Medication Management for Young Adults and Not-So-Young Adults With ADHD: How Can We Help?

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Medication management skills are a critical factor in adherence to a pharmacological treatment regimen for people with ADHD and other conditions that impact learning. Young adults transitioning to independence often lack these skills, as do newly diagnosed adults. Standard community care typically does not allow enough contact time between provider and patient for adequate instruction and monitoring, and the providers may or may not have the clinical teaching skills needed by the target population. The scope of practice and training guidelines set forth in The Clinical Practice of Educational Therapy (Ficksman & Adelizzi, 2012) firmly establish that educational therapists can and should address this area of need. As case managers, we can establish collaborative relationships with the prescribing professionals. The frequency and duration of our treatment model is ideal for collecting information and verifying adherence, clarifying the science, teaching, and re-teaching. Medication adherence is a safety issue, directly through risk of overdose, legally through diversion, and indirectly through consequences of being unmedicated. The author provides an example of a session and discussion of the scope of instruction.

Executive function challenges are my practice specialty, and my caseload is filled with clients of all ages who have ADHD. Many of them take medication, sometimes several different types. Some of my clients have been well instructed by their doctor or nurse in how to manage medications, especially in practices that focus on ADHD. Some parents do a good job of helping their young adults to navigate this step in the transition to autonomy. Yet it's more common that my clients are walking around with the pill bottle in their pocket because they ran out the door and thought they would remember to take the pill when they got to work or class…and they forgot again...and the visual cue of "a few" pills left in the bottle is what triggers the refill request. High school students are usually fairly well monitored by their parents, but they need to be scaffolded into successful independence before they leave home, and that, I often find, is a perilously neglected lesson. So, I make it a point to investigate how a client handles their medicine as part of my "demystification" phase of treatment for adults newly diagnosed and young adults leaving home.

What Is the Issue?

Lots of people with ADHD are "non-adherent," in that they don't take their medicine the way it was prescribed. They often forget, misplace, run out, or don't want to take it for myriad reasons. These reasons are often based upon fears and misconceptions about neurostimulants, or someone else's fears and misconceptions about them. Non-adherence is a well-documented problem in the ADHD research. In a study reported in the *Journal of Adolescent Health*, the conclusion about college students is a clarion call to ETs:

> Participants with ADHD were not prepared to manage their chronic illness independently in the context of increased demands and newfound freedom, resulting in negative academic consequences. Social factors also play an influential role in ADHD self-management, particularly related to the isolation associated with sharing the medication and its side effects. *Intervention programs targeting medication self-management during the transition to independence are greatly needed for young adults with ADHD* [emphasis added] as high academic performance in college is critical for future success. (Schaefer et al., 2017, p. 706)

Findings From the MTA Study

If you operate as a professional in the realm of executive functions and ADHD, you are probably familiar with the Multimodal Treatment of Attention Deficit Hyperactivity Disorder (MTA) Study. The largest, longest, and most comprehensive study of ADHD treatment was sponsored by the National Institute of Mental Health (NIMH). It compared behavioral and medication treatment of ADHD in children, both alone and together, with routine community care. The big takeaways from the study are that neither treatment works as well alone as the combination of behavioral therapy and medication, and that the MTA medication treatments were more effective than routine community care. Why?

> There were substantial differences in quality and intensity between the study-provided medication treatments and those provided in the community care group. During the first month of treatment, the MTA doctors worked hard to find the best dose of medication for each child receiving the MTA medication treatment. After this period, the children saw their MTA doctor monthly.
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> During the treatment visits, the doctor spoke with the parent, met with the child, and worked to determine any concerns that the family might have regarding the medication or the child's ADHD. If the child was experiencing any difficulties, the MTA doctor could adjust the child's medication. In contrast, the community treatment doctors generally saw the children face-to-face only one or two times per year.
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> Careful monitoring also allowed for early detection and response to any side effects from the medication, which probably helped the children stay on the medication. In addition, the MTA doctors consulted with each child's teacher on a monthly basis and used this information to make any necessary adjustments in the child's treatment. In contrast, the community treatment doctors did not interact regularly with the children's teachers.

> Finally, the MTA doctors delivering the medication treatments generally prescribed higher doses of stimulant medications per day than the community treatment doctors. (National Institute of Mental Health [NIMH], 2009, paras. 13-16)

Who Plays This Role in the Community?

