Diagnosis and Treatment of Obsessive-Compulsive Disorder in Children and Adolescents

Draft Key Questions (KQs)

KQ1: What is the comparative diagnostic accuracy of approaches that can be used to diagnose obsessive compulsive disorder (OCD) in children and adolescents?

> KQ1a. Once a diagnosis of OCD has been established, is there evidence of usefulness of assessment of PANS/PANDAS when symptoms occur pre-pubertally and abruptly?

KQ2: What are the comparative effectiveness and harms of psychological, pharmacological, and neuromodulation interventions, including in-person and telehealth strategies, when used alone or in combination for treatment of OCD in children and adolescents?

KQ3: What are the comparative effectiveness and harms of complementary/integrative treatments, such as naturopathic therapies (i.e., N-acetylcysteine, GABA and SAM-E naturopathic supplements), and mind-body practices (i.e. mindfulness meditation and yoga) for treatment of OCD in children and adolescents?

KQ4: What are the comparative effectiveness and harms of the different care settings and care intensities, such as residential care, partial hospitalization, intensive outpatient, and outpatient treatment used when treating OCD in children and youth?

For all key questions, how do findings vary by disease severity and/or duration, comorbidities, and patient characteristics (i.e. gender, race, socioeconomic status, etc.)?

Background

The Patient-Centered Outcomes Research Institute (PCORI) is partnering with the Agency for Healthcare Research and Quality (AHRQ) to develop a systematic evidence review on Diagnosis and Treatment of Obsessive-Compulsive Disorder in Children and Adolescents. The American Academy of Child and Adolescent Psychiatry (AACAP) plans to use the findings of this systematic evidence review to develop related clinical guidelines.

Obsessive-Compulsive Disorder (OCD) is typically a chronically debilitating disorder characterized by recurrent intense obsessions and/or compulsions that cause severe distress and interfere with day-to-day functioning.1 Obsessions are repetitive and persistent thoughts, impulses, or images that are unwanted and cause marked anxiety or distress. Frequently, they are unrealistic or irrational. A person suffering from OCD may attempt to ignore, avoid, or suppress obsessions, or may try to neutralize them with another thought or action (e.g., performing a compulsion).1,2 Compulsions are repetitive behaviors, rituals (like hand washing, keeping things in order, checking something over and over) or mental acts (like counting or

repeating words silently) that may be performed in response to an obsession or according to rules that may be applied rigidly.1,2 In OCD, the obsessions and/or compulsions cause significant anxiety or distress, and may interfere with the child's normal routine, academic functioning, social activities, and relationships.1,3

OCD affects more than three million people in the United States and is seen in as many as one-three percent of children and adolescents.1,2 Research suggests that approximately fifty percent of all cases have their onset in childhood and adolescence, with more than half of pediatric patients found to have at least one comorbid psychiatric disorder.1-4 Although OCD generally presents similarly in children and adults, pediatric OCD appears to be more common in males than in females, in contrast to adulthood, where the male-female ratio is approximately 1:1. In addition, boys typically have an earlier age of onset (7 to 9 years) than girls (11 to 13 years).4-6

