

Psychotropic Medication and Behavioral Intervention Outcomes for Individuals in a Residential Treatment Facility

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INTRODUCTION

Psychotropic medications are frequently utilized in the treatment of challenging behavior in children diagnosed with autism (Weeden, Ehrhardt, & Poling, 2010). In combination with the potential for adverse side effects (Matson & Dempsey, 2008), a lack of consistency in evaluating medication effectiveness on behavioral progress (Matson & Neal, 2009) demonstrates a need for additional research on medication effects in combination with behavioral treatment.

The current review utilizes the number of psychotropic medications and percent reduction in target behaviors at discharge for children with developmental and intellectual disabilities residing in a facility for the treatment of severe problem behaviors.

This review examined the use of medication management and function-based behavioral interventions to achieve significant behavior reduction. For some participants, behavior reduction was successful with the addition of a function-based treatment and without the use of psychoactive medication.

METHOD

Participants and Setting

Participants included 33 individuals, with an average age of 16.7 years-old, who were admitted to a residential treatment facility for the assessment and treatment of severe problem behavior; all individuals were subsequently discharged upon meeting clinical readiness criteria, which included decreases in target behaviors and stabilized medications.

Dependent Variables and Data Analysis

Medications

All medications were prescribed, monitored, and categorized by a psychiatric nurse practitioner, a member of the interdisciplinary team (IDT). Psychiatric medications prescribed at admission and discharge for all 33 residents were analyzed, including the change in total medication from admission to discharge and the classifications of all prescribed medications.

Problem Behavior

Target problem behaviors were individually defined and included aggression, self-injury, and/or disruption.

- Frequency and/or duration of target behaviors was collected daily during all waking hours for each individual throughout their treatment.
- Baseline data for each target behaviors was established (minimally during the first 30 days of treatment), then each individual's behavioral progress at discharge was calculated by dividing the rate of behavior for the last 30 days of treatment by the rate of behavior at baseline and multiplying by 100 and subtracting by 100.

Procedures

- Program goals were individually determined, but included behavior reduction and a simplified medication package.
- Each individual's IDT included a psychiatric nurse practitioner, teacher, parent/guardian, and behavior analyst.
- As part of their behavioral treatment, a functional analysis was completed, typically for each target behavior. Function-based treatment evaluations were then initiated, which included sessions to generalize intervention to the residential environment.

Experimental Design

Outcome data were analyzed in a pre-post, archival data design. Each individual's data included medications prescribed at admission and discharge (i.e. number of medications and classification), function of target behaviors (tangible, escape, attention, or automatic) and percent reduction in target behaviors.

