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PEDIATRIC PSYCHIATRIC HISTORY AND MENTAL STATUS EXAM

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Introduction

Thank you for tuning into the PedsCases channel. My name is Annabelle Wong, a medical student at the University of Alberta. This podcast was developed under the supervision of Dr. Heidi Wilkes, a consulting psychiatrist at the Stollery Children's Hospital.

Taking a pediatric psychiatric history and doing a mental status examination may sound daunting for learners, including myself. In this podcast, we will walk through an approach that you can apply in different clinical settings such as a primary care clinic, community pediatric office or emergency department.

Case Overview

Let us begin with a case. Imagine today is the first day of your family medicine rotation, and you are asked to see Becky, a 14-year-old female who reports feeling a lack of energy and decreased appetite over the past two months. When you review her chart, you notice Becky came in with similar complaints four weeks ago. At that time, her mother was concerned about anemia or a thyroid issue and requested that her daughter get some blood tests. The physician thought that was reasonable and ordered the appropriate tests which yielded normal results.

When you walk into the room, both Becky and her mother, Mrs. Smith, are playing with their phones silently. After a brief introduction, Mrs. Smith asks about the test results. You explain the result is normal, and Becky does not have anemia or a thyroid issue. Mrs. Smith says she is very worried because Becky has lost some weight and missed a few days of school since the last visit. You notice Becky has remained quiet and avoided eye contact. You suspect your patient might have mood disorder. What should you do next?

Learning Objectives

After listening to this podcast, learners should be able to:

1. Recognize the prevalence and emergence of most common pediatric psychiatric disorders by age.
2. Identify individuals with risk factors that should lead to formal mental health screening.
3. Outline a structured approach for pediatric psychiatric history taking, including the HEADSS framework, COLDER mnemonic and motivational interviewing strategy.
4. Describe key components of the mental status examination and how it can be useful along with general history taking to clarify the diagnosis.

Prevalence and Emergence of Pediatric Psychiatric Disorders

You may wonder how often you will see patients like Becky in the future. Regardless of the scope of your practice, it is common to interact with children and teenagers. Let us look at some statistics:(1–3)

- Nationally, about 20% of Canadian youth have a mental disorder in a given year, and this proportion has remained stable over time.
- However, hospital use for mental disorders by children and youth has changed over the past decade. Between 2008–2009 and 2018–2019, there was a 61% increase in visits to the emergency department (ED) and a 60% increase in hospitalizations. In contrast, there was a 26% decrease in hospitalizations for other conditions during the same period.
- Females aged 15 to 17 have the highest rate of ED visits and hospitalizations for mental health disorders among children and youth.
- One in 11 youth were dispensed a mood/anxiety or antipsychotic medication in 2018–2019.

If you live in Alberta, the prevalence of pediatric mental disorders increased from 12.6 per 100 population in 2008 to 15.0 per 100 population in 2015.(4) Over the same period, dispensations for antidepressants increased from 7.0% to 11.2% while stimulants to treat attention deficit hyperactivity disorder (commonly known as ADHD), from 11.9% to 15.9%.(4)

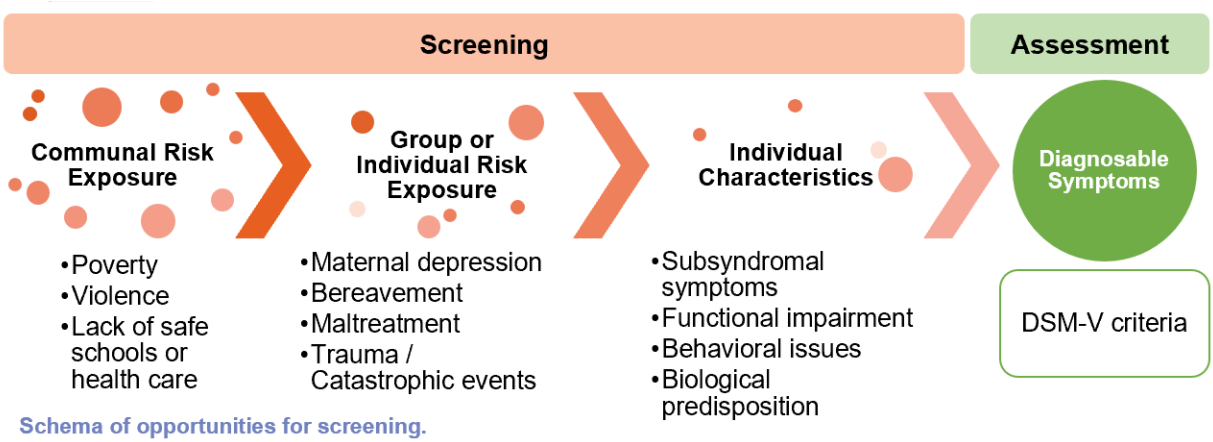
Pediatric psychiatric assessment should include multiple informants such as the patient, parents and teachers, and the differential diagnosis is extensive. It is important to keep in mind the age of the child, and the likelihood of certain disorders occurring at that age. You may appreciate that separation anxiety, ADHD and tic disorders emerge at a younger age while depression and substance use disorders commonly emerge during adolescence.(5,6) Remember that true psychotic disorders are rare before mid- to late adolescence; if the patient has symptoms of psychosis, a full medical work-up is warranted and consideration of substance use.

