Tips for Avoiding Polypharmacy in Children and Adolescents With Posttraumatic Stress Disorder in the Residential School Setting

Kerry-Ann Williams, MD

polypharmacy, or multiple concurrent prescriptions, describes a situation in which an individual is prescribed multiple psychiatric medications simultaneously. While the term does not have a universal definition,¹ it would apply to youth taking at least 3-4 prescribed psychiatric medications. Children and teens who are admitted to residential care facilities often arrive with multiple psychiatric medications due to a higher severity of symptoms and lack of response to previous treatments. Many have already tried outpatient treatment, individualized education programs, hospitalizations, partial hospitalizations, special school placements, or group homes. Psychiatrists working with these youth are often looking for alternative strategies to achieve the desired treatment goals.

While the practice is common, there is a relative lack of research² to support the use of polypharmacy. What research exists is challenged by the multiple different combinations of medications that can be used. Children and teens with posttraumatic stress disorder (PTSD) are particularly susceptible to polypharmacy treatment, in part because trauma can result in broad array of mental health challenges. A person with trauma could present as primarily depressed, with mood instability resembling bipolar disorder, psychosis, inattentiveness with executive functioning problems, aggression, with sleep problems, or often with a combination of these symptoms. When faced with children and teens who are suffering greatly, and while working with medications that are quite imperfect in their abilities to alleviate complex symptom presentations, how can a psychiatrist maximize the pharmacological contribution without overprescribing? The following are a few considerations for prescribers seeking to avoid excessive polypharmacy:

- Sometimes polypharmacy is unavoidable. Though our goal is to minimize the number of medications, some complex cases require multiple medications. In general, a patient who has very severe symptoms or symptoms from multiple domains may require more than one medication.³
- 2. Clearly explain to patients, families and/or teams what your expectations are for each new medication added and what specific symptoms the medication is targeting. This will guide your assessment of the medication's effectiveness while you engage in a discussion with the patient about their hopes for the medication. Using rating scales can often help with this function.
- 3. Replace rather than add.⁴ If it is unclear that a medication is helpful particularly if a regimen is inherited from other providers with little background information discuss replacing the first medication rather than simply adding a new one. This task often requires a period of cross-tapering where there is a temporary increase in polypharmacy.
- 4. Related to above, avoid getting stuck in the middle of a cross-taper. This occurs when, halfway through a medication cross-taper, the patient seems to show a notable improvement and further medication changes are halted. While such a practice is understandable due to a reluctance to "rock the boat", it's often preferable to see the cross-taper all

the way through to minimize side effects and potential drug interactions.

- 5. Be clear with families and collaterals when a diagnosis is known for having a poor or nonlinear response to medications. For example, attachment disorders present a special challenge⁵ because the child or adolescent may present with intense mood states, sometimes aggression, and the triggers are frequently interpersonal in nature and inconsistent from hour to hour. It may be difficult to measure the effectiveness of medication when there is so much variability and complexity, even when objective measures such as rating scales or structured observations are utilized.
- 6. If safely possible, allow for longer periods of time in between medication changes in order to get a better sense of the person's baseline and then assess for changes in their baseline presentation.
- 7. With the exception of cross-tapers, avoid making two medication changes at one time. It is easier to measure effectiveness and learn causes of side effects.
- 8. Discuss the concept of "polypharmacy" directly with parents and other caregivers. This keeps everyone informed of your goals and improves the informed consent discussion.
- 9. Review the diagnostic formulation. If it seems like the patient's medication list is starting to grow, consider doing a diagnostic reassessment. Contact collaterals again (school, therapists) and find out if the patient's presentation has changed in any way or if there is new information that can be incorporated. Carefully reassess the family system for new stressors or family mental health conditions.
- 10. Be cautious about nontraditional or experimental treatments. When it seems that patients are treatment-resistant, caregivers may inquire about newer medication brands or nutritional supple-

- ments. These should be carefully reviewed for their evidence base as well as safety and potential risks - and then discussed with the guardian. It is easy to forget that these agents contribute to polypharmacy and may have unknown drug interactions with other prescribed medications.
- 11. Maximize the use of evidence-based non-pharmacological therapies, which may complement the prescribed medication regimen and reduce reliance on medications as a solution to complex psychosocial presentations.

There are many barriers to reducing polypharmacy⁶ in residential clients. This article focuses on ways to avoid or minimize the formation of a polypharmacy regimen. The management of polypharmacy is often anxiety-provoking for both clinicians and families due to concern over making already symptomatic youth suffer even more, as many such patients may have already tried first- or second-line agents. These recommendations, however, can help to reduce that worry and build confidence in the process of reducing polypharmacy.

Take Home Summary

Children and teens with PTSD admitted to residential care facilities frequently receive polypharmacy treatment. This article reviews practical strategies for avoiding or minimizing the use of multiple medications.

References

- 1. Masnoon N, Shakib S, Kalisch-Ellett L, Caughey GE. What is polypharmacy? A systematic review of definitions. BMC Geriatr. 2017 Dec;17(1):1-10. https://doi.org/10.1186/ s12877-017-0621-2
- 2. Safer DJ, Zito JM, DosReis S. Concomitant psychotropic medication for youths. Am J Psychiatry. 2003 Mar 1;160(3):438-49. https://doi.org/10.1176/appi.ajp.160.3.438
- 3. Viola R, Csukonyi K, Doró P, Janka Z, Soós G. Reasons for polypharmacy among psychiatric patients. Pharm World Sci. 2004 Jun;26(3):143-7. https://doi.org/10.1023/B:-PHAR.0000026800.13888.b0

- 4. Duerden M, Avery T, Payne R. Polypharmacy and medicines optimisation. Making it safe and sound. London: The King's Fund. 2013.
- Zeanah CH, Chesher T, Boris NW, Walter HJ, Bukstein OG, Bellonci C, Benson RS, Bussing R, Chrisman A, Hamilton J, Hayek M. Practice parameter for the assessment and treatment of children and adolescents with reactive attachment disorder and disinhibited social
- engagement disorder. *J Am Acad Child Adolesc Psychiatry*. 2016 Nov 1;55(11):990-1003. https://doi.org/10.1016/j. jaac.2016.08.004
- Anderson K, Stowasser D, Freeman C, Scott I. Prescriber barriers and enablers to minimising potentially inappropriate medications in adults: a systematic review and thematic synthesis. *BMJ Open*. 2014 Dec 1;4(12):e006544. https://doi.org/10.1136/bmjopen-2014-006544

About the Author

Kerry-Ann Williams, MD, is the Medical Director of Children's Residential Programming at the Justice Resource Institute, Needham, Massachusetts. She is also a lecturer in psychiatry, part-time, at the Harvard Medical School Cambridge Health Alliance Child and Adolescent Psychiatry Program, Cambridge, Massachusetts.

The author has reported no funding for this work.

Disclosure: Dr. Williams has reported no biomedical financial interests or potential conflicts of interest.

Correspondence to Kerry-Ann Williams, MD; e-mail: kwilliams@jri.org

This article was edited by David C. Rettew, MD.