

Approach to risk identification in undifferentiated mental disorders

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Abstract

Objective To provide primary care physicians with a novel approach to risk identification and related clinical decision making in the management of undifferentiated mental disorders.

Sources of information We conducted a review of the literature in PubMed, CINAHL, PsycINFO, and Google Scholar using the search terms *diagnostic uncertainty, diagnosis, risk identification, risk assessment/methods, risk, risk factors, risk management/methods, cognitive biases and psychiatry, decision making, mental disorders/diagnosis, clinical competence, evidence-based medicine, interviews as topic, psychiatry/education, psychiatry/methods, documentation/methods, forensic psychiatry/education, forensic psychiatry/methods, mental disorders/classification, mental disorders/psychology, violence/prevention and control, and violence/psychology.*

Main message Mental disorders are a large component of practice in primary care and often present in an undifferentiated manner, remaining so for prolonged periods. The challenging search for a diagnosis can divert attention from risk identification, as diagnosis is commonly presumed to be necessary before treatment can begin. This might inadvertently contribute to preventable adverse events. Focusing on salient aspects of the patient presentation related to risk should be prioritized. This article presents a novel approach to organizing patient information to assist risk identification and decision making in the management of patients with undifferentiated mental disorders.

Conclusion A structured approach can help physicians to manage the clinical uncertainty common to risk identification in patients with mental disorders and cope with the common anxiety and cognitive biases that affect priorities in risk-related decision making. By focusing on risk, functional impairments, and related symptoms using a novel framework, physicians can meet their patients' immediate needs while continuing the search for diagnostic clarity and long-term treatment.

Undifferentiated mental disorders are those for which the diagnosis is unclear, the symptoms might be evolving, or there is overlap with multiple conditions. This is a common situation facing primary care physicians and such patients present the greatest challenges, as exemplified by the following case.

Case description

John, a 30-year-old man, is booked for a 10-minute appointment and complains that he feels "keyed up" and has only been sleeping 4 or 5 hours a night for the past 2 weeks. He is married and has 2 young children aged 3 and 5 years. His wife works during the day in a stressful job. He has been feeling extremely irritable and during one

EDITOR'S KEY POINTS

- Primary care physicians are often the first and only point of contact for patients with mental disorders. Initial attention, particularly in the case of patients with undifferentiated mental disorders, should be oriented toward risk identification, as it often takes time to arrive at a diagnosis, and the safety of patients and those around them needs to be addressed immediately.
- The degree of ambiguity and complexity in mental disorders often involves multiple providers and organizations assessing the same patient over months and even years. The authors present a structured framework and novel approach to categorizing information as *observed, reported, or suspected* that can help clinicians identify risks and make clinical decisions and that can be useful for other providers accessing the clinical record to understand the degree of certainty.
- Using a structured approach to assessment can mitigate the likelihood that concerns about causation and diagnosis will distract from risk recognition and its management. This framework provides a way to organize the clinician's thinking that deconstructs the array of gathered information into components that can inform medical decision making.



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This article has been peer reviewed.
Can Fam Physician 2016;62:972-8

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of their arguments put his fist through a wall in their house. He reports that he has been drinking alcohol and snorting cocaine for the past few weeks to manage his distress and to help him stay awake for his afternoon shift as a forklift operator. In fact, he snorted some before this visit. He is now so uncomfortable he tells you he wants to die. He exhibits psychomotor agitation and pressured speech but he is coherent, dressed appropriately, and maintains eye contact.

There are many concerns competing for the physician's attention in this case, making it difficult to prioritize risks and other aspects of this patient's care. Time pressures, the complexity of John's issues, and the anxiety they might produce in the physician can result in missing key risks to John and others. Risk-related clinical decisions should be the first priority en route to diagnostic clarification and treatment. We suggest the following approach to organizing clinical information:

- What do I need to do now? (Refers to imminent risks.)
- What do I need to do soon? (Refers to evolving risks, functional deficits, and symptoms that might evolve into immediate risk.)
- What do I need to pay attention to over time? (Refers to issues including long-term risks, diagnostic clarification, ongoing symptoms, functional impairments, and chronic conditions.)