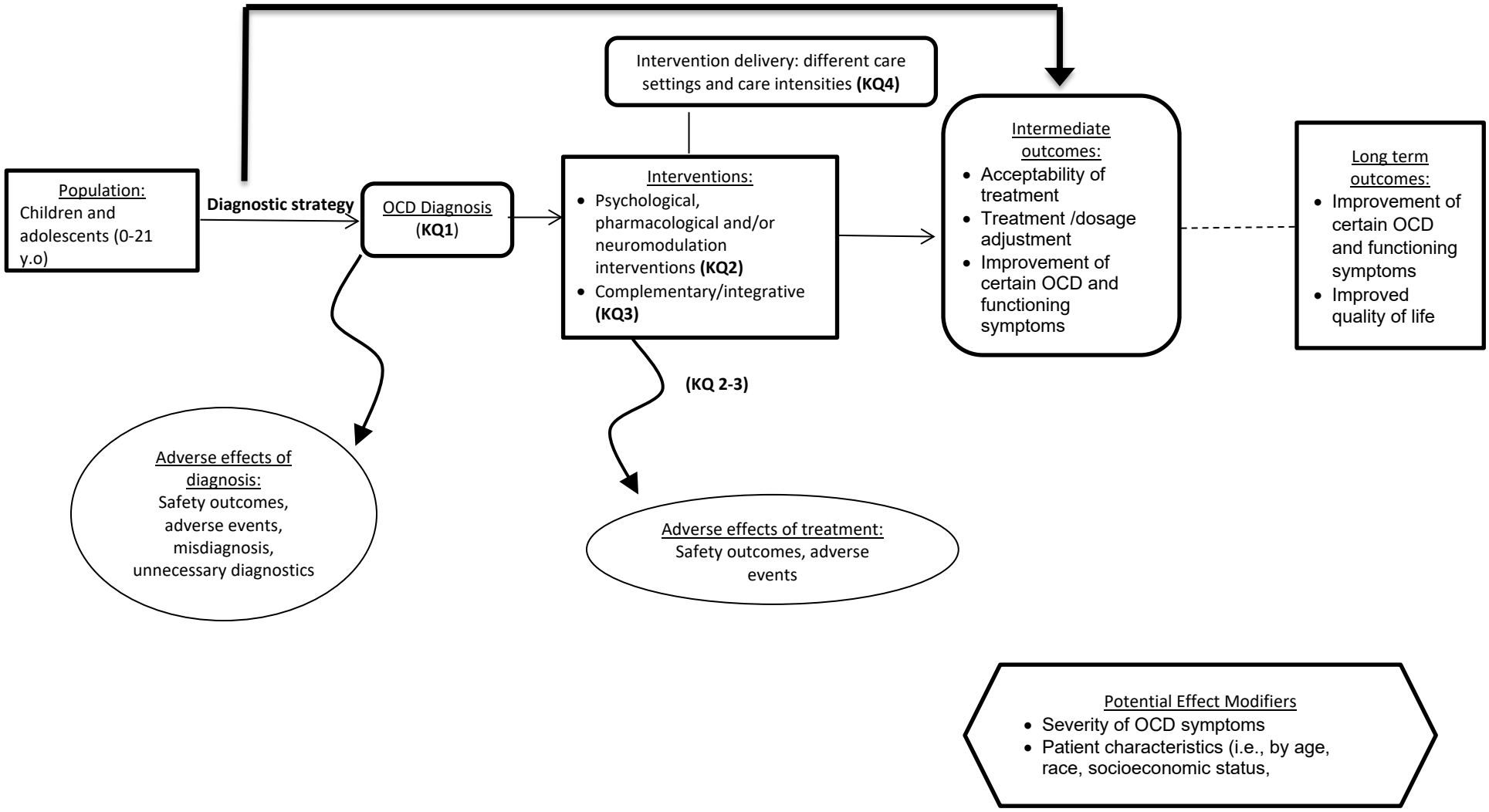
Repetitive, ritualistic behaviors can be a part of normal child development and, therefore, diagnosing OCD can be difficult in children.1 Additionally, children with OCD may display compulsions and rituals (e.g. blinking and breathing rituals) different than those typical in adults (e.g., washing or checking).1-3 Further, while compulsions are usually observable, obsessions are frequently hidden or poorly articulated, especially in younger children, who may be unable to describe obsessive thoughts or the reasons for their compulsive actions. Most children exhibit multiple obsessions and compulsions.1-3,7,8

In the absence of adequate treatment, OCD is generally a serious and disabling disorder with a chronic but fluctuating trajectory. Symptoms may repeatedly improve but then worsen again.1-3 Recommended treatment for OCD in children and adolescents includes pharmacological and nonpharmacological therapy options. 1-3,7,8 Treatment options include cognitive behavioral therapy (CBT), multimodal treatment, .1,3 and pharmacological treatment such as selective serotonin reuptake inhibitors (SSRIs).1,10 Medication augmentation strategies may also be considered most utilizing atypical neuroleptics. 1-4,10

Current guidance from U.S. societies on the diagnosis and treatment of obsessive-compulsive disorder in children and adolescents is dated. The most recent U.S.-based clinical guidance comes from a Practice Parameter published in 2012 by the American Academy of Child and Adolescent Psychiatry (AACAP). 1 A significant amount of research has accumulated since this publication. Further, in addition to an updated comprehensive assessment of pharmacological and non-pharmacological treatments for OCD in children and adolescents, there is also a need to review the research on complementary and integrative treatments, including biological/biomedical and naturopathic therapies, and alternative care settings and intensities, such as residential care, partial hospitalization and intensive outpatient interventions. Consequently, a review that synthesizes the totality of the current evidence available on the benefits and harms of diagnosis and treatment of OCD in children and adolescents is needed to support the development of a clinical practice guideline and to inform decision-making for healthcare professionals, clinicians, patients, and caregivers.

Draft Analytic Framework

Draft Analytic Framework for the diagnosis and treatment of obsessive-compulsive disorder in children and adolescents



PICOTS

Table 1. PICOTS for KQ1: What is the comparative diagnostic accuracy of approaches that can be used to diagnose obsessive compulsive disorder (OCD) in children and adolescents?
KQ1a. Once a diagnosis of OCD has been established, is there evidence of usefulness of assessment of PANS/PANDAS when symptoms occur pre-pubertally and abruptly?

