AAFP national research network

Issue Brief: Adult ADHD Pilot Project

This issue brief provides a summary of the Adult Attention Deficit Hyperactivity Disorder tablet-enabled screening and quality of life survey pilot project conducted in seven primary care practices.

Executive Summary of Findings

- Family medicine physicians and staffs are very interested in Adult ADHD (AADHD) and are willing to use novel technology to support screening and assessing quality of life of patients who may have the condition.
- Physician survey respondents asked for targeted information to help them determine a diagnosis and offer appropriate treatments for AADHD.
- The practice-based activities conducted during the pilot study indicate that patients find the screening process acceptable (705 patients successfully screened) and that practice staff can accomplish the screening with little disturbance to routine practice workflow.
- Using conservative criteria, the estimated prevalence of undiagnosed AADHD is approximately six percent in the general population of individuals cared for in family medicine clinics in our study. This compares to a prevalence of approximately four percent reported in a limited number of general population published reports.

Rationale and Design

The Adult ADHD (AADHD) pilot project explored clinician perceptions, attitudes and readiness to screen, diagnose and treat adult patients with AADHD. The central aim of the project was to test the feasibility and acceptability to both patients and providers of using a tablet device pre-loaded to screen for AADHD and for those who screened positive, to administer an ADHD-specific quality of life survey. The rationale for these approaches was to gather maximal data in a short time frame that could inform whether there was readiness in the practice and whether a practical approach could be suited to various individual practice needs. The intent was to pilot test the approach so that a larger, more comprehensive study could be planned. To augment the AAFP NRN team and the participation of seven family medicine practices, three experts in the field of AADHD provided advice and assisted in the study's design and interpretation of data collected during the 18-month pilot study.

To address the level of need for clinical services for adults with ADHD, clinicians must be engaged and willing to screen, diagnosis and treat/refer patients with the condition. Studies that establish the population prevalence of ADHD do not immediately translate to therapeutic activities within primary care practice, even though this is where care is often provided. Characterizing the level of engagement and concern clinicians currently have with ADHD in their adult patients, and their willingness to consider this disorder in the context of their daily practices and care planning for patients is essential. We know that when providers recognize a condition's importance, and in particular, its effect on their patients' quality of life, their willingness to activate screening and diagnostic activities increase. Therefore, assessing clinicians' knowledge and perceptions are keys to developing practical screening and intervention protocols in primary care.

A well-designed mixed methods study provides both qualitative and quantitative data that inform the issue from different perspectives. This study used a quantitative, broadly cast survey approach coupled with a targeted, in-practice study of the use of screening tools to understand a variety of issues. Practice-level use of the screening instruments provided data on the providers' behaviors under conditions where patients were screened and found to need additional diagnostic testing and/or referral and perhaps needed medical care. This approach is markedly superior in accurately identifying barriers, as well as facilitators, to the delivery of care for specific conditions such as ADHD because it is based on the reality of day-to-day, practice-level decisions.

The aims of the pilot study included: identifying the acceptability of AADHD survey administration using a tablet device to collect data from adults age 18-44 years in the context of usual care; ensuring that screening results could be accessed readily by providers if they choose to do so; learning about options selected by clinicians, if any, to address screening results with their patients; and learning how to improve the design to enable the pilot to

inform a larger scale project. The Adult ADHD Self-Report Scale (ASRS-v.1) Symptom Checklist [1-3] and the Adult ADHD Quality of Life Questionnaire (AAQoL; used with permission)[4], both validated instruments were used in tandem to first screen and then identify any one (or more) of four domains of life quality that is impacted by AADHD.

Results– Physician Attitudes

An online survey administered to the American Academy of Family Physicians (AAFP) National Research Network (NRN) members as well as clinicians of the AAFP NRN's Center of Excellence practice-based research networks yielded 97 respondents (16% response rate). Relative to other surveys, this is a high level of response, indicating that AADHD is of interest to many member physicians. The topic was of interest to clinicians irrespective of their confidence in identifying and treating the condition. We asked respondents to share how confident they feel in identifying and treating AADHD. The results indicate that 12.5% report not being confident and always/usually refer patients for care, 59.4% are willing to screen and diagnose but report wanting more information and support and 28.1% feel confident that they can screen, diagnose and treat AADHD patients. Of those who currently screen or evaluate patients for AADHD, about half (51.3%) report using a screening/evaluation tool. Finally, respondents agreed that access to instruments and a process to conduct screening that meshed well with their workflows were essential elements for success (61.7%).

Results– Screening Data

Patient selection and survey administration varied by site. For some sites, staff scheduled eligible patients for longer visits so that the surveys could be administered before they were seen for care. In other cases, staff provided the tablet to the patient after they were roomed but before they saw the clinician. Regardless of administration protocol, very few patients declined to participate or failed to complete the surveys because of difficulty in using the tablet or because they found the survey to be unacceptable.

Table 1 displays a descriptive profile of the participants in the study. Thirty-five percent of the participants were male and there was equal participation of younger (18-31yr.) and older (32-44yr.) participants.

