APPENDICES

Appendix A. Treatment Protocol Descriptions

Changing Academic Support in the Home for Adolescents with ADHD (CASH-AA)

CASH-AA (Hogue, Bobek, Evans, & Dendy, 2014) is a family-based clinical protocol intended for use with adolescents diagnosed with ADHD as either a primary or secondary disorder. It can be delivered in conjunction with family-based treatment or with individual-based treatment that can include caregivers in multiple sessions. It consists of three treatment modules, described briefly below, that can be initiated and completed at any point based on individualized treatment planning and case progress (Chorpita, Daleiden, & Weisz, 2005). Each CASH-AA module contains specific treatment aims and behavioral interventions that might be implemented in a single session or as a continuous intervention sequence across multiple sessions (typically 2-4 sessions, depending on how much time is devoted to working on the protocol in each session). It follows that the length of time needed to complete each module will vary greatly depending on the profile of the given family, practice habits of the provider team, and progress of the case.

Module 1 Motivation & Preparation: Home Academic Environment

Module 1 is intended to engage adolescents as active participants in therapeutic activities focused on improving school performance, link ADHD traits to school functioning, reframe the adolescent's school problems as family problems with family solutions, assess characteristics of the home environment that support or impede school success, and determine caregiver and adolescent readiness to make changes in the home academic setting.

Adolescent Engagement Interventions for School Problems. Adolescents with ADHD typically enter treatment having experienced a (long) history of school difficulties and disappointments of varying degrees. This can cause them to feel hopeless about achieving success, being recognized as talented or hard-working, or gaining personal satisfaction. For such youths a primary therapeutic task is school (re)moralization: Generate hope that school problems can and will improve. Clinicians approach this task via a two-step engagement process: (1) Use a given teen's stated problems and complaints to craft school-related treatment goals that are personally meaningful to the teen. Clinicians help teens perceive therapy as a context in which their unique concerns can be met, in addition to caregivers' treatment agenda. (2) Build and maintain teen commitment to working on personal goals by making those goals a collaborative venture equally shared between clinician and teen. This can be accomplished by

presenting the enhanced value of a "team" effort and fostering a joint vision of problem-solving strategies. Often clinicians will first meet alone with teens to develop a "we" bond for pursuing goals, then meet conjointly with caregivers to cement teen investment and negotiate a mutually agreeable treatment agenda.

ADHD Relabeling Interventions and Linkage of ADHD to School Problems. Family members often enter therapy with strong negative attributions about ADHD-related school deficits. Clinicians can facilitate more constructive family engagement in school problems by using the cognitive intervention relabeling: Altering negative attributions about a given behavior by emphasizing an unrecognized or mislabeled cause, thereby casting it in a more benign light. One kind of relabeling, "ADHD Acquittal", moves families away from a negative attribution—ascribing personal/moral blame to an ADHD-related behavior presumed to be under teen control—and toward a benign attribution—accepting a common ADHD characteristic that arises from a neurobiological condition. For example, "lazy" is recast as inattentive or distractible, "irresponsible" as having a poor sense of time, "disruptive" as impulsive, and so on. A second kind of relabeling, "ADHD Rewards", introduces rewarding or adaptive aspects of ADHD characteristics. For example, the "flip side" of distractibility is alertness, of immaturity is youthful exuberance, of impulsivity is spontaneity, and so forth. Relabeling also supports development of school-related treatment goals by linking ADHD characteristics directly to school problems. This linking process facilitates: (1) reduced negativity and blame surrounding the school issues, similar to the reattribution effect of ADHD Acquittal; and (2) increased motivation to participate in ADHD-targeted interventions to improve school performance, such as those in Module 2.

Reframing Interventions for ADHD-Related School Problems. Reframing interventions are used to change the focus of discussion about ADHD-related school deficits from "individual" adolescent problems to "family" problems that affect, and are affected by, the larger family environment. To accomplish this, clinicians engage families in describing (1) how school problems affect the emotional valence and everyday functioning of the home and (2) how families respond to (and perhaps exacerbate) these problems on a regular basis. When successful, reframing helps relieve teens from bearing the exclusive burden of the problems, lowers defensiveness and reduces the likelihood of hostile exchanges or escalating negativity in session, and prompts renewed investment from all members in changing how families support school achievement. This can lead to adoption of family-centered solutions to enhance the home academic environment, such as those contained in Module 2.

