

The coming revolution in intervention science: from standardized protocols to personalized processes

Citation: Ciarrochi, J (2021, in press). The coming revolution in intervention science: from standardized protocols to personalized processes. *World Psychiatry* (accepted Feb 23, 2021)

Intervention science has set for itself a noble goal. How do we reduce mental health problems, promote happiness, and help people to engage in behaviour that is effective and in their best interest? The scientific community has now spent hundreds of millions of dollars and decades to answer this question. The good news is that we have made excellent progress. Meta-analyses suggest that a wide variety of interventions are effective in reducing mental illness¹, increasing well-being², and promoting effective health³ and work behavior⁴.

Despite this success, Hayes and Hofmann⁵ argue that the dominant approach to intervention research may no longer be adequate. Meta-analytic research supports their view. Psychotherapy effect sizes are modest (about .30), when compared to placebo or treatment as usual⁶. Perhaps most concerning, effect sizes appear to have stagnated⁷. The authors argue that the lack of progress is not due to a lack of effort. Rather, they identify three major problems with the "protocol-for-disease" research paradigm, which seeks to identify effective clinical protocols to treat latent diseases.

First, decades of research have failed to identify psychological diseases that exist independently of their so-called symptoms. We diagnose depression in individuals because they report feeling extremely sad and inactive, and then we say that they are inactive because they are depressed. In medicine, the physical disease can exist independently of symptoms: someone can have cancer with or without symptoms of fatigue and nausea. If we abandon the assumption that a latent disease causes depression, we can free practitioners from the medical model and all its assumptions about suffering being caused by some internal abnormality.

We can open up to the role of context, and see that people display patterns of depressive symptoms that are causally related in different ways. For example, two clients have both received a diagnosis of depression. With only this knowledge, the practitioner might give them the same treatment protocol. What if we assume that they do not have the same disease? Instead, we look at the pattern of symptoms and how they interrelate in context. Imagine we discover that one of the depressed clients has just lost her partner, which is leading to intense sadness that drives social withdrawal, while the other client has been bullied at work, leading to social anxiety, which drives social withdrawal and intense sadness. Though we diagnose both clients with depression, we would presumably not administer the same intervention to them.

A second problem with the protocol-for-disease approach is that it does not recognize the role of contextual factors in therapeutic outcome⁵. Therapeutic procedures are not effective across all people and contexts. Some clients may love structured mindfulness practice, whereas others find such practices anxiety provoking and decidedly unhelpful⁸. Finally, the protocol-for-disease approach has an excessive focus on trademarked packages rather than evidence-based process. It also fails to recognize the common, effective processes shared by different protocols. A protocol is not a single thing, like a 50 mg dose of penicillin. Some processes are useful to a particular individual, some useless.

Hayes and Hofmann propose a radically new way forward, which, if correct, would lead to a revolution in intervention science. Rather than focusing on protocols for diseases, they focus on individualized processes of change for promoting broad and flexible behavioural

repertoires. Their unifying framework allows people from any therapeutic approach to share a common process language focused on cognition, affect, attention, self, motivation, and overt behaviour.

Importantly, the framework shows how to tailor interventions for a particular person, in a particular context. Rather than assuming that a process, say emotional openness, has the same beneficial effect on everybody, it seeks to identify how different processes function, or drive well-being for different people. The practitioner identifies, through functional analysis, what intervention processes are helping the client, and what processes are inert and harmful, and emphasizes the effective processes. This means that some aspects of an evidence-based protocol may be discarded, at least for a particular client.

Hayes and Hofmann are seeking to change entirely the rules of the game. Shifting to their new process paradigm will not be easy. Improvements will not be immediate, just as the shift from Ptolemaic to Copernican system did not immediately result in better predictions⁹. Expect null results and missteps along the way. Making matters worse, the current academic environment is not conducive to revolution. Academia pressures scientists to publish fast and efficiently in the top journals, and this usually means staying within accepted and safe paradigms, such as evaluating protocols for hypothesized latent diseases. The alternative path is uncertain and could be inefficient, at least initially. Yet it may lead to something new and potentially exciting.

The scientific community must decide whether to spend 20 more years showing that standardized protocols perform better than placebo, but not better than other protocols. Or to take risks, make some mistakes, and see if it can create personalized interventions that help each individual reach his/her full potential.

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