

Debate & Analysis

A new approach to psychopathology:

the example of depression

INTRODUCTION

What is the nature of psychopathology? The currently dominant view is exemplified in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), which offers standard criteria for the classification of mental disorders.¹ These criteria (that is, symptoms) are believed to be manifestations of an underlying entity (that is, the disorder), just as physical complaints are manifestations of a physical disease. This perspective is called the 'common cause approach' and has dominated mental health clinical practice and research.

There have been several criticisms of this approach, including the questionable validity, reliability, and utility of psychiatric diagnoses.^{2,3} This is apparent from the striking heterogeneity in symptom profiles and course trajectories within the diagnostic categories,^{4,5} and high comorbidity across categories.³ Furthermore, neither neuroscience studies nor genetic studies have demonstrated biological causes convincingly.⁶ Another important critique is that the differential characteristics of individual symptoms and their potential causal relations are neglected.⁷ Finally, translating symptoms of distress into categories of psychopathology can medicalise everyday problems.⁶

In recent years the network approach has offered an alternative way of thinking about mental health problems.⁸ This approach conceptualises psychopathology as a dynamic system of causally related symptoms; it is not the mental disorder that provokes the symptoms, but symptoms that provoke or reinforce other symptoms. Several studies have applied the network approach to examine the nature of mental health problems in large epidemiological databases and longitudinal data of individual patients.⁹ These studies have among others identified specific symptoms that may be particularly important in explaining comorbidity across psychiatric diagnoses as well as the development and treatment response of depression.^{9,10} In addition, they have shown that the roles of individual symptoms in these processes differ across individual patients, providing a basis for personalisation of treatment.⁹ As these results have the potential to substantially influence the management of mental health problems in primary care, we want to illustrate how the network approach

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works for depression as an example of a highly prevalent condition for which the common cause model has been suboptimal in primary care; see, for example, the high rates of antidepressant prescriptions.¹¹ Moreover, we will speculatively formulate some consequences for the management of depression in primary care.

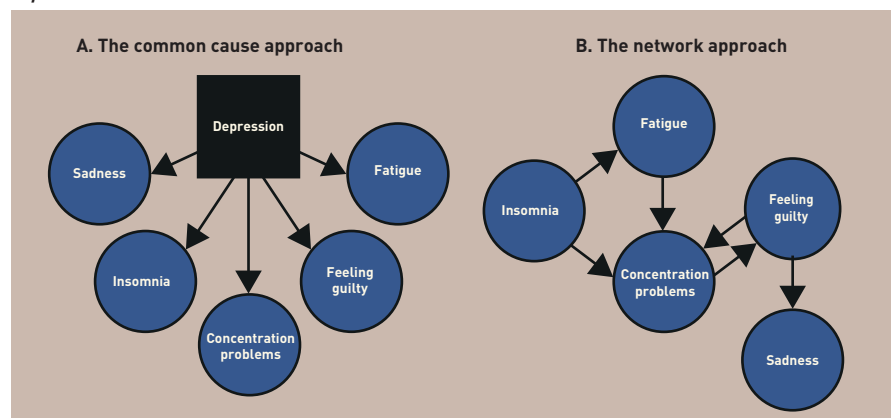
DEPRESSION

Currently, depression is predominantly viewed as the common cause of symptoms such as sadness, insomnia, and concentration problems (Figure 1A). If someone develops this depressive disorder — for example, after a divorce or financial problems — they will automatically experience a variety of depressive symptoms, which will disappear after the disorder is cured. The network approach opposes this view because it conceptualises depression as the way in which its symptoms are causally related.⁸ For example, insomnia can lead to fatigue and concentration problems, which, due to reduced efficiency at work, could induce feelings of guilt, provoking sadness and exacerbating concentration problems (Figure 1B). External factors can

directly trigger depressive symptoms. For example, menopause could induce insomnia via hormonal changes, or financial problems may cause worry and result in concentration problems. Through the complex interplay among symptoms, any triggered depressive symptom can lead to the development of a depressed state.

The network in Figure 1B is an example that may occur in many people, but why do some individuals develop or stay in a depressed state while others do not? One possible answer is that people experience different types and numbers of external triggers with varying effects on their depression networks. A life-changing event such as a divorce will probably cause a higher number and severity of depressive symptoms than a minor event such as a stressful day at work. Symptoms also have varying roles in a network. Specific symptoms influence more neighbouring symptoms (that is, have higher centrality) and are therefore more likely to cause and perpetuate a depressed state than other symptoms. In Figure 1B, for example, insomnia has higher centrality than sadness. Finally, the strength of connections among symptoms can differ across persons.

Figure 1. Schematic representation of A) the common cause approach and B) the network approach to depression.



“Adopting [the network approach] in primary care has the potential to contribute to the personalisation of care while advocating low-intensity treatments for mental health problems.”

Individuals with an internal locus of control, for instance, may be more vulnerable to feeling guilty over concentration problems than individuals with an external locus of control.

POTENTIAL CONSEQUENCES FOR PRIMARY CARE

Adopting the network approach in daily primary care practice provides a number of hypothetical consequences for exploring and treating depressive symptoms.

First, due to guidelines and expanding quality frameworks GPs are required at present to screen for the disorder major depression. Consequently, GPs attempt to collect the requisite number of symptoms for a diagnosis of a depressive disorder, often using screening questionnaires based on the DSM-5 criteria, to decide whether treatment is needed. Instead of putting the focus on the number of symptoms, the network approach stimulates the GP to concentrate on specific symptoms, their external triggers, and their causal relations in a conversation. This approach allows the GP to stay close to the patient's words, experience, and perception. Due to knowledge of the patient's context and the continuity of care provided, the GP is in an excellent position to assess the roles of symptoms in the context of a patient-specific network. A potentially valuable tool that can be used in this conversation is a data-driven network that can be constructed if a patient monitors symptoms during several weeks with ecological momentary assessment.¹²

Second, in current practice the treatment of depression is often started when multiple symptoms are present. The network approach assumes that each depressive symptom could lead to a full-blown depression.⁸ The GP should therefore carefully assess each symptom presented by the patient and consider its potential consequences for the depression network at an early stage. This could help the GP to decide if early intervention, either delivered by the GP or by specialised mental healthcare professionals, may be desirable.

Third, treatment should be targeted at the depression network. This will provide possible interventions on three levels:

1) external triggers of symptoms; 2) central symptoms; or 3) connections among symptoms.⁸ Trying to eliminate external triggers, for example, by solving financial problems, is a good starting point. However, not all external triggers can be removed, and feedback loops among symptoms might continue even after triggers have been eliminated. The next step is to treat specific symptoms, especially if they are central in the network. For example, a short treatment of hot flushes (a non-DSM symptom) in a depressed postmenopausal woman with hormone replacement therapy might improve insomnia (a DSM symptom) and result in a cascade of improvements in other DSM symptoms (less fatigue, more concentration, less guilt and sadness). A final treatment option is to target connections in the network, such as feeling guilty over concentration problems. In this instance, cognitive techniques to lessen the tendency of an individual to blame themselves could give symptoms the opportunity to recover and help to build resilience for when symptoms recur.

In conclusion, by shifting the focus from disorders to complex networks of individual patients, the network approach matches the GP's focus on the patient as a person. Adopting this view in primary care has the potential to contribute to the personalisation of care while advocating low-intensity treatments for mental health problems.

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