Reframing school deficits as family-wide problems with family-centered solutions also creates the opportunity to collaboratively assess the capacity of caregivers to participate in reconfiguring the home academic environment. This includes a realistic appraisal of the routine availability and commitment of caregivers to support and monitor their adolescents' academic activities, along with caregiver capacity to be involved in restructuring the environment as needed. Note that the two academic training interventions contained in Module 2—Homework Management Plan, Bookbag Organization—were originally designed as individual or group interventions delivered in school settings. Thus, whereas a family-based clinical approach confers certain advantages for delivering training interventions to clinical populations, extensive caregiver involvement is not required for such interventions to be effective. The academic training interventions incorporated in CASH-AA can be adjusted ad hoc for delivery to adolescents alone (or with minimal family involvement), assuming teens are sufficiently self-motivated to participate consistently. This adjustment may be needed when caregivers prove to be unhelpful monitors at home and/or unreliable participants in treatment, or when school attendance and performance are not a priority in the family.

Module 2 Behavior Change: School Attendance & Homework Plan

Module 2 is intended to implement family-centered interventions designed to boost school attendance (as needed) and homework quality. For adolescents with lateness or truancy issues, clinicians and families design a developmentally calibrated behavior contract featuring incentives for regular school attendance. For all cases, two training interventions adapted from CHP, Homework Management Plan and Bookbag Organization, are implemented to improve homework completion and organization habits over the course of several weeks.

Behavior Contracting for School Attendance. For those adolescents with school attendance problems, behavior contracting begins with augmenting motivation to attend school via adolescent engagement interventions (see Module 1). To construct the contract itself, clinicians follow three basic principles that enhance the success of behavior contracts in adolescent populations: (1) Teens should be physically present during all phases of construction, whether as active participants or silent/contrarian witnesses (allowing for pre-contract preparation meetings with caregivers or teens alone to augment the productivity of contract negotiations); (2) Contract language and contingencies should be simple (versus legalistic or multiply conditional) and couched in purely behavioral terms (e.g., "She will leave the house by 7:40 am") rather than terms that evoke cognitive/emotional states (e.g., "She will try harder to arrive at school on time"); (3) Contracts should contain a mix of positive incentives

(rewards/privileges) and negative incentives plus punishments (current privileges revoked, new restrictions incurred) that are selected for moderate impact and retain personal value to a given teen. When teens are active participants in the contracting, they can be invited to share what changes at home could make it easier or more manageable to attend school, for example, shifting morning chores to after-school hours. For teens subject to external consequences for absenteeism imposed by the school or juvenile justice system, these consequences can be balanced with voluntary rewards/privileges that do not compromise the salience of external strictures.

Homework Management Plan. This intervention is used to train adolescents to develop good study habits while decreasing family anxiety and conflict over homework completion. The foundation of the plan involves helping caregivers accept things they can no longer control (e.g., knowing the homework assignments each day, understanding all of the content of the academic subjects) and making a renewed effort to influence things they can (e.g., ensuring teens spend time on schoolwork each evening). Helping caregivers accept new limits on how much they can assist with schoolwork may be quite difficult for those who were able to boost their child in elementary school by being very involved in daily assignments. In contrast, for caregivers who have been minimally or uninvolved in homework routines, the initial stages of the plan focus on establishing the motivation and basic monitoring habits needed to support homework scheduling and completion. For all families, initial sessions involve meeting with caregivers to discuss this new approach, identifying the parameters of what is negotiable, and determining how homework sessions can best fit within the routine evening schedule.

