

BRENDA PENNINX ABOUT AN UNHEALTHY MIND IN AN UNHEALTHY BODY

Depression and anxiety disorders affect about a third of us at some time in our lives. Traditionally, they have been regarded as conditions of the psyche. But according to Brenda Penninx, Professor of Psychiatric Epidemiology at VU University Amsterdam, scientists are now gaining a far clearer understanding of the physiological and genetic factors involved.

Feeling down? Or anxious, perhaps? Tell your doctor today and you would expect him or her to refer you to a psychiatrist.

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who will then probe your state of mind using interviews and questionnaires before recommending a course of medication or therapy. And then you will hope for the best. But ten years from now your own general practitioner might be able to conduct a simple blood test to identify your condition and prescribe an effective treatment that works first time. That, says Brenda Penninx, is just one of the prospects presented by a major project she is coordinating. The Netherlands Study of Depression and Anxiety (NESDA) has been tracking nearly 3000 patients since 2004, and is now beginning to deliver real insights into what makes people susceptible to disorders of this kind. In the picture beginning to emerge, physical, neurophysiological, genetic and psychosocial aspects all seem to play their part.

"One promising line of enquiry is gene expression," she says, referring to the process whereby genes trigger the production of proteins and other materials. "We have recently been awarded a grant to explore this theme in more detail." If links can be found between particular disorders and activity by certain genes, then the presence of an associated protein in the body could lead doctors towards a specific diagnosis.

"Depression is an umbrella term for a whole range of conditions," Penninx explains. "Every patient is different, and it's not always clear from the way they feel - and how they describe those feelings - what the underlying cause is. So diagnosis is still a process of trial and error. Nor is the chosen treatment necessarily evidence-based. It can just as easily be driven by doctor or patient preference. Half the time a particular antidepressant drug will work and half the time it won't. So we try another. And then another, until something proves effective. One objective of NESDA and its associated studies is to understand much more about the fundamental

biology of anxiety and depression, so that we get the treatment right first time. Be that prescribing a particular course of medication, applying a specific form of psychotherapy or taking some other approach."

It is also becoming increasingly clear that an unhealthy mind often means an unhealthy body. Or vice versa. "We have long known that there is a link between depression and physical ill health. But there's now evidence that that's not just down to lifestyle." In other words, people are drinking and smoking and eating badly because they feel down, or slumping mentally because they are physically ill. "It actually seems that anxiety and depression might accelerate physical ageing. Research shows an association between these disorders on the one hand and, on the other, a whole range of somatic conditions: cardiovascular disease, diabetes, obesity and even possibly cancer and cognitive decline - see also illustration below. It's as if we're seeing the early onset of old age in our patients."

"What appears to happen is that being depressed induces a form of constant stress, so that the body's physical stress mechanisms - which are normally used to resist toxic substances or in response to danger - are permanently active. They're normally beneficial, but working in this chronic state of alert they simply exhaust the body. And in excess, the hormones and proteins produced have detrimental effects like raising blood pressure and disrupting fat metabolism. Hence the possible link with heart disease and obesity."

This complex and progressive pattern of disease might seem enough to depress anyone, but for Penninx it is only a cause for optimism. "The more we discover thanks to NESDA, the more hope it gives us. The findings are creating opportunities for whole new forms of intervention."

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