Sources of information

The literature review was conducted using PubMed, CINAHL, PsycINFO, and Google Scholar. We used the key words *diagnostic uncertainty, diagnosis, risk identification, risk assessment/methods, risk, risk factors, risk management/methods, cognitive biases and psychiatry, decision making, mental disorders/diagnosis, clinical competence, evidence-based medicine, interviews as topic, psychiatry/education, psychiatry/methods, documentation/methods, forensic psychiatry/education, forensic psychiatry/methods, mental disorders/classification, mental disorders/psychology, violence/prevention and control, and violence/psychology*. All relevant articles that contained information or evidence related to uncertainty, diagnostic clarification, medical decision making, risk identification, and risk assessment in psychiatric care were considered for inclusion. Identification of possible risks versus the assessment of specific risks, particularly with regard to undifferentiated mental disorders, has not been addressed.¹⁻⁸ This lack of attention to identification of possible risks in undifferentiated mental disorders is a large gap in the literature and in clinical practice.

Main message

Psychiatric assessment is particularly vulnerable to variations in diagnostic approach and management, potentially leading to treatment delays, suboptimal treatment, and adverse outcomes.⁸⁻¹⁰ This is reflected by the fact that

depressive disorders are the second leading cause of disability worldwide despite their treatability, and mental disorders as a whole account for the greatest proportion of the global burden of disease.¹¹ Diagnoses are a matter of probability and in psychiatry diagnostic clarification might be prolonged. However, in the primary or acute setting, undifferentiated cases often require attention and management despite the absence of a clear diagnosis. Our premise is that identifying potential risks should occur before assessment of specific risks can begin. Without the recognition of these risks, the clinician is vulnerable to prematurely narrowing his or her attention and missing other risks that are present but go unseen.

The problem of uncertainty. Identification of risks related to mental disorders can be difficult owing to the uncertainty inherent in undifferentiated psychiatric presentations and the lack of specificity between diagnosis and risk. The management of possible risks in clinical practice requires physicians to make decisions despite uncertainty. Three areas of uncertainty affecting medical decision making and reasoning provide a rationale for a structured approach to risk identification in these patients. These areas include the complexity and ambiguity inherent in the conditions we treat; the limitations of the tools used for assessment; and the vulnerability of our cognitive processing when gathering data.¹²⁻¹⁶

The conditions: Factors contributing to the complexity inherent in mental disorders include a lack of pathognomonic indicators, overlapping conditions, and frequent comorbidity. Some phenomena are obviously abnormal but infrequently seen. Signs and symptoms vary according to context and phase of illness and often declare themselves over time.¹⁷ For example, in the case of John, are we dealing with agitated depression, bipolar disorder, psychosis, severe anxiety, substance dependence, or a disease that involves multiple organ systems? Ambiguity of phenomena and challenges in eliciting subjective symptoms create a difficult context in which to achieve clinical clarity or determine treatment priorities.

The tools: For mental disorders, standardized instruments are infrequently used clinically and provide little information regarding risk or functional impairment.¹⁸ There is a lack of criterion standards and objective measures, reducing the reliability of assessment. Existing validated inventories are limited to screening questions for the purpose of diagnosis but are insufficient for comprehensive risk identification. There is a reliance on subjective reporting to establish diagnoses and guide care. The desire to understand the patient's "story" potentially diverts attention from risk-related aspects of the patient's condition. Even mental health specialists lack education in key areas of risk.¹⁹

Physicians' cognitive processing: The dearth of useful evaluation tools exacerbates physician vulnerability to assessment error.²⁰ Emphasized are the physician's

cognitive response to uncertainty, the heightened anxiety in acute situations, and cognitive errors to which physicians are vulnerable. These include heuristics and myriad cognitive challenges such as anchoring, causal reasoning, lay epistemology, and availability bias. Such processes contributing to clinician fallibility have been well described elsewhere.^{13,14,21-25}

Developing an approach to risk. Given the variables that affect assessment and management of mental disorders, orienting the physician’s attention to salient aspects of risk should be prioritized. The ideal approach should reduce the physician’s susceptibility to prematurely focusing on specific risks and missing others. It should begin with broad categories of risk to the patient and others, followed by attention to functional impairments and then symptoms that cue the physician to risks not otherwise identified. Missing key aspects of the patient’s condition might have catastrophic outcomes. For example, in the case of John, it is essential to ascertain his degree of suicide risk, dysregulation, and impulsivity. One should ascertain if he is a risk to others at work, on the road, or to his wife and children. While assessment tools focused on specific risks, such as suicide and violence, are in use, none provide a cognitive framework for considering all possible risks or to assist with information gathering and decision making for undifferentiated cases in primary care. We propose such a framework.