The ultimate goal of the plan is to increase the amount of time teens spend on schoolwork each evening. Caregivers and teens negotiate a fixed amount of time and establish contingencies for adherence. A common framework for this plan is that teens are allowed full privileges until a certain point in the evening (e.g., dinner). After this point, they have no privileges until they spend the negotiated time on schoolwork. The privileges withheld should be as comprehensive as possible, including computer time, video games, cell phone use, leaving home, having friends at the house, and television (unless one of these is needed for completion of homework, e.g., computer). As soon as the full amount of time allotted for schoolwork is completed, all privileges are returned. If teens claim to have no schoolwork, then caregivers assign “busy work” such as writing a summary of a book chapter. Because middle and high school students always have assignments or test preparation, there is always a schoolwork related task that they could choose to complete. Although adolescents may complain about the assignment of busy work, if this procedure is made clear in the negotiated plan agreed to by parents

and adolescents, the conflict at the point of assignment is usually brief and leads to adolescents finding schoolwork to complete.

Parents are encouraged to loosely monitor their teens during homework time. In other words, parents should be confident that teens are doing something related to school (e.g., reading, completing assignments), but not be involved to the degree of checking accuracy or debating which work teens should complete. The behavior being targeted is time spent on schoolwork; decisions about which schoolwork to complete are left to the students themselves. This distinction is made to support the developing autonomy of the adolescent regarding self-reliance and making one's own decisions, while using parents to enforce the allocation of time to schoolwork. Clinicians should review the progress of the plan each week in session, with the goal of settling on a fixed routine that allows teens to complete all assigned homework on a daily basis. When useful, worksheets are available for tracking when homework should be completed, with what contingencies, and under what working arrangements. It is often useful to renegotiate the amount of time spent on schoolwork at each grading period based on the grades received. Of course a variety of problems can arise when implementing this plan; there are established procedures for responding to most of them (see Evans et al., 2011; Hogue et al., 2014) that can be referenced as helpful.

Bookbag Organization. This intervention helps adolescents take relatively small steps to create a more efficient and reliable organization of school materials. It takes place in the clinic office, follows a series of detailed checklists, and requires a few inexpensive school supplies. It is usually preferable to conduct these activities with teens alone to avoid negative remarks or intrusions from caregivers. The four intervention steps can be initiated during 10-20 minutes at the beginning or end of several consecutive sessions: (1) Discuss the current organizational system (if any) for school materials, how it is working/failing, and how it can be enhanced or revamped; (2) Investigate bookbag contents to view current organizational system, plan to install the new system, and consult checklist to identify needed supplies; (3) Organize a new master binder according to a detailed checklist that prescribes a system of binder divisions, subject folders, and common school supplies; and (4) Organize the bookbag itself according to a detailed checklist. Once installed, the new organizational system should be regularly monitored and tweaked as needed over the course of treatment.

Promotion of Home-Based Tutoring and/or Organization Skills Training. The academic training interventions described above may not be sufficient to boost academic achievement for some teens, especially those with significant executive functioning deficits and/or learning problems. Educational

supports can often be found in the schools (see Module 3). Additionally, families may seek home-based supports in the form of (a) tutoring services that provide didactic instruction and practice in specific areas of academic weakness or (b) additional training interventions that focus more intensely on time management and other study skills and are beyond the expertise and/or availability of most behavior therapists. Clinicians can assist families in determining the potential benefits and costs of appropriate services and evaluating their ongoing effectiveness.

Module 3 Collaboration: Therapist-Family-School Partnership

Module 3 is intended to establish and maintain a partnership among clinicians, families, and school personnel to serve the educational interests of teens, in line with evidence-based principles of family-school collaboration for youth with ADHD (Mautone, Lefler, & Power, 2011; Power et al., 2012). The first aim is to provide the family with education and advocacy training on special education rights and school-based services available to adolescents with ADHD. There are three kinds of services (see Harrison, Bunford, Evans, & Owens, 2013 for a review): (1) Modifications: changes to school practices that alter, lower, or reduce expectations to compensate for a disability (e.g., fewer/shorter homework assignments); (2) Accommodations: changes to school practices that hold a student to equivalent expectations but provide a differential boost to mediate the impact of a disability (e.g., extra time to take a test); (3) Interventions: changes made through a systematic process to improve knowledge, skills, behaviors, cognitions, or emotions (e.g., remedial instruction). Several professional resources have been compiled to guide clinicians in educating families about school policies for students with behavioral challenges (e.g., Individuals with Disabilities Education Improvement Act of 2004) and helping families secure appropriate services for youths diagnosed with ADHD (e.g., Dendy, 2000, 2006). Services are often available even for students with passing grades.