When I reviewed the literature to see how medication management is addressed in routine community care, I didn't find much. The American Occupational Therapy Association (AOTA) Scope of Practice Guidelines state that the practice of occupational therapy includes interventions that promote and enhance patients' abilities to safely manage their own health, including training in medication management (AOTA, 2021, p. 4).

Who else in the community was doing medication management and where were they teaching these skills? The answer to the first question comes from my experience and is that it usually isn't taught, or taught well...or I wouldn't have so many college students wondering who will write their prescriptions when they move away from home or adults coming to our sessions unmedicated because they forgot or ran out. The answer to the second question is in the *Occupational Outlook Handbook* published by the Federal Bureau of Labor Statistics: "Occupational therapists treat injured, ill, or disabled patients through the therapeutic use of everyday activities. They help these patients develop, recover, improve, as well as maintain the skills needed for daily living and working" (Bureau of Labor Statistics, 2022, tab 2 para. 1). More than half of OTs work in institutional settings and their work is mostly directed toward "patients."

In other words, people with ADHD aren't injured, ill, or disabled in any visible way by their condition; it's rarely diagnosed in a hospital, nursing home, or mental health facility; and it's often diagnosed in children whose parents are expected to manage their medications. I've never had a client who had been to an OT to learn medication management, though many of them consulted an OT in elementary school for sensory issues or handwriting support. OTs have a perfect skillset in my opinion, but they lean more towards cognitive and physical rehabilitation, and my clients are in MY office, not theirs. OTs are allies of educational therapists and have developed some great tools and curricula for medication management that can serve as good models for us if we don't refer out to them. A valid consideration in this decision is whether or not the client would benefit more if you did refer, or if the complications arising from adding another professional to the team, another expense, and more time out of the week would be detrimental.

How Do Doctors Typically Address Medication Adherence?

Typically, once doctors in the community, be they pediatricians or psychiatrists, have identified the correct medication and determined the right dose for a patient, they usually see their patients for 15-minute appointments every two to three months for medication management. Federal law only allows for a 30-day prescription of a controlled substance (such as Ritalin or Adderall) and some doctors provide up to three prescriptions at a visit. They rely on patient self-report (notoriously inaccurate for folks with ADHD) and/or parental report (also problematic for too many reasons to go into here), as well as their own brief observations in a one-on-one interaction that *doesn't involve task performance*. The prescribing physician is probably familiar with the ways executive function deficits can bedevil a task as seemingly straightforward as refilling a prescription but is NOT trained as we are for the careful teaching of strategies to people with EF challenges. People come to me to learn strategies and routines, but they have to go to a medical professional to obtain medication.

Who Should Teach the Strategy for Managing the Medication?

I found the rationale for educational therapists to take on this job in *The Clinical Practice of Educational Therapy* (2nd ed.): "The ET strives to create an adequate level of autonomy in her clients in order to move them from a dependent state to a more self-governing approach to daily tasks" (Ficksman & Adelizzi, 2018, p. 12).

Autonomy is one of the dozen pieces in the puzzle that Ficksman and Adelizzi use to represent the treatment alliance. When we are successful in moving the young adult client away from parental management of medication, they gain agency. When clients succeed in following their medication regimen, they incur fewer problems and frustrations. It's a potential boost to self-esteem and gives them greater ownership of their condition, which reduces what I think of as the "pathology load" of being "fixed" by someone. For the client to take the matter into their own hands in this arena is both practical and necessary. It can be one more success in the difficult march to maturity for our EF clients. With adults, good medication management is one of many activities of daily living (ADLs) that we need to address for life to work smoothly. Medication management is just another system to develop and test with your client as part of the transition to college or work. As case managers, this falls within our scope of practice.

Why Is Managing Medication so Hard?

Often people wonder why something that appears to be so straightforward needs to be explicitly taught to a young adult. The answer is embedded in the disorder, as illuminated by George McCloskey in *The Clinical Practice of Educational Therapy* (2nd ed.)