The framework. The proposed framework is designed to assist physician thinking and use of available information to optimize the identification of possible risks in primary care, acute care, or when a chronic

condition has changed. Risk identification facilitates developing a risk-focused management plan that optimizes harm reduction while seeking a diagnosis.

A number of categories have been organized into grids to provide cognitive aids for use during the clinical interview to assist with data gathering and decision making (Tables 1 to 3). This schema is designed to limit cognitive burden and amplify relevant information to generate an inclusive approach to risk.

Data should be organized into 3 categories—observed, reported, and suspected—as they relate to functional impairments and signs and symptoms. These categories bring phenomena into awareness, with the intent of shifting the assessment from a primarily intuitive (type 1 thinking) approach to optimizing analytic (type 2 thinking) cognition.²⁴

The approach is organized into 3 broad categories: risk, function, and signs and symptoms. *Risk* refers to concrete, material harm or losses to the patient or others. *Function*, focused on impairments, refers to the reduced ability to appropriately respond to the demands of life that might contribute to risk. Risk-relevant *signs and symptoms* are identified and prioritized.

Risk: Risks related to mental disorders can be categorized into the object of the risk (ie, self or others) and the nature of the risk (ie, intended, unintended, or iatrogenic) (Table 1). The following are the areas of risk to consider: child safety, whether the patient can operate a motor vehicle, suicidal or homicidal thoughts, precarious work situation, injury, financial problems, unidentified acute medical illness, inadequate housing, and harm from others elicited by patient behaviour.

Function: The following domains of functioning are highlighted for related risks, and the associated

Table 1. Risk matrix

RISK	TO SELF		TO OTHERS	
	DEFINITION	EXAMPLE	DEFINITION	EXAMPLE
Intended	Effect of the behaviour is deliberate and volitional	Patient jumps in front of a subway train intending to be killed	Material harm to others is deliberate and volitional	Patient stabs family doctor owing to delusional belief that the doctor implanted a monitoring device in the patient's body
Unintended	Effect of patient behaviour on himself or herself is neither foreseen nor desired	Delusional patient stops drinking fluids owing to belief that she is being poisoned	Material harm to others from the patient's behaviour is neither foreseen nor desired	An intoxicated parent fails to notice his toddler enter the backyard swimming pool
Iatrogenic	Adverse consequences of medical intervention are neither foreseen nor desired	An elderly patient prescribed a benzodiazepine falls on her way to the bathroom during the night, suffering a subdural hematoma	Adverse consequences of medical intervention are neither foreseen nor desired	Patient who started taking quetiapine strikes a pedestrian while driving the next morning

information is categorized as *observed*, *reported*, or *suspected* (Table 2): personal care—basic and instrumental activities of daily living; dependents—children, impaired adults, elderly persons, and pets; licences—the capacity to safely maintain personal and professional licensure (eg, vehicles, machinery) and meet regulatory criteria; relationships—the ability to maintain intact normative patterns of social interaction; work—appropriate

attendance and ability to perform role-defined tasks; and education—the ability to meet demands (eg, attendance, performance, completion of tasks).

Signs and symptoms: Signs and symptoms relevant to risk are presented in **Box 1**. The patient’s cognitive, emotional, sensory, and behavioural variables are primary sources of clinical information. Signs and symptoms are categorized as *observed*, *reported*, or *suspected* (Table 3).