It is important for clinicians to help families understand the differences between interventions versus accommodations/modifications (A/Ms). First, to date no A/Ms for children with ADHD or other emotional and behavioral disorders have achieved strong empirical support (Harrison et al., 2013). Second, the goal of interventions is to improve the competencies and skills of students so they can meet age-appropriate expectations at school and in the community. In contrast, the goal of most A/Ms is to reduce the expectations or requirements of students so that they can succeed without the full set of skills or competencies. A/Ms are not designed to improve functioning on the core academic deficits that lead to school impairment. For example, having extended time on tests, or having teachers provide notes for students, is not likely to improve student ability to take tests or take notes in class. Thus, A/Ms

do not assist or prepare students to function academically in a manner consistent with peers (Evans, Owens, Mautone, DuPaul, & Power, 2014). For this reason, many recommend that A/Ms be provided for students with ADHD only when all available interventions (including medication) have failed.

The second aim is for clinicians to complete at least one school visit (when feasible) to solidify partnerships with appropriate school advocates and, if needed, construct a mutually determined plan for tailored educational services. Clinicians then assist caregivers in developing the skills required to work in conjunction with school staff to monitor and revise the educational plan over the course of the school experience. Clinicians can also provide case information to caregivers and schools throughout treatment (as consented) and troubleshoot caregiver advocacy efforts once they are underway.

Medication Integration Protocol (MIP)

MIP (Hogue & Bobek, 2013) is a family-based protocol for integrating pharmacological and behavioral interventions for adolescents diagnosed with ADHD as either a single or co-occurring disorder. Although intended for use with adolescents not currently taking ADHD medication—for whom medication decision-making is a primary concern—certain MIP interventions may be appropriate for medicated clients who would nonetheless benefit from more extensive ADHD psychoeducation and more efficient coordination of medication management and behavioral services.

MIP Tasks are considered modular (Chorpita, Daleiden, & Weisz, 2005) because they can be delivered in any order that is clinically indicated based on the status and progress of the case. The exception is Task 1, which should be prior to the initial therapy session. Tasks can also be staggered across several sessions and/or interspersed with interventions from other Tasks. It follows that the length of time needed to complete each Task will vary greatly depending on the profile of the given family, practice habits of the provider team, and progress of the case. Each MIP Task consists of several Therapeutic Goals and Completion Criteria (which are subject to clinician judgment) that might be achieved in a single session or as a continuous intervention sequence across multiple sessions. These are detailed below, followed by an expanded discussion of the key clinical interventions associated with each Task. Note that Task 5 is implemented only with families who decide to initiate medication.

Task 1: ADHD Assessment and Medication Consult

Therapeutic goals: Collect clinical data for the provider team on ADHD-related behavioral and school functioning to assist case planning. *Completion criteria*: Assess ADHD symptoms and impairments using

evidence-based methods, including a continuous performance task (if available); Make a formal ADHD diagnosis and determine client eligibility for medication; Screen for executive functioning (EF) and learning deficits and, when indicated, make an appropriate educational services referral to the teen's school or an independent tutoring service.

Standard or customized intake procedures can be used to determine whether the adolescent meets diagnostic criteria for ADHD, taking into account the assessment challenges associated with obtaining divergent perspectives (caregiver, youth, school personnel) on the presence and severity of symptoms, developmental changes in symptom expression, and incomplete or skewed knowledge about symptom expression in various settings. Brief, computerized continuous performance tasks that assess sustained attention using age-based norms are available for clinical use. MIP also requires that clinicians gather assessment data directly from school personnel, for three reasons: to make a confident and specific diagnosis, obtain reliable data on the history and current standing of school performance indicators (including enrollment in educational support services), and set the stage for marking significant improvements in school functioning for clients that elect to start medication.