Gender/Age (yr.)	Total screened (#)	Screened Positive (#/%)
Female 18-31	235	67
Female 32-44	222	53
FEMALE subtotal	457	120 (26.3)
Male 18-31	107	36
Male 32-44	140	33
MALE subtotal	247	69 (27.9)
TOTAL	**704***	**189 (26.8)**

*One participant not included because gender not recorded

Table 1. Adult ADHD Self-Report Scale (ASRS-v.1) Symptom Checklist Results by Gender and Age

Table 2 displays the results for those patients that had a positive ASRS-v.1 screen and who went on to complete the AAQoL survey. The survey includes four self-assessed domains of life: life productivity; physiological health; life outlook; and relationships. Table 2 includes individuals that scored at least one standard deviation below the mean on one or more domains in the AAQoL survey. (The research team reviewed this threshold with the AADHD expert panel and they agreed that it was a reasonable approach and likely to result in few false positives.) The number of individuals who scored at least one standard deviation below the mean on two or more domains is used to estimate the prevalence of AADHD (n=42; prevalence =5.96%). The participating clinicians were quite concerned about these individuals because, while they admitted to suspecting behavioral health issues, they were surprised that their behavioral health significantly compromised their quality of life. The fact that 119 patients triggered the screener but did not score significantly below the mean likely indicates that they either are coping well with undiagnosed /untreated AADHD or that they have another behavioral health issue that caused a positive screen

that may indicate another condition. To determine which of these interpretations is accurate, more research that includes patient follow-up with more specific behavioral health assessment should be undertaken.

Number of Domains at Least One Standard Deviation Below the Mean	Frequency	Percent	Cumulative Percent
No Quality of Life Domain Triggered (@1SD≤X)	119	62.6	62.6
1 Domain Affected	29	15.3	77.9
2 Domains Affected	17	8.9	86.8
3 Domains Affected	13	6.8	93.7
4 Domains Affected	12	6.3	100.0
Total	190	100.0	

Table 2. AADHD Quality of Life (AAQoL) Results

Summary and Next Steps

Findings from this pilot study affirm that adult ADHD is probably under-diagnosed among 18-44 year old patients seen in family medicine clinics. Among those patients that triggered the six-question, validated AADHD screening instrument, about six percent meet the clinical criteria of having AADHD by having at least one quality of life domain significantly impaired. The findings were comparable, irrespective of practice characteristics (e.g., rural vs. urban differences and gender differences were undetected) among all seven practices. The tablet-administered method used to collect data for screening purposes did not disturb patients or practices; in fact, tablets are becoming ubiquitous, and participants were pleased to use them in the office setting.

Many family medicine physicians know that they need to learn more about caring for patients with behaviorally based health issues. Because of the shortage of available trained behaviorists, they are eager to improve their confidence by having straightforward education, patient screening and diagnostic tools that can be tailored to their individual needs coupled with sound, evidence-based therapeutic options to offer patients. Concerns about medications used to treat ADHD must to be included in guidance materials (as this was an important source of physicians' concern), along with descriptions of non-pharmacologic interventions that can be offered depending on clinical judgment and patient preferences.

Perhaps the most valuable insight gained during practice interviews with participating clinicians was that the screening activity stimulated novel conversations with their patients. Opening the dialog about behavioral health was important, and one critical area of need is to provide training and guidance in how to handle these conversations. Training could include strategies for reviewing screening results, confirmation and discussion of quality of life issues and the collection of family and childhood behavioral health history. Providers shared that they are particularly uncomfortable with addressing ambiguous mental and behavioral health issues without clear definitions and guidelines. We learned that they tend to refer patients to behaviorists for diagnosis due to this uncertainty coupled with their insufficient training in handling behavioral/mental health. Practices also support and are willing to offer patient materials that could include the possibility of the diagnosis, questions tailored to rule out alternative conditions and other educational information that enable them to understand available treatment options. The practical success of the pilot study and the estimated prevalence for the condition coupled with the high level of readiness among the survey respondents to screen and act on this health issue provides ample support for expanding the project from a pilot to a larger, more representative group of practices. Along with refining the approach used in the pilot, a larger scale study could provide support in the specific areas described above.

References Cited:

1. Kessler, R.C., et al., *Validity of the World Health Organization Adult ADHD Self-Report Scale (ASRS) Screener in a representative sample of health plan members.* Int J Methods Psychiatr Res, 2007. **16**(2): p. 52-65.
2. Kessler, R.C., et al., *The World Health Organization Adult ADHD Self-Report Scale (ASRS): a short screening scale for use in the general population.* Psychol Med, 2005. **35**(2): p. 245-56.
3. http://www.hcp.med.harvard.edu/ncs/ftpdir/adhd/6Q_ASRS_English.pdf. [cited 2014 May, 27].
4. Brod, M., et al., *Validation of the adult attention-deficit/hyperactivity disorder quality-of-life Scale (AAQoL): a disease-specific quality-of-life measure.* Qual Life Res, 2006. **15**(1): p. 117-29.