Risk Factors and Mental Health Screening

Now think about our 14-year-old Becky, is she an adolescent with risk factors that prompt further mental health screening?

The National Research Council (US) and Institute of Medicine (US) Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults developed a scheme of opportunities for screening and prevention, which outlined the common risk factors.(7) During the screening process, clinicians should pay attention to:

- Communal risk exposure, such as poverty, violence, lack of safe school environment, or lack of access to health care.
- Group or individual risk exposure, such as maternal depression, bereavement, trauma, or catastrophic events.
- Individual characteristics include but are not limited to subsyndromal symptoms, functional impairment, behavioral issues, or biological predisposition.



Schema of opportunities for screening.
Adapted from Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities, by O'Connell et al., 2009, https://www.ncbi.nlm.nih.gov/books/NBK32784/.

Screening tools are particularly helpful for family physicians and pediatricians in clinical practice. The tools identify patients who are at risk of having psychiatric disorder(s), or more broadly, a dimensionally measured psychopathology that warrant further assessment; the tools also help assess which patients are most likely to benefit from referral to specialty services.(8–10)

The Canadian Pediatric Society website (www.cps.ca) has a list of validated screening tools and rating scales for different symptoms and suspected conditions. Each instrument was rated on a series of criteria including:

- age range to which it applies,
- time required to complete,
- who completes the questionnaire,
- accuracy,
- availability in other languages,

- cost, and
- whether the tool allows co-morbidities to be identified.

The tool(s) you choose will depend on your clinical setting, practice support and the nature of your patients.

- In a busy primary care clinic, you may ask your patients and their parents to fill out the rating scales at home or wherever they feel more comfortable, and then bring back the completed forms at the next visit for a more in-depth discussion.
- In an emergency department, it is common to see pediatric patients with psychiatric symptoms; the four most common presentations are behavioral concerns, suicidality, anxiety, and psychosis.(11,12) It may not be possible for patients and parents to fill out the screening tools on the spot. These are often complex cases requiring a structured and methodical approach with special attention to ensure the safety of the patient and all those involved.

Psychiatric History Taking

History and mental status examination are the most important diagnostic tools that a psychiatrist, family doctor, pediatrician or emergency physician can obtain to make an accurate diagnosis.(13)

Here are some **practical tips**:

- Assessment begins the moment the patient enters the room. You must pay close attention to the patient's presentation, including appearance, social interaction with office staff, and whether the patient is accompanied by someone.
- Set clear expectations with the patient and parents. Review confidentiality and encourage participation.
- Create a safe environment to interview the child or youth alone, without parents. After the introduction, it is generally appropriate to request permission to see the patient individually. Sometimes, it may be more appropriate to interview the family together depending on the child's stage of development.
- Prioritize establishing good rapport, comfort, and openness during the discussion. It is important to show interest, offer positive feedback, use open questions, provide options, as well as checking on your and their understanding. Motivational interviewing such as OARS strategy is a useful approach for engagement and assessment.(14)
    - **O** stands for open-ended questions.
        - It helps engage patient in a 2-way dialogue to understand barriers and expectations.
    - **A** refers to affirmative statements.
        - These statements show that you recognize the patient's strengths, successes and efforts to change. It promotes a collaborative relationship.

R is reflective listening.

Reflective listening is a skill that you listen actively and respond with thoughtful paraphrasing. It ensures that patient is heard and validated.

S stands for summary statements.

Recap regularly to clarify the patient's points and identify goals to act on.