Table 2. Function matrix

FUNCTION	OBSERVED		REPORTED		SUSPECTED	
	DEFINITION	EXAMPLE	DEFINITION	EXAMPLE	DEFINITION	EXAMPLE
Personal care	Basic ADLs witnessed by the physician. Walking, maintaining continence, and managing money are the 3 that could be observed or directly assessed	After the patient leaves the examination room, the chair is wet and foul smelling	ADLs and IADLs communicated by the patient or others	The patient’s husband reports that he assists her to dress	Physician infers impaired personal care on the basis of indirect or absent information, or manner of response	The patient is poorly groomed and is malodorous
Dependents	Physician witnesses neglect or mistreatment of dependents	During the assessment the patient shows no response to her infant’s cries	Impaired ability to care for dependents is communicated by patient or others	The patient reports he has forgotten to pick up his son from school several times	Physician infers an impaired ability to care for dependents based on observed or reported phenomena	The patient states she begins drinking alcohol at 4 PM and by 8 PM has difficulty “controlling” the children
Licences	Witnessed behaviour in direct violation of the conditions of licensure	Patient arrives at the clinic intoxicated, having driven there	Violation of licensure or lack of fitness communicated to physician by patient or others	Patient reports he has made numerous errors in the operation of his crane owing to distractibility	Inferred from indirect evidence	Patient’s level of arousal and attentiveness is grossly impaired on mental status examination and the physician suspects impairment in patient’s role as a bus driver
Relationships	Witnessed impaired or inappropriate social interactions with providers or others	Patient comes to the visit with his sister. He yells at and threatens her when she begins to describe the family’s concerns	Impaired or inappropriate social interactions communicated by patient or others	Staff report that the patient was sitting very closely to and staring intensely at another patient in the waiting area	Impaired or inappropriate social interactions inferred from indirect evidence. Predominantly obtained from narratives or signs and symptoms	The patient reveals that she has no friends, people hate her, and she feels lonely, but the physician knows the patient to previously have been very social
Work	Demonstrated impaired attendance, performance, or behaviour	An occupational health physician is given a worker’s performance record	Impaired attendance, performance, or behaviour reported by patient or others	The patient gives the physician a form from work requiring medical support for 9 sick days in the past 2 mo	Impaired attendance, performance, or behaviour inferred from indirect evidence	The patient reports co-workers are lazy and rowdy and he is getting tired of telling them to be quiet
Education	Demonstrated impaired attendance, performance, or behaviour	A university physician is given a student’s transcript	Impaired attendance, performance, or behaviour reported by patient or others	The patient reports that he has not attended class for 2 wk	Impaired attendance, performance, or behaviour inferred from indirect evidence	A patient asks you for a letter to extend the due date for an assignment

ADLs—activities of daily living, IADLs—instrumental ADLs.

Table 3. Symptom matrix

SYMPTOMS	OBSERVED		REPORTED		SUSPECTED	
	DEFINITION	EXAMPLE	DEFINITION	EXAMPLE	DEFINITION	EXAMPLE
Cognitive	Directly observed or assessed phenomena pertaining to the mental processes of knowledge, perception, memory, judgment, and reasoning	The patient frequently asks the physician to repeat questions and is unable to decide when to book the next visit	Experience of mental processes is described by the patient or signs relating to mental processes are described by others	The patient describes concern about forgetfulness, feeling anxious, and an inability to make decisions. The patient's mother describes observations that reflect illogical thinking	Impairment in cognitive processes is inferred on the basis of described behaviour, events, or experiences	The patient describes answering the telephone while her toddler is in the bathtub and only recalling that she has done so when alerted by a cry from the bathroom
Emotional	Patient displays behavioural manifestations of feelings and mood states observed by the physician*	The patient is smiling and laughing throughout the office visit	A patient's specific description of feelings or mood, or related somatic or physiologic experience	The patient describes that she feels very content and happy and no longer has any worries	Inferred feelings or mood states from the patient's statements or behaviour	The patient is not spontaneous in speech, speaks softly, and believes her current situation has no solution
Sensory	A patient's sensory experiences cannot be observed. Beyond the standard senses of vision, hearing, taste, smell, touch, temperature, and pain, keep in mind other senses such as proprioception, kinesthesia, acceleration, velocity, orientation to gravity, etc. One can observe consequences of the sensory experience (eg, blindness, deafness) through behaviour, but these will often be inferred	The patient knocks over items and bumps into furniture as she walks into the room	A patient's or other's report of sensory experiences or explicit description of experiences that are confirmed to be sensations by the physician	The patient reports hearing voices	Experiences that are described or alluded to by the patient or observations by others, or direct observations by the physician that might be interpreted as sensory phenomena. Treat suspicion as a hypothesis to be tested over time	Patient frequently stops speaking mid-sentence and looks around the room. Physician infers the patient is hearing voices
Behavioural	Observed patient actions	The patient's speech is extremely loud and pressured	Patient or others report behaviour	The patient reports she has been staying up all night and spending excessive amounts of money shopping	Suspected behaviour based on information received by the physician	Patient denies drinking but has a high MCV and recently had a car accident

MCV—mean corpuscular volume.

*Emotions are inferred.

