particular emphasis on where we go from here in terms of training and professional practice. © 2009 Wiley Periodicals, Inc.

Over the past several decades the prevalence of prescription drug use in children and adolescents has increased significantly. Although there has been seen an influx in the use of most forms of medications in children and adolescents, the most prominent increases have been seen in the prescribing of psychotropic agents. In fact, the use of stimulant and nonstimulant medications for Attention-Deficit/Hyperactivity Disorder (ADHD), antipsychotics, antidepressants, and antiepileptics have all increased over the past 10 years. The basis for this increase is likely multifaceted. First, as greater knowledge is obtained about the physiological underpinnings of childhood and adolescent disorders, increased emphasis on a medical model approach may be seen. Second, as we have grown to appreciate the differential way in which various manifestations present in school-age populations in comparison to adults, we have become more comfortable in our diagnostic/classification decisions. This has led to increased numbers of children being identified with behavioral and/or emotional difficulties in which pharmacological interventions may be useful. As this increase has taken place, studies into the efficacy of a variety of agents for a number of disorders in children and adolescents have been conducted. As a result, research has demonstrated the utility of a number of these agents for the partial remediation of the signs and symptoms of many childhood disorders. In the preceding articles, advances in the pharmacological treatment of ADHD (see Vaughan, Roberts, & Needelman, 2009); bipolar disorder, schizophrenia, and other psychotic disorders (see Noggle & Dean, 2009a); depressive disorders (see Noggle & Dean, 2009b); sleep disturbances (see Hamilton, 2009); seizures and epilepsy (see Titus & Thio, 2009); and pervasive developmental disorders (see Floyd & McIntosh, 2009; Noggle & Dean, 2009a) have been discussed. In addition, issues pertaining to the changing role of psychological professionals within the schools have been offered.

Roles of Psychological Professionals in Pharmacological Intervention

Although the practice of prescribing medication is most commonly outside of the professional scope of psychological professionals who work with the school-age population, limited prescription privileges is an issue growing in discussion. For review of this subject matter see the article by Ball, Kratochwill, Johnston, and Fruehling (2009). Although a relatively small number of professionals hold such privileges, as discussed by Roberts, Floress, and Ellis (2009) in their article, pharmacological consultation may be the arena in which the greatest impact of the role of psychological professionals may be seen. Truly, although medical professionals ranging from primary care physicians to neurologists and psychiatrists prescribe the various medications discussed in the preceding articles, they are not usually afforded the time that psychological professionals are to engage in more in-depth observations and assessment, both in and outside of the school. As a result, psychological professionals who work with this population, especially those within the school (e.g., school

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psychologists), are in a unique position to be the essential consultants for medical professionals in monitoring responsiveness and impact, both positive and negative, of pharmacological interventions. In this capacity, the role of psychological professionals must be both direct and indirect.

Direct services involve the common tools and techniques of applied psychological practice. These include observation, interviewing, and assessment. To fully appreciate the impact that pharmacological agents are having, one must capture an adequate picture of where the child or adolescent is prior to its use. This goes beyond qualitative data in which the individual simply provides his or her perceived reaction to the medication as this reaction may be biased or lacking in disclosure. A standardized, quantitative approach is necessary. As noted in a number of the preceding articles, the vast majority of psychotropic agents used carry both positive and negative effects.

One role that psychological professionals working within this population may seek to take ownership of from this point on is leading the charge in the assessment of positive and negative outcomes after a prescription is made. Have the behavioral or emotional difficulties improved? Has cognition or academic performance been negatively impacted in any way? Are there residing behavioral and/or emotional deficits? These are just a few of the many questions that may be answered by continual, in-depth follow-up assessment provided by psychological professionals within or around the school setting. By comparing the changes seen to baseline data, psychological professionals will be able to provide a much more detailed picture of the outcomes secondary to pharmacological treatment than may be rendered by general clinical follow-up by medical personnel.

Although this information may be useful for medical personnel in terms of adjusting or altering the medicinal treatment approach, these data can also highlight those areas in which pharmacological treatment falls short. The literature has long shown that, for a number of childhood and adolescent behavioral or emotional disorders, pharmacological intervention alone is less effective than a combined treatment approach in which psychotherapeutic and/or behavioral techniques are used concurrently. In some cases, such as in the treatment of depression, the American Academy of Child and Adolescent Psychiatry (AACAP) has specifically recommended a combined utilization of psychosocial and pharmacologic interventions. This emphasizes the idea that, in many instances, medicine alone does not alleviate the problem. In those cases, psychological professionals within the schools are highly suited to address those deficits that pharmacology does not successfully remediate. Translation of data into directed interventions is a primary practice of psychological professionals. Whether or not a psychotropic agent is prescribed for a child or adolescent should not change that fact.

Indirect services are those involved within the consultative approach. As data are obtained and synthesized through the direct services discussed earlier in this article, that information may then be passed on to the medical personnel treating the child or adolescent so they may determine how to proceed medicinally. This serves to refine the medical approach, which, in turn, may serve to remediate manifestations physiologically that are presenting behaviorally. In turn, both the clinical practice of the medical professionals and the practice of the psychological professionals benefit from this consultative relationship, which will likely equate to increased positive outcomes for the child or adolescent. For more thorough coverage of issues pertaining to psychopharmacological consultation, see Roberts et al. (2009).

Conclusions

There are more children and adolescents using prescription medication than ever before. Although the practice of prescribing medication is not a privilege held by many psychological professionals, this is not to suggest that this is an arena in which these professionals need not educate themselves. Anderson and colleagues (2009) discussed the relevance of this issue quite clearly. As alluded to by my co-editor, Dr. Pierson, in his introductory remarks (Pierson, 2009), the organization

and content of this special issue were intended to address many of the essential topics within this subject matter, ranging from general practice and training issues to the discussion of specific issues and/or concepts.

In some of the preceding articles, advances in the treatment of specific presentations and the use of specific classes of drugs are discussed. In all cases, literature has highlighted both positive and negative outcomes that may occur as a result of particular medications being used which may directly or indirectly impact academic performance and/or daily functioning. Moving ahead for the future, if we as psychological professionals are to fully understand and address our clients/patients and their presentations, then we must also understand all forms of accepted treatment for those presentations, whether we control them fully or not. Medical personnel are not afforded the same amount of time that we are to engage in more in-depth assessments and follow-ups. By taking ownership of this role, not only may we as a field increase the frequency in which the medical field looks to us for assistance in care, but we will be having an even more positive impact on the clientele we serve. To better equip future professionals to take on this role, change must occur within our models of training. This change must include not only greater training in the use and efficacy of pharmacological treatment but also advanced training in the assessment of pharmacological outcome. As these clinical skills are refined in our current and future professionals, we may become invaluable to medical personnel and their practice; however, the benefit will be bidirectional. Although the prescription practices of medical personnel will likely benefit from more efficient outcome data, more effective pharmacological interventions will benefit psychotherapeutic and behavioral interventions. With both sides benefiting from this professional relationship, the needs of the children and adolescents with whom we work will be met at a level beyond that which could be reached singularly.

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