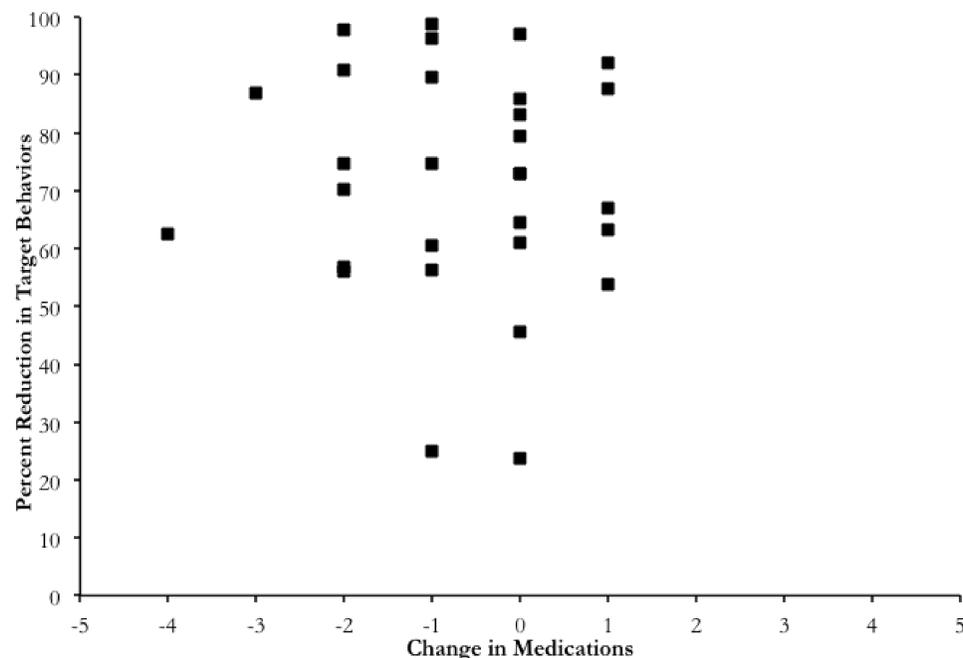


Figure 1 displays percent reduction in target behavior and change in medications from admission to discharge.

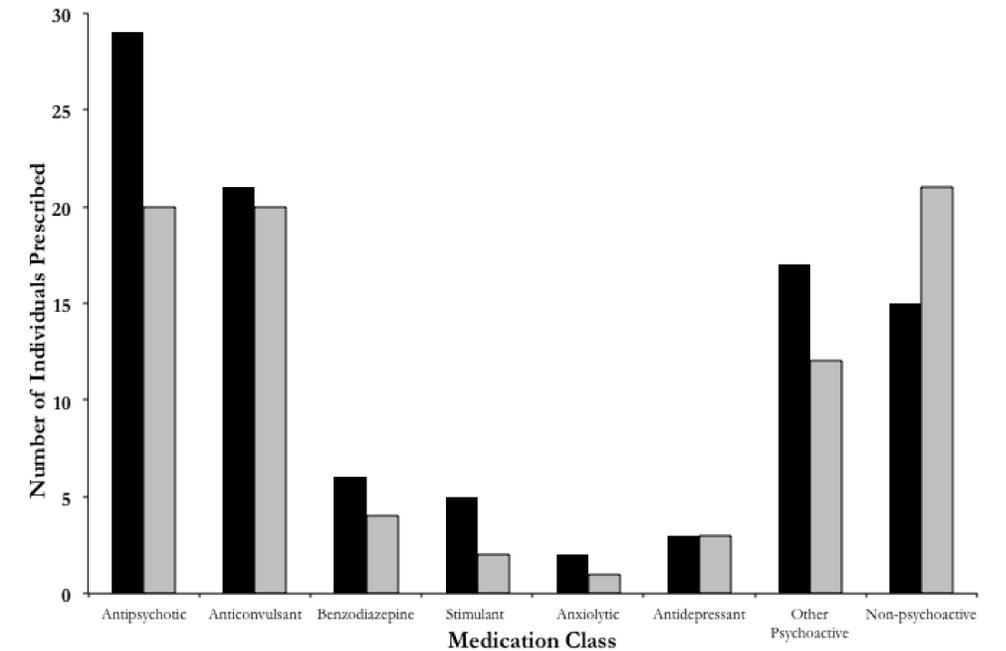


Figure 2 displays number of individuals prescribed psychoactive medications by class at admission (black bars) and discharge (grey bars).

RESULTS AND DISCUSSION

- Percent reductions in target behaviors were high regardless of whether medications were added or removed during admission, which suggests that behavior reduction was most greatly affected by function-based interventions.
- For most participants, total psychoactive medications were reduced from admission to discharge, and additionally were reduced within each medication class, with the greatest change seen in antipsychotics.
- When participants were grouped by identified function, participants with escape and tangible functions had the greatest reductions in medications, which may be indicative of the robustness of function-based treatments for escape and tangible maintained behaviors.
- Relying on the total number of medications as opposed to medication dosages may not accurately reflect changes in the overall medication level. Many individuals had reductions in medications that were not captured by analyzing only the total number of medications.
- For some individuals non-psychoactive medications were higher at discharge. Some of these medications may have led to behavior reduction through resolution of medical symptoms (e.g., bowel irregularity, hormone imbalance, sleep disruption, allergies, etc.). Future studies may investigate how identifying and treating underlying medical conditions may contribute to more effective reductions in severe problem behavior.

REFERENCES

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