Box 1. Signs and symptoms in high-risk patients**Cognitive**

- Suicidal thoughts: Their identification often anchors clinicians' thinking, inadvertently precluding the survey for additional risks. Suicidal thoughts are frequently encountered in clinical practice
- Homicidal thoughts: Although homicidal thoughts are not frequently asked about, they are potentially catastrophic, as they can include multiple targets. They occur relatively infrequently
- Delusions: Focusing on beliefs that relate to risk and compel the patient to act
- Grandiosity: Exaggerated beliefs that one is not bound by physical, mental, or financial limits
- Attention deficits: Often associated with unintended risk
- Impaired judgment: Cognitive faculty related to discernment of consequences. Can the patient make wise or rational decisions, especially where action is required? Can the patient assess and draw reasonable conclusions?
- Impaired insight: To what degree does the patient believe he or she has a problem, condition, or illness?

Emotional

- Hopelessness: A symptom of depression that commonly occurs with suicidal and homicidal thoughts

Sensory

- Command hallucinations: Risky, infrequently seen, and often missed. The focus should be on the content of the command. Command hallucinations relate to associated risks that might be discordant with patient wants or intent. Command hallucinations are not obvious
- Other hallucinations: Focus on eliciting the content, as it reveals risks the most clearly

Behavioural

- Alcohol use*
- Substance use: Includes both prescription and nonprescription drugs
- Impulsivity

*Separated from other substance use owing to its legal and social acceptance.

and alcohol, unbeknownst to his wife. With respect to his substance use, you examine him and his blood pressure is 160/100 mm Hg. You advise him of his short-term and long-term psychological and physical risks and order appropriate bloodwork.

You ask John whether he wants treatment and wants to stop using substances. John says yes, particularly given the licensing concerns. In addition, you suggest that John tell his wife about his problems and his spending, and that they return for an appointment together within the next week. You tell John that his suicide risk will be monitored for worsening over time, pending clarification of the responsible conditions.

Conclusion

Primary care physicians are often the first and only point of contact for patients with mental disorders. Their initial attention, particularly in the case of undifferentiated mental disorders, should be oriented toward risk identification. Using a structured approach to assessment can mitigate the likelihood that other concerns about causation and diagnosis will distract from risk recognition and its management. This framework provides a way to organize the clinician's thinking that deconstructs the array of gathered information into components that can inform medical decision making. This is particularly valuable in the presence of uncertainty, when susceptibility to cognitive errors is high.

By focusing on risk, functional impairments, and symptoms of distress in the acute setting, physicians might reduce their own uncertainty and meet their patients' immediate needs while continuing the search for diagnostic clarity and long-term treatment.

Application of this approach has met with acceptance from residents and practising primary care physicians including academics in family and community medicine. Acknowledgment of the difficulty and anxiety evoked when working with patients with undifferentiated psychiatric conditions has been endorsed informally and through evaluations. Such an approach promises to be useful and practical.

The framework requires further proof of concept and testing of its internal and external validity. Its value needs to be formally assessed, including its clinical usefulness, the contexts in which it is most applicable, and the patient populations it best serves. Our goal is to develop a standardized model that can be confidently conveyed to and used across all providers working with those with psychiatric problems, allowing them to reliably identify risks and communicate with each other effectively. We recognize that the approach in its entirety might be cumbersome for a single, time-limited visit. Thus, perhaps it is best to describe this as an approach to characterizing and organizing complex mental health and addiction cases in primary care.

We also believe that the novel approach to categorizing sources of information as *observed*, *reported*, or *suspected*

Case resolution

You assess John's suicide risk and decide he does not require immediate admission or medical detoxification. He states that he is not responsible for his children during the day while his wife is working or before his afternoon shift. He has never been violent toward anyone in the family. He does not experience withdrawal symptoms from the alcohol but notices a crash in mood when the cocaine wears off.

John's safety as a forklift driver is in question and he has been driving his car while high. You advise him that you have a legal obligation to notify the ministry of transportation regarding John's licences.

Upon questioning, John reveals he has been spending approximately \$200 per week on cocaine

can be used by others in preparation for other cognitive aids, checklists, or electronic medical record templates. The degree of ambiguity and complexity in mental disorders often involves multiple providers and organizations assessing the same patient over months and even years. Information in clinical records is often difficult to verify and symptoms change over time. The 3 categories might assist users of the clinical record in knowing what the source of the information was and help in stratifying the degree of certainty of each data point.



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Acknowledgment

We thank **Dr Jamie Meuser** for his review and critique of several drafts of this document. Financial support for developing this tool was provided in part by a Janus Research Grant from the College of Family Physicians of Canada. The funding agreement ensured the authors' independence in researching and developing the framework, and writing and publishing the report.

Contributors

All authors contributed to the literature review and interpretation, and to preparing the manuscript for submission.

Competing interests

None declared

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