

Caution: Digital mental health approach has its limitations.

Consulting a qualified mental health professional is a pre-requisite for individuals' safety and correct diagnosis. If you have not done so, please self-refer yourself to a mental health professional through this system

The rapid expansion of digital mental health applications has transformed access to psychological support. Mobile applications, AI chatbots, self-help platforms, and digital cognitive behavioural therapy (CBT) programs have the potential to reduce stigma, improve accessibility, and partially address the enormous mental health treatment gap, particularly in low- and middle-income countries such as India (1,2). However, accessibility should not be confused with comprehensive clinical care. Digital innovation must not come at the cost of sound clinical judgement.

A growing number of digital mental health platforms allow individuals to self-diagnose, self-assess, and even initiate psychological therapies without any prior evaluation by a qualified psychiatrist, clinical psychologist, or other trained mental health professional. While these approaches may be appropriate for selected individuals experiencing mild psychological distress, they raise important concerns when used as substitutes for comprehensive clinical assessment.

One of the fundamental principles of medicine is that **symptoms do not necessarily indicate the disease they appear to represent**. Psychiatric symptoms such as anxiety, depression, irritability, hallucinations, cognitive impairment, behavioural change, insomnia, or panic attacks are not always manifestations of primary psychiatric disorders. They may represent underlying endocrine, neurological, infectious, metabolic, autoimmune, cardiovascular, respiratory, or systemic medical illnesses (3–6).

For example, hypothyroidism frequently presents with depression and cognitive slowing; hyperthyroidism may resemble generalized anxiety disorder or panic disorder; hypoglycaemia

may present with anxiety or agitation; epilepsy and brain tumours may initially manifest as psychosis or personality change; autoimmune encephalitis may present with acute psychiatric symptoms before neurological signs become apparent; vitamin B12 deficiency, hepatic encephalopathy, electrolyte disturbances, systemic lupus erythematosus, HIV infection, neurosyphilis, and Parkinson's disease may all initially resemble psychiatric illness (4–7).

When digital platforms immediately direct individuals toward self-help programmes or AI-delivered psychotherapy without first excluding these conditions, there is a risk that the underlying disease remains undiagnosed. During this period, the medical disorder may continue to progress while the individual receives interventions that cannot address the primary pathology. The consequence is not simply ineffective treatment; it may include delayed diagnosis, worsening disability, avoidable complications, and, in some cases, life-threatening outcomes.

The concern becomes even greater in high-risk clinical situations. Severe depression with suicidal ideation, first-episode psychosis, delirium, catatonia, bipolar mania, substance intoxication or withdrawal, and acute cognitive disorders require urgent clinical evaluation rather than self-guided digital interventions. International suicide prevention guidelines consistently emphasize that individuals at elevated risk should undergo timely assessment by appropriately trained clinicians (8–10). Although artificial intelligence and machine learning have shown promise in identifying patterns associated with suicide risk, current evidence demonstrates that these systems continue to produce substantial false-positive and false-negative results and cannot independently replace comprehensive clinical assessment (11,12).

Another important concern is **diagnostic overshadowing**, where psychological symptoms dominate clinical attention and underlying medical illnesses are overlooked. Traditionally, psychiatrists are trained to exclude organic causes before confirming a primary psychiatric diagnosis. Digital systems that bypass this step may inadvertently reinforce diagnostic errors. The danger is greatest when users assume that completion of an online questionnaire constitutes a diagnosis rather than a preliminary screening exercise.

The widespread adoption of unsupervised digital mental health interventions may also contribute to an increase in the **duration of untreated illness (DUI)**. Delays in accurate diagnosis and initiation of appropriate treatment are associated with poorer outcomes in depression, bipolar disorder, schizophrenia, anxiety disorders, and many neurological conditions (13,14). While digital platforms are often promoted as reducing treatment gaps, systems that fail to triage, assess severity, or identify alternative medical explanations may unintentionally widen another gap—the gap between first contact and effective clinical care.

Digital mental health should therefore be viewed as an extension of healthcare rather than a replacement for professional assessment. Screening tools, AI chatbots, wellness applications, and digital CBT are valuable components of stepped-care models, but they function best when embedded within clinically governed pathways. Every digital interaction should include structured risk assessment, clear identification of exclusion criteria, appropriate referral mechanisms, and access to qualified mental health professionals whenever significant symptoms or diagnostic uncertainty are present (2,8,15).

The future of digital psychiatry lies not in replacing clinicians but in strengthening clinical care through technology. Artificial intelligence can improve access, enhance monitoring, personalize interventions, and support clinical decision-making. However, it cannot yet replicate the comprehensive diagnostic reasoning required to distinguish psychiatric disorders from the many medical conditions that present with similar symptoms.

Digital mental health has enormous promise, but only if it remains grounded in the fundamental principles of medicine: **assess before treating, exclude reversible medical causes, identify risk early, and ensure that every individual receives the appropriate level of care.** Technology should facilitate clinical judgement—not substitute for it.

References

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Caution for digital Mental health

Non-Psychiatric conditions presenting with psychiatric symptoms

Many **medical, neurological, endocrine, metabolic, infectious, autoimmune, nutritional, toxic, and medication-related disorders** can initially present with psychiatric symptoms. Recognizing these conditions is essential before diagnosing a primary psychiatric disorder.