Let us go back to our case. Given the normal blood test results and Mrs. Smith's concern, you believe a complete psychiatric history is the appropriate next step to obtain more accurate and relevant information from Becky to help clarify the differential diagnosis.

You use a **stepwise approach** to facilitate the interview process:

1. **Set up the interview.**
   You note that Becky has remained quiet, you ask Becky if you can have a private conversation with her. You also explain the process to Becky and Mrs. Smith that it is typical to talk one-on-one with the patient, then one-on-one with the parent, and then bring them all together at the end.

   During this introduction, a clinician should pay attention to whether the patient is maintaining eye contact and their overall body languages. If the patient appears uneasy, attempt to ease the situation by offering easy non-threatening closed end questions. Check if the patient and parents are comfortable with one-on-one conversation, especially for younger kids and children with developmental delays. It is a crucial moment to watch how parents respond to their child when leaving the room as well as the child's reaction.

2. **Ask open-ended questions to build rapport.**
   Begin with questions such as "What brings you here today?" or "Tell me about yourself." to elicit responses that provide the basis of the interview. If a child is shy, asking demographic questions like "How old are you?" can help reduce anxiety.

   Some physicians like history-taking tools such as the HEADSS framework because it helps them remember the key questions to ask and obtain a complete psychosocial and medical history. The framework is not meant to develop any specific diagnosis, but rather to build rapport between the clinician and the patient and assist history-taking.(11,12,14,15)

HEADSS is an acronym that represents the following domains:(12–14)

	H	is	Home
	E	is	Education or employment, eating and exercise
	A	is	Activities, hobbies and peer relationship
	D	is	Drug use, including prescribed medications, alcohol, cigarettes and recreational drugs
	S	is	Sexuality and sexual activity
The last	**S**	is	Suicide, depression & mental health, safety/risk

There is no uniformly standardized set of questions. Depending on the patient's age, you may change your word choices, phrase the questions differently or skip irrelevant questions. Again, the priority is to build rapport. The conversations can flow organically but the framework reminds you the key aspects to obtain a complete and relevant history.

Let us go through a few example questions in the **Education** domain. School plays an important role in the lives of children and teenagers. To start the conversation, it is usually easier for children and youth to answer a few simple questions such as "Are you in school?", "Which grade are you in?" and "Is it in-person or online?". Then ask more specific questions to obtain information about social anxiety or behavioral issues. For example, "How do you spend time in recess?", "Do you have a friend in school?" or "Do you have anyone in school whom you consider as a friend?". Keep in mind that it creates a more comfortable space when you use the word "a friend" instead of "friends". As the interview progresses, questions focusing on academic topics can be asked to assess the patient's learning performance and awareness of his/her own learning. It is better to begin with "What is your favorite subject?" and "Which subject is more challenging for you?", then move on to questions like "What grades do you get?", "How do you feel about your report card?" or "What do you want to do when you finish school?".

To learn about the patient's **Home life**, begin with "Who lives with you?". This lays the foundation to ask about "How do you get along with your mom and/or dad?", "How do they get along?", "How is your relationship with your siblings?", and "What things do you do together?" to understand the family dynamics. Pay attention to any family circumstances that may contribute to the patient's condition.

Talking about **Activities and hobbies** is another domain that can help build rapport. Questions such as "What do you do for fun?", "How do you spend your free time?", "Are you in any sports or activities?" and "How do you get along with other people?" are useful because clinicians can recognize and highlight the patient's success, strengths, and resilience. Also, some disorders are associated with losing interests which can be identified by asking these questions.

Now you have already covered the first three letters of **HEA**DSS and successfully built some trust with Becky.

3. **Discuss chief complaint and history of present illness.**
At this moment, the interview questions can be more specific to collect information about the chief complaint. If the patient has completed a screening tool prior to the appointment, it is helpful to review the results with the patient and discuss areas that need more clarification. The tool helps support a diagnosis and sets up the stage for discussing the present problems and symptoms. If a screening result is not available, ask open-ended questions to encourage patient to describe the present problems. Having the DSM-V criteria nearby is a good idea when you assess the symptoms. This mnemonic – COLDER may help you structure the questions.(14)

C	is	Characteristics of the symptoms
O	is	Onset
L	is	Location
D	is	Duration
E	is	Exacerbation
R	is	Relief

Include depression and anxiety disorders on your differential diagnosis and ask all patients about their mood. Invite your patients to describe their mood by asking "On most days, how do you feel?". If your patient finds it difficult to describe, encourage him/her to use a rating scale, which "1" means feeling hopeless most of the time while "10" means fabulous. If the patient tells you that "I feel tired and sad.", then following up with a few leading questions is appropriate. For example, "When did this feeling begin?", "How often do you feel this way?" and "How long have you had this feeling?". These questions can help patients understand what information is needed from them and elaborate on their answers.