> In the case of some developmental syndromes such as ADHD, research findings dictate roughly a 30-percent time delay in the development of areas of the frontal cortex (Krain & Castellanos, 2006; Rubia et al., 2006; Shaw, Eckstrand, et al., 2007; Shaw, Lerch et al., 2006). Chronologically, these findings indicate that a 6-year-old child with ADHD is able to use specific self-regulation executive functions…about as well as the average 4-year-old. The same child at age 12 will demonstrate these capacities about as well as the average 8-year-old. At age 18, this child will demonstrate these capacities about as

> well as a 12-year-old. It's not difficult for clinicians to realize the effects that such delays in maturation are likely to have on a child's educational experiences, especially in the performance of tasks involving those nebulous qualities of self-responsibility and self-discipline. (McCloskey et al., 2018, pp.177-178)

The rude truth contained in McCloskey's words is that when you are teaching an 18-year-old college student, you are teaching an adult function to someone who is operating approximately as a 12-year-old in the executive sphere but is emotionally and intellectually mature enough to recognize that they "should" be capable of refilling their own prescriptions. It's a multistep process that has to be regimented in time and requires phone calls, emails, appointments, errands, follow-up, and coordination with others, all of which can present a challenge to an EF client. Some parents do an excellent job of handing off this task to their emergent adult, which is why you should consult with them before undertaking this. They may have questions for you, or they may not understand why your client would need instruction in this area. People's feelings on this subject can be very touchy, and you wouldn't want to cross some boundary they may not feel comfortable sharing with you, so proceed with caution. If the parent is on board, you and the student should research the laws governing medication, the resources available on campus or off-campus including the Internet, and why it should be locked up in college or stored where children can't access it in a family home or work environment. You may be reviewing or re-teaching something that parents or the prescribing physician have tried to get across, and that is a good thing.

This is a safety issue. But the reason why it goes unrecognized was clarified when I picked up a slim volume entitled *The Doctor-Patient Relationship in Pharmacotherapy: Improving Treatment Effectiveness* (Tasman et al., 2000). The book acknowledges the changes in the practice of psychiatry and the institution of the "15-minute 'medication check' as a primary treatment intervention" (p. vii). Tasman states: "It is well known that treatment outcomes are improved when the treatment interventions are made within the context of a trusting, caring, and ongoing relationship with a clinician. Adherence problems with treatment are a major cause of poor treatment outcome, ***especially when the treatment is primarily pharmacologic.***" (p. viii). This is a hint of where the problem lies.

In Chapter 4, "Enhancing Adherence in the Pharmacotherapy Treatment Relationship," contributed by James M. Ellison, I ran across this startling statistic:

> Among the barriers to treatment adherence identified by Warner and colleagues (1994) the lack of a supportive life routine was cited by patients as a key factor. Interestingly, 40% of the patients *but only 3% of the psychiatrists* [emphasis added] considered this to be among the top three contributors to non-adherence. (Tasman et al., 2000, p. 82)

Ellison goes on to recommend that clinicians should try to understand what could make it difficult for patients to follow a regular medication schedule, and in a later chart of interventions, he suggests addressing the patient's "chaotic life, lack of routine" (p. 93). Great advice, if you know what to do!

Why Should We ETs Do This?

Educational therapists have a powerful tool that isn't available to medical professionals: time. We work with clients every week, sometimes, several times a week, for extended periods that can frequently be measured in years. We constantly observe their behaviors analytically, through formal and informal assessment. We get to know them well enough to develop benchmarks for their behavior and a deep sense of how they're doing, week by week. With school-age clients and college students, we develop relationships with their parents, teachers, and schools. With adult clients, we may interact with a spouse or observe their workplace. We get feedback from our clients each week about how their lives are working, and we can track their successful task performance from week to week.

When a young adult leaves home, access to medication is crucial. Orientation to college or work and the integration of a wholesale revision of life is happening at this transition point. Clients who are managing multiple conditions with medication especially benefit from that help in this important time. Unfortunately, this is a moment when lots of young adults try to drop their meds because they want to be "normal." Why not? What could go wrong?

> Dr. Max Wiznitzer: One of the other areas in which medication should be considered is when the child is putting himself or herself at risk, and that risk would be at risk for physical injury, risk for social injury, in terms of peers rejecting them or not paying attention to them, or risk for academic failure. Of course, in the adult years, it would also be a risk for relationship failures, as well as difficulties with employment or issues where you're getting into trouble with the authority figures because of impulsive actions related to ADHD. (Children and Adults with Attention-Deficit/ Hyperactivity Disorder [CHADD], n.d., para. 14)

Anecdotally, my clients have lost wallets, made regrettable social and sexual decisions, overslept for their classes, had car and bike accidents, impulse shopped through their food budget, lost jobs for tardiness, panicked on exams, turned to alcohol or cannabis to self-medicate, and procrastinated their way to Cs, Ds, and Fs or a "pink slip" with this experiment in being "normal."

