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Psychopharmacology research for individuals with mental retardation: methodological issues and suggestions

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Abstract

Psychotropic medications are frequently prescribed for behavior problems and/or psychopathology among individuals with mental retardation (MR). Unfortunately, the methodological integrity of scientific studies that support the use of medications among this population is often lacking. A recent review of the literature revealed that many of the studies that have assessed the efficacy of psychotropic medications for individuals with MR are methodologically flawed. Thus, we have detailed suggestions to improve the quality of future medication studies and avoid the methodological problems that prevent the scientific advancement of psychopharmacological research among individuals with MR.

Keywords: psychopharmacology research; mental retardation; behavioral assessment

Medical staffs are frequently involved in the treatment of those with mental retardation (MR). Consequently, a common approach to deal with severe behavior disorders in persons with MR is treatment with psychotropic medication (Aman, Singh, & White, 1987). Unfortunately, overuse of psychotropic medication among this population is common (Matson et al., 2000), and researchers have found that up to approximately 30 to 75% of individuals that reside within institutional settings are prescribed psychopharmacological agents (Aman &

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Singh, 1986, 1988; Martin & Agran, 1985). Despite the high prevalence of medication use, there is controversy surrounding the use of drugs to treat behavior problems. For example, researchers have demonstrated that many behavior problems in persons with MR are presumed to have an environmental component and can, therefore, be treated with behavioral interventions (Sprague & Horner, 1995). However, due to problems in implementing behavioral treatment (i.e., need for staff training, intervention is often costly and labor intensive) some agencies opt to use medication in place of alternative, less restrictive habilitation efforts, when a behavioral intervention may otherwise be useful. Thus, medication is frequently used to control aberrant behavior of persons with MR without a clear rationale and empirical support, leading to concern regarding the inappropriate uses of psychotropic medication (Aman & Singh, 1988; Wolfensberger, 1983).

Many researchers have investigated the treatment efficacy of psychotropic medication, and there is some evidence that antipsychotics may lessen self-injurious behaviors (Singh & Millichamp, 1986), stereotypes (Aman & Singh, 1986), physical aggression, overactivity and destructiveness (Locascio et al., 1991), and disruptive behavior (Aman, De-Smedt, Derivan, Lyons, & Findling, 2002) in some people with developmental disabilities. Other researchers have shown that as few as 15% of persons receiving antipsychotics show a positive response (Breuning & Poling, 1982) and about 20% of these people show adverse reactions to these drugs (Aman & Singh, 1988). Matson et al. (2000) conducted a 10-year review of the literature pertaining to psychopharmacology and mental retardation. The vast majority of studies conducted in the last 10 years in this area lacked methodological rigor, yet this did not prevent such studies from being published in peer-reviewed, scientific journals. In this case, poor research is worse than no research at all, since those without a formal understanding of experimental methodology may take the reported results of these studies at face value and base treatment decisions on potentially flawed conclusions. It is our belief that psychotropic treatment decisions be based in science and medications should be investigated through methodologically sound studies before being employed with the developmentally disabled population. Therefore, we believe it is important to highlight common problems in medication research, and provide suggestions that may aid in improving the methodology of future medication studies.

1. Behavioral assessment and intervention strategies should be considered prior to prescribing medication

1.1. Behavioral assessment

Individuals with MR often engage in disruptive behaviors that pose problems for both the individual and the caretaker. Most of these behaviors are thought to be under the client's control and serve a variety of functions that are well documented (i.e., to gain attention, escape from a task demand, get access to a tangible, or provide self-stimulation) (e.g., Carr, 1977; Iwata, Dorsey, Slifer, Bauman, &