For all patients presenting with depressed mood, remember to do a screen for bipolar disorder. Ask "Have you ever felt having tons of energy that you do not need to sleep, like for days?", "Have you ever felt your mood is on top of the world?" and "How long did it last for?".

After inquiring about their mood, it is important to remember the last letter of HEADS**S**, which stands for **Suicide and Safety**. Suicide is preventable and it is crucial to look for any risk factors. Ask directly if the patient has suicidal ideation. Ask an older child or a teenager, "Do you have any dark thoughts about harming yourself or suicide?". Little kids may not have the concept of suicide, the question can be reworded to "Do you want to disappear or run away?". If the patient answers "Yes", it is important to ask these questions, including: "How long have you had these thoughts?", "Have those thoughts ever gotten so bad that you acted on them?", "What was your plan?" and "How are you feeling now? Do you have any plan to harm yourself or others?".

Remember to screen for adverse experience and loss as they are risk factors that affect current and future health. Ask the patient "Have you experienced anything that really scared you?", "How did it affect you?" and "Does it affect you now?". Then respond with empathy and validation to highlight the patient's strengths and resiliency.

4. **Do not forget about the full patient history.**
   Depending on the child, you may need to invite the parents/guardians back into the room and gather the following information:
   - Past medical history (both physical and psychiatric), including successful and unsuccessful treatment.
   - Current medications and allergies.
   - Past surgical history.
   - Perinatal and developmental history, including pregnancy, delivery, complications, and milestones.
   - Family history, particularly focused on psychiatric disorders and genetic diseases.
   - Social history such as housing status, religious belief, smoking, drinking, drug use, and sexual health.

   Let us cover the remaining two letters of the HEA**DS**S, which are D (drugs) and S (sexuality). Depending on the child's age and stages of development, you may skip these questions if irrelevant.

   Patients may feel nervous when being asked about **Drug/substance use**. It is helpful to begin with statement like "I am going to ask you a few questions that I ask all my patients. It may sound awkward, but please be honest and it will help me understand your experience". Then, ask questions such as "Many young people experiment with drugs, alcohol or cigarettes. Have you ever tried them to relax or get high? What have you tried?". Opening with general remarks normalize the situation and facilitate openness during the conversation. Other questions to help assess safety issue are: "Are there any drugs at your school?", "Do any of your friends take drugs?" or "Have you even ridden in a car driven by someone who was high or had been using alcohol or drugs?".

   Sexuality is a sensitive topic. Use open-ended questions to avoid any assumptions. For example, "How do you describe your sexual orientation?", "How do you identify your gender?", "Are you / have you been involved in a relationship?", "How was the relationship?" and "Have you been sexually active?". During the interview process, remember the role of a clinician is to create a safe and inclusive environment for all patients.

Congratulations! Now, you have a good idea of taking a complete psychiatric history.

Mental Status Examination

So, what is mental status examination (MSE in short)? It is the physical examination for psychiatry to evaluate the patient's current state.(16) As mentioned earlier, the assessment begins when the patient enters the room. Through passive observation during the interview and direct questioning, you acquire information to determine the patient's mental status at that moment as well as monitoring signs and symptoms of mental disorders.

Mental status examination is organized differently by each clinician but has the same main areas of focus. The broad categories are physical appearance, attitude toward the clinician and parents, mood and affect, behavior, motor activity, speech, thought process, thought content, overall cognitive functioning, insight, and judgment.(13,16,17)

Throughout the interview, keep in mind to look for nonverbal cues. As the patients speak, observe if they are avoiding eye contact, acting nervously, playing with their hair/fingers, or tapping their feet consistently. These mental notes are important and may offer insight into the patient's illness.

The International Association for Child and Adolescent Psychiatry and Allied Professions' e-Textbook of Child and Adolescent Mental Health(17) is a helpful resource; it highlights characteristics and behaviors that clinicians should monitor and assess during the interview. Imagine Becky is sitting in front of you now, you are paying attention to each MSE category listed in the textbook.