Task 2: ADHD Psychoeducation and Client Acceptance

Therapeutic goals: Educate the family about the clinical and developmental implications of the teen's ADHD and EF assessment data; Define how the teen's specific ADHD-related characteristics impact family, school, and peer functioning. *Completion criteria*: Family understands that ADHD is a prevalent, brain-based, and lifelong (i.e., medical/neuropsychiatric) condition; Family has articulated and accepted the particular ADHD profile of the teen, including personality strengths as well as symptoms; Family has defined the teen's unique profile of EF deficits; Family understands that EF deficits are related to stress and performance challenges at home and school, and that relevant accommodations and supports may be needed to bring about improvement; Therapist and family have reviewed the client-specific profile of ADHD-related problems in family, school, and peer functioning; Family and therapist have linked significant ADHD-related problems to specific treatment goals.

Review of Clinical Profile of ADHD Symptoms and School Functioning. Standard or customized intake evaluations determine whether adolescents meet diagnostic criteria for ADHD, taking into account the assessment challenges associated with (a) divergent reporter perspectives on the presence and severity of symptoms, (b) developmental changes in symptom expression, and (c) incomplete or skewed knowledge about symptom expression in school and other settings. The protocol also requires clinicians to gather assessment data directly from school personnel in order to make a confident and specific

diagnosis, obtain reliable data on the history and current standing of school performance indicators (including enrollment in educational support services). Clinicians also learn about the educational experiences of caregivers and others who live in the home in order to contextualize teens' current school performance.

Presentation of Psychoeducation Materials: ADHD Basic Facts. Colorful slides are used as educational materials and therapeutic prompts for interactive discussions about several issues pertaining to ADHD among adolescents. Several slides present ADHD prevalence rates, behavioral symptoms, and common impacts on developmental functioning. Others deliver a strong anti-stigma message while encouraging teens to take ownership of ADHD-related characteristics. Slides also educate families about the neurobiology of ADHD (using accessible metaphors) in order to promote family acceptance, defuse moral attributions, and establish practical expectations for change. Potential benefits of medication are also described.

Presentation of Psychoeducation Materials: Executive Skills. Slides are also used to define components of executive functioning (EF), including working memory, behavioral inhibition, emotional control, planning and organization, and analytic skills. Another set of slides elaborates the relations among three main influences on academic achievement for teens with ADHD: intelligence, EF skills, and ADHD behavioral symptoms (especially inattention and impulsivity). Others present prevalence rates for learning disabilities and prompt discussion of any history of learning delays.

Completion of ADHD Style Index and Problem Scorecards: Family, School, Peer. Conjointly with caregivers and teens, clinicians administer and discuss a checklist of positive and negative personality and social characteristics associated with ADHD (*ADHD Style Index*) and three checklists of common ADHD-related impairments in the family, school, and peer domains (*Problem Scorecards*). These materials anchor generic psychoeducation about ADHD symptoms and EF deficits to client-specific characteristics and priorities identified by families. They also encourage further teen ownership and family acceptance of the ADHD condition, including identification of desirable social traits, while instilling a non-blaming explanatory narrative for difficulties experienced in everyday functioning. Finally, they help clinicians and families identify the most troublesome problems that then form the core of family-endorsed treatment goals.

Task 3: ADHD Symptoms and Family Relations

Therapeutic goals: Utilize family-based interventions to explore ADHD impact on family functioning, moderate negative attributions about ADHD behaviors, and reframe ADHD-related symptoms as

relational problems with both medication and behavioral solutions. *Completion criteria*: Family has adopted a non-blaming and cooperative attitude toward the teen's ADHD characteristics; Family understands the relational impact of ADHD on all family members; Family understands how ADHD is related to the primary reason(s) for referral and accepts that addressing ADHD directly will improve coping among all members; Therapist and family have brainstormed specific behavioral accommodations in the home to support improvement in high-priority family and school problems.