System	Non-Psychiatric Condition	Common Psychiatric Presentation
Endocrine	1. Hypothyroidism	Depression, cognitive slowing, psychosis ("myxedema madness")
	2. Hyperthyroidism	Anxiety, panic attacks, irritability, mania, psychosis
	3. Hyperparathyroidism	Depression, apathy, confusion
	4. Hypoparathyroidism	Anxiety, irritability, psychosis
	5. Cushing's syndrome	Depression, anxiety, mania, psychosis
	6. Addison's disease	Depression, fatigue, apathy, psychosis
	7. Pheochromocytoma	Panic attacks, anxiety
	8. Diabetes mellitus (hypo-/hyperglycaemia)	Confusion, agitation, delirium, personality change
Neurological	9. Temporal lobe epilepsy	Hallucinations, paranoia, anxiety, mood changes
	10. Brain tumour	Personality change, depression, psychosis
	11. Stroke	Depression, emotional lability, psychosis
	12. Parkinson's disease	Depression, anxiety, hallucinations
	13. Huntington's disease	Depression, irritability, psychosis

System	Non-Psychiatric Condition	Common Psychiatric Presentation
Infectious	14. Multiple sclerosis	Depression, cognitive impairment, mania
	15. Dementias (Alzheimer's, Lewy body, FTD)	Behavioural change, psychosis, depression
	16. Autoimmune encephalitis (e.g., anti-NMDA receptor)	Acute psychosis, catatonia, behavioural disturbance
	17. Traumatic brain injury	Aggression, depression, impulsivity
	18. Normal pressure hydrocephalus	Apathy, cognitive decline
	19. HIV/AIDS	Depression, psychosis, cognitive impairment
	20. Neurosyphilis	Personality change, psychosis, dementia
	21. Tuberculous meningitis	Delirium, psychosis
	22. Viral encephalitis	Acute psychosis, delirium
	23. Cerebral malaria	Delirium, behavioural disturbance
Autoimmune/Inflammatory	24. COVID-19 and post-viral syndromes	Anxiety, depression, psychosis, cognitive dysfunction
	25. Systemic lupus erythematosus (SLE)	Psychosis, depression, cognitive dysfunction
	26. Autoimmune thyroiditis (Hashimoto encephalopathy)	Psychosis, confusion
	27. CNS vasculitis	Mood changes, psychosis
	28. Sarcoidosis	Depression, cognitive impairment
Metabolic	29. Hyponatraemia	Delirium, confusion
	30. Hypercalcaemia	Depression, confusion
	31. Hepatic encephalopathy	Personality change, confusion
	32. Uraemia	Delirium, depression
	33. Wilson's disease	Personality change, psychosis, depression
	34. Acute intermittent porphyria	Anxiety, depression, psychosis
Nutritional Deficiency	35. Vitamin B12 deficiency	Depression, psychosis, cognitive decline

System	Non-Psychiatric Condition	Common Psychiatric Presentation
Respiratory/Cardiovascular	36. Folate deficiency	Depression
	37. Thiamine deficiency	Confusion, Wernicke-Korsakoff syndrome
	38. Niacin deficiency (Pellagra)	Dementia, psychosis, depression
	39. Vitamin D deficiency	Depression (association)
	40. Chronic hypoxia	Anxiety, confusion
	41. COPD	Anxiety, depression
	42. Sleep apnoea	Depression, cognitive impairment
Toxic/Environmental	43. Heart failure	Depression, delirium
	44. Carbon monoxide poisoning	Personality change, depression, cognitive impairment
	45. Heavy metal poisoning (lead, mercury, arsenic)	Irritability, psychosis, cognitive dysfunction
Drug-Induced	46. Organophosphate poisoning	Anxiety, confusion, depression
	47. Corticosteroids	Mania, psychosis, depression
	48. Levodopa	Hallucinations, psychosis
	49. Interferon	Depression
	50. Antimalarials (mefloquine)	Anxiety, psychosis
	51. Anticholinergic drugs	Delirium
	52. Opioids	Mood changes, delirium
Sleep Disorders	53. Withdrawal (alcohol, benzodiazepines)	Anxiety, psychosis, delirium
	54. Obstructive sleep apnoea	Depression, irritability, cognitive impairment
	55. Narcolepsy	Hallucinations, depression
Malignancy	56. Pancreatic cancer	Depression may precede diagnosis
	57. Paraneoplastic syndromes	Psychosis, cognitive impairment

Psychiatric symptoms that should prompt evaluation for an underlying medical condition

- Acute onset psychosis after age 40 years
- First episode of psychosis with no psychiatric history
- Fluctuating consciousness or delirium
- New cognitive impairment
- Visual hallucinations more prominent than auditory hallucinations
- Abnormal neurological examination
- Seizures
- Autonomic instability
- Fever or systemic illness
- Recent medication change or substance exposure
- Endocrine symptoms (weight loss, heat/cold intolerance)
- Focal neurological deficits
- Rapid deterioration despite psychiatric treatment

Initial investigations

For patients presenting with new psychiatric symptoms, a basic medical work-up often includes:

- Complete blood count (CBC)
- ESR and/or CRP
- Blood glucose
- Electrolytes, calcium, magnesium
- Liver and renal function tests
- Thyroid function tests (TSH, free T4)
- Vitamin B12 and folate
- Urinalysis
- Urine toxicology screen (when indicated)
- ECG
- HIV and syphilis serology (based on risk or clinical suspicion)
- Brain CT/MRI (if focal signs, cognitive decline, atypical presentation, or first psychosis)
- EEG (if seizures or episodic altered behaviour are suspected)
- Lumbar puncture and autoimmune encephalitis testing when clinically indicated

This differential diagnosis is particularly useful for psychiatrists, emergency physicians, neurologists, internists, and primary care clinicians evaluating a patient with a **first episode of psychiatric symptoms**.