

Dealing with cognitive dissonance: an approach

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Cognitive dissonance can be defined as a negative feeling which is – exemplarily – caused by a contradiction between our beliefs and our actions or by holding two inconsistent views.¹

In medicine, many situations can cause cognitive dissonance. Why is that?

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First of all, there is no denying it: errors in medicine occur – up to every tenth diagnosis in internal medicine is wrong^{2,3} – and they are one of the reasons for cognitive dissonance. To guarantee transparency, it is broadly promoted in North

America and Europe – or doctors are even legally bounded – to tell patients when errors occur. This, however, seems to be a situation in which cognitive dissonance can easily happen: on the one hand, we would not want to lie to our patients, but on the other hand, we do not want patients to lose trust in our abilities. From a few studies, we already know that patients easily lose trust when physicians admit uncertainty or lack of knowledge,⁴ supporting that there is still a belief that doctors should be ‘half-gods in white’ who usually do not misdiagnose or mistreat patients. Additionally, it is also of immense importance for doctors themselves to believe they are ‘good doctors’: Klein and McColl summarise nicely, in their paper entitled: ‘Cognitive Dissonance: How Self-Protective Distortions Can Undermine Clinical Judgement’, how doctors use self-justification and cognitive distortions to protect their self-esteem and how this might hamper decision making in medicine.¹ In their review of the existing social psychology literature on cognitive dissonance, they conclude that this phenomenon might significantly influence the way we react to errors. Both aspects – the need to be a ‘good doctor’ in our own opinion and in others’ – can lead exemplarily to the following strategies to reduce cognitive dissonance. We might tend to overestimate the positive sides of our decisions and overestimate the negative aspects of alternative

ways, thus even leading to an escalation of commitment to a chosen path.¹ Also, when making a diagnosis, it might lead us to overestimate information that supports our diagnosis and to ignore contradictory aspects. Furthermore, external factors are often blamed when errors occur, which makes it difficult to learn from errors that we have made.¹

Besides cognitive-dissonance situations caused by our errors, other situations might lead to cognitive dissonance as this, where they can be caused by discrepancies between evidence-based medicine and medicine that is practised in clinical reality. Klein and McColl give an example of this, where they report in their article that there is no need to perform arthroscopic surgery for patients with osteoarthritis of the knee.¹ Imagine a medical student who learns in university that there is no need to perform this procedure on a patient. When leaving medical school and being confronted with clinical reality, he or she might observe that this procedure is still commonly performed and that patients and doctors are very convinced of the benefits of this intervention. Naturally, this causes cognitive dissonance. Should medical students stick to their ‘textbook knowledge’ or should they adapt to clinical reality and copy the behaviour and beliefs of senior physicians? To overcome this tension, medical students might tend to ignore their ‘textbook

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knowledge' and adapt to the clinical culture.

As we have seen, different settings are leading to cognitive dissonance. On the one hand, cognitive dissonance can hinder us from admitting mistakes and learning from them; on the other hand, it might defer transferring new research findings to clinical reality.

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Therefore, we need strategies in medical education to reduce cognitive dissonance in order to improve everyone's performance in daily clinical practice.

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Which strategies can help us to deal with cognitive dissonance? Broadly speaking, we need to teach medical students two aspects: being open about errors and being open to change.

Ideally, the problem should be addressed in medical school, but

we should also focus on residents and attending physicians as only then can medical education be effective over the long-term.

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- 1 We could teach how to deal with cognitive dissonance by constructing virtual clinical case vignettes that lead to cognitive dissonance – and giving students scaffolds and feedback to deal with it. Confronting students with the problem and allowing them to learn from role models who are self-critical and deal with such situations properly, might be helpful.
- 2 Furthermore, Klein and McColl suggest that supervisors should be 'honest and open about errors' in order to be a role model for medical students and junior doctors and to give them room to admit and discuss mistakes.¹ Easily said but probably difficult to achieve, as this requires a new clinical culture with more tolerance of individual imperfections. Therefore, it is even more critical