Taking too much of a neuostimulant or missing a dose, while usually not lethal, can have serious consequences. If you forget that you already took your pill and take another you could be uncomfortable and might act strangely in class or at work. In the case of some medications, mixing up the pills can be lethal. One client missed a day of Lamictal and had a seizure that night, narrowly missing serious brain injury from a fall on concrete.

What Might a Session With a Client Look Like?

Filling a weekly pill box sounds easy but is somewhat of a demanding task because it requires full attention to do it correctly, even though it is straightforward. Following a set procedure is important for accuracy. I demonstrate the process. The steps I teach are:

1. Gather all pill bottles and your pill box in a place where distraction is minimal. Put all the pill bottles on one side of the box.

2. Open all the compartments in the pillbox. If your client takes a single daily dose, there will be seven. If they take meds twice or three times a day, obtain the corresponding pillbox. Some are quite large, so get the most compact one that will fit all the pills.

3. Fill the box, one medication at a time. I count to seven, aloud, as I drop the pills in the seven compartments, for each medication.

4. When I finish one, I cap it and place it on the other side of the box until I have moved all medications to the other side.

5. If a medication needs to be refilled, the client needs to call in the refill as soon as the pillbox is complete. You can complete this transaction in session if it is appropriate. This gives a week's lead time to obtain a refill, which is usually adequate. If your client finds that their refill process takes longer, they need to adjust by calling it in when there are two weeks of pills left.

Controlled substance medications are tricky to time because they are only dispensed in a 30-day supply. Clarify with college students, well in advance of their first refill away from home, who will be prescribing the medication, how will it be transmitted to the pharmacy, which pharmacy will fill the prescription, how the student will get there (if it is off-campus), and what documentation might be needed if they are using a new doctor. Start the process sooner rather than later because unexpected things always seem to happen.

Some of the internet-based behavioral medicine programs that have appeared since the pandemic could make this much easier. There are a plethora of computer applications and management applications coming out now. Apple phones have a built-in medication management tool. Prescriptions can be filled in daily packets. Pharmacies send text reminders to refill prescriptions if you sign up. One application I am familiar with is MyTherapy.com, which rewards clients for a "streak" of successful days with pictures of baby raccoons. One of these automated systems could be worth setting up. You and your client should explore these and decide if you want to go the analog route of filling a weekly pillbox and using a calendar, or rely on an app or service, or build a combination system using mixed methods.

I recommend that clients have a pill caddy that attaches to a keychain (available at pharmacies for a few dollars) for a backup dose. Those days when they run out the door will still happen, or they may spend the night away from home unexpectedly. This dose will come in handy, and when they use it, it has to be replaced, usually at the time the pillbox is refilled. It's important that if this caddy contains a controlled substance that a pill bottle showing the prescribing info is nearby, for example, in the glove box of the car that goes with the keychain.

Finally, discuss "medication diversion." It's a requirement at some colleges that a student keep meds in a lockbox, and it is strongly suggested to protect the larger monthly supply of medication. College students probably shouldn't advertise that they take a stimulant because they become a target for requests to share their medication, or worse, sell it. The legal penalties for this sometimes (almost) innocent transaction can derail a career, the moral implications are problematic, and if anything bad happens to the recipient, it can be devastating…and it doesn't seem like such a big deal to many young people. The more important consideration is that your client runs out of medication early and needs it. I always practice a refusal script with them, just in case they are asked. Your voice can be very persuasive as a trusted helper.

Educational Therapy Is a Dynamic Profession

Educational therapy is an evidence-based practice, and we operate in a rapidly changing scientific landscape. We ETs tend to limit ourselves to the enterprise of helping our clients interface with educational institutions to acquire knowledge and academic skills. Medication management is a fundamental precursor to academic success for many, analogous to other pragmatic skills like organizing a school binder. It belongs in the repertoire of any ET who will work with clients who want to take medications and struggle with executive functions. The expansion of our understanding of executive functions and their role in our clients' lives leads naturally to an expansion of our services.

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