KQ1	Inclusion	Exclusion
Population	Children and adolescents (0-21 years) with suspected OCD	Adults (21+), children diagnosed with OCD.
Intervention	Validated assessment procedures, including those administered in-person and via telehealth, to diagnose OCD in children and adolescents, such as the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS) and the Obsessive-Compulsive Inventory-Revised (OCI-R).	Assessment procedures that have not been established as psychometrically valid and reliable for OCD in this age group
Comparator	Usual care	
Outcomes	Accuracy of diagnosis, risk of misdiagnosis, and possible adverse effects associated with assessment	NA
Timing	Any	NA
Setting	Administered by healthcare provider in any applicable setting.	NA
Study design	RCTs, non-randomized, observational, non-controlled study designs	Cross-sectional, prevalence, qualitative, case reports, opinion/letter

Table 2. PICOTS for KQ2: What are the comparative effectiveness and harms of psychological, pharmacological and neuromodulation interventions, including in-person and telehealth strategies, when used alone or in combination for treatment of OCD in children and adolescents?

KQ2	Inclusion	Exclusion
Population	Children and adolescents (0-21 years) diagnosed with OCD	• Adults (21+); children and adolescents without a diagnosis of OCD • Children and adolescents diagnosed with body dysmorphic disorder and/or other OCD-spectrum conditions. • Children and adolescents diagnosed with PANS / PANDAS
Intervention	***Psychological Interventions****:* Psychological interventions for OCD, including in-person and telehealth, to include cognitive behavioral therapy (CBT) including exposure and response prevention or psychodynamic therapy; targeted family intervention, and other emerging psychological interventions alone or in combination with pharmacologic and/or other interventions. ***Pharmacological interventions****:* Pharmacological interventions, including in-person and telehealth, to include: selective serotonin reuptake inhibitors (SSRIs) including sertraline, fluvoxamine, fluoxetine, paroxetine,	

KQ2	Inclusion	Exclusion
	citalopram; the tricyclic antidepressant (TCA) clomipramine; serotonin and norepinephrine reuptake inhibitors (SNRIs); medication augmentation strategies, such as combination of SSRIs, adding clomipramine to and SSRI, SSRI augmentation with venlafaxine, duloxetine, clonazepam or neuroleptics; other pharmacologic interventions alone or in combination with psychological and/or other interventions. ***Neuromodulation interventions***: transcranial magnetic stimulation (TMS), transcranial direct current stimulation (tDCS), transcranial alternating current stimulation (tACS), deep brain stimulation (DBS)	
Comparator	Usual care, another active intervention, waitlist control, sham or placebo.	
Outcomes	OCD symptoms and severity, family functioning, school performance/attendance, interpersonal/social function and competence/need for special accommodations, quality of life, acceptability of treatment, adverse effects of treatment	
Timing	Any	
Setting	Administered by healthcare provider in any applicable setting.	
Study design	RCTs Non-randomized, observational, non-controlled study designs (for harms only)	Cross-sectional, prevalence, qualitative, case reports, opinion/letter

Table 3. PICOTS for KQ3: What are the comparative effectiveness and harms of complementary/integrative treatments, such as naturopathic therapies (i.e. N-acetylcysteine, GABA and SAM-E naturopathic supplements), and mind-body practices (i.e. mindfulness meditation and yoga) for treatment of OCD in children and adolescents?

KQ3	Inclusion	Exclusion
Population	Children and young adults (0-21 years) diagnosed with OCD	Adults (21+); children and adolescents without a diagnosis of OCD
Intervention	***Complementary/integrative therapies:*** Naturopathic interventions such as N-acetylcysteine, GABA and SAM-E naturopathic supplements, and mind-body practices such as mindfulness meditation and yoga.	
Comparator	Usual care, another active intervention, waitlist control, sham or placebo.	
Outcomes	OCD symptoms and severity, family functioning, school performance/attendance, interpersonal/social function and competence/need for special accommodations, quality of life, acceptability of treatment, adverse effects of treatment	
Timing	Any	

KQ3	Inclusion	Exclusion
Setting	Administered by healthcare provider in any applicable setting.	
Study design	RCTs, non-randomized, observational, non-controlled study designs	

Table 4. PICOTS for KQ4: What are the comparative effectiveness and harms of the different care settings and care intensities, such as residential care, partial hospitalization, intensive outpatient, and outpatient treatment used when treating OCD in children and youth?

KQ4	Inclusion	Exclusion
Population	Children and young adults (0-21 years) diagnosed with OCD	• Adults (21+); children and adolescents without a diagnosis of OCD • Children and adolescents diagnosed with body dysmorphic disorder and/or other OCD-spectrum conditions. • Children and adolescents diagnosed with PANS / PANDAS
Intervention	***Alternative care settings/Intensities:*** Care settings and care intensities: residential care, day-hospitalization/partial hospitalization, other care settings.	
Comparator	Usual care, another active intervention, waitlist control, sham or placebo.	
Outcomes	OCD symptoms and severity, family functioning, school performance/attendance, interpersonal/social function and competence/need for special accommodations, quality of life, acceptability of treatment, adverse effects of treatment	
Timing	Any	
Setting	Administered by healthcare provider in any applicable setting.	
Study design	RCTs, non-randomized, observational, non-controlled study designs	Cross-sectional, prevalence, qualitative, case reports, opinion/letter

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