- **Physical appearance.** Take notice of her:
    - Age, both actual and apparent
    - Clothes, grooming and hygiene
    - Dysmorphic features
    - Nutritional status, bruises or scars
- **Attitude toward the clinicians and parents.** Observe her:
    - Eye contact level
    - Ability to cooperate and engage in the conversation
    - Behavior towards her parent in the room
- **Mood and affect.** When you ask Becky how she feels most days, you also examine her expression and energy level.
    - Does she look and sound depressed?
    - Does she look anxious?
    - Does she sound irritable?
    - A patient's affect is defined in the following terms: expansive (contagious), euthymic (normal), constricted (limited variation), blunted (minimal variation), and flat (no variation).(13) Affect is noted to be inappropriate when there is no clear connection between what the patient says and how the emotion is expressed.
- **Behavior and motor activity.** Also observe Becky's activity level, coordination and if she has any unusual motor patterns.

- **Speech.** During the conversation, take notice of the patient's fluency, volume, speed, quantity, and language skills, especially the quality and speed when answering open-ended questions. Evaluate if the patient's speech is age-appropriate.
- **Thought process and content.** Examine if Becky has any thought disorders, hallucinations and/or delusions.
    - Does the patient respond directly to your questions?
    - Does the patient wander off-topic that you need to guide her back to the topic more than once?
    - Dr. Forest's article (13) on mental status examination shared good sample questions to determine if a patient has hallucination or delusion. For example:
        - "Do you see things that no one else can see?"
        - "Do you hear voices when no one is around?"
        - "Do you have any special powers or abilities?"
- **Overall cognitive functioning.** Monitor the patient's ability to pay attention, stay concentrated, recall short-term and long-term memory, develop appropriate vocabulary, learn knowledge, think, and make decisions. For example:
    - Does patient appear to lose interest and have difficulty following the conversations over a long period?
    - Can the patient show an age-appropriate drawing?
    - Does the patient demonstrate age-appropriate knowledge?
- **Insight and judgment.** Use evidence from the conversations to evaluate the patient's level of acknowledgement of the problems, capacity to make judgement, attitude towards receiving help, and potential compliance with treatment. After reviewing Becky's history, symptoms and your MSE notes, your preceptor and you are both convinced that "Patient is aware of the fact that she has some mood issues, wants to get help and willing to start treatment".

Summary

Finally, let us review the major points discussed in this podcast.

- Nationally, about 20% of Canadian youth have a mental disorder in a given year, and this proportion has remained stable over time.
- Although the differential diagnosis is extensive, keep in mind the age of the child and the likelihood of certain disorders occurring at that age. For instance, separation anxiety, ADHD and tic disorders emerge at a younger age while depression and substance use disorders commonly emerge during adolescence.
- When doing pediatric psychiatric assessment, it is important to include multiple informants like the patient, parents, and teachers.
- A stepwise approach can help organize history-taking:
    1. First, introduce yourself and explain the nature and purpose of the assessment. Set up an interview with the child individually if appropriate and after getting permission.

2. Second, use open-ended questions to build rapport. The HEADSS framework is a helpful acronym that may remind you of the home, education, and activities in this part of the history-taking.
3. Third, ask about chief complaint and history of present illness. Invite patients to describe their moods and present problems. Validated screening tools and the COLDER mnemonic help you structure your questions when assessing the symptoms. Please remember that suicide is preventable. Include depression and anxiety disorders on your differential diagnosis and evaluate the risk factors.
4. Forth, take a full patient history. It includes past medical history (both physical and psychiatric), current medications and allergies, past surgical history, family health and psychiatric histories, the child's development, and the child's social history.

- Mental status examination is the physical examination for psychiatry. Through passive observation during the interview and direct questioning, you acquire information to determine the patient's mental status at that moment as well as monitoring signs and symptoms of mental disorders.
- Mental status examination is organized differently by each clinician but has the same main areas of focus, which are: physical appearance, attitude toward the clinician and parents, mood and affect, behavior, motor activity, speech, thought process, thought content, overall cognitive functioning, insight, and judgment.
- After interviewing the child or youth, it is typical to talk one-on-one with the parent, and then bring both the patient and parents all together at the end.

To assist your learning, I also prepared a handout with some example questions for psychiatric history taking. Please check out the PedsCases website and download the handout if you find it helpful.

Thanks again for listening to this podcast. Good-bye!

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