Family members often enter therapy with strong negative attributions about the teen's ADHD-related deficits. The therapist can facilitate more constructive family engagement in these areas by using *relabeling*: altering negative attributions about a given behavior by emphasizing an unrecognized or mislabeled cause, thereby casting it in a more benign light. One kind of relabeling, ADHD Acquittal, moves the family away from a disapproving attribution—ascribing personal/moral blame to an ADHD-related behavior presumed to be under the teen's control—and toward a neutral attribution—accepting a common ADHD characteristic that arises from a neurobiological condition. For example, "lazy" is recast as inattentive or distractible, "irresponsible" as poor sense of time, "disruptive" as impulsive, and so on. A second kind of relabeling, ADHD Rewards, introduces rewarding or adaptive aspects of ADHD characteristics: the "flip side" of distractibility is alertness, of immaturity is youthful exuberance, of impulsivity is creativity, and so on. Both kinds of relabeling interventions are primed by psychoeducation activities completed in Task 2.

Reframing interventions seek to change the focus of discussion about ADHD-related deficits from "individual" adolescent problems to "family" problems that affect, and are affected by, the larger family environment. To accomplish this, the therapist engages the family in describing (a) how behavioral problems affect the emotional valence and everyday functioning of the home and (b) how the family responds to (and perhaps exacerbates) these problems on a regular basis. When successful, reframing helps relieve the teen from bearing the exclusive burden of the problems, lowers defensiveness and reduces the likelihood of hostile exchanges or escalating negativity in session, and prompts renewed investment from all members in changing how the family supports the teen's developmental success.

Task 4: ADHD Medication and Family Decision-Making

Therapeutic goals: Review basic psychoeducation facts about ADHD medication and family attitudes about such; in collaboration with the prescribing provider, support family decision-making about medication initiation. *Completion criteria*: Therapist and family have reviewed all previous discussions with the prescriber on medication-related issues; Family understands the unique benefits of medication

in general and its potential specific benefits for the teen in home, school, and peer contexts; Therapist and family have discussed medication stigma, side effects, trial-and-error titration, and substance use issues; Family has accepted, refused, deferred, or been declared ineligible for a medication regimen. For medication accepters only: Therapist introduced a weekly medication log that tracks adherence, effects, and side effects.

To be successful in the decision-making process, it is essential to cultivate the teen's active involvement. Often this is not an easy task: Counseling for adolescents is invariably initiated by caregivers or other authorities, leaving many teenagers insufficiently informed, resentful, and/or reluctant about participating. Due to developmental limitations some teens may be unable to recognize the degree to which their ADHD-related behaviors are problematic. To promote adolescent investment in making a considered decision, therapists should explore whether and how ADHD medication can have personally meaningful benefit for the teen. First, the therapist should clearly establish that the teen's participation and viewpoints are as important as anyone's, which may be a (relatively) new mindset for some families. Second, the therapist should use examples drawn from the teen's own depiction of his/her daily life to formulate individualized benefits, in active collaboration with the teen. When indicated, the therapist might gently challenge the teen to adopt new perspectives or consider the upside of trying new approaches, in the service of engaging in thoughtful and context-specific decision-making. These interventions can also engender sturdier teen commitment to starting medication (if so decided) and adhering to the prescribed regimen on a daily basis.

For the vast majority of families, the most important characteristic influencing readiness to initiate ADHD medication during the teenage years is school achievement. Alarming school problems frequently emerge in late middle school and early high school as academic curricula require increasingly greater levels of organization, long-term planning, and academic self-direction. These new demands can be extremely difficult for students with ADHD to satisfy, even among those who maintained steady progress in earlier years due to intelligence, creativity, home and school academic supports, and motivation to achieve. New organizational demands can quickly outstrip the teen's ability to adjust and cope, resulting in a pile-up of disappointments and failures that inevitably undermine academic confidence and drive. For such students, medication offers the compelling possibility of immediate improvement in several facets of school functioning, making it the prime lever for moving family members toward medication acceptance.

Task 5: Medication Management and Integration Planning

Therapeutic goals: Formulate a case coordination framework for the prescribed medication regimen, with therapist and prescriber working in integrated fashion to support compliance and monitor effects. *Completion criteria*: Prescriber initiated a medication plan for the client, including ongoing medication management visits; Therapist and family established routine discussion of medication issues during behavioral treatment sessions, including compliance, benefits and side effects, and medication management visits; Prescriber, therapist, and family created a working arrangement for regular communication and integrated case planning about medication for the duration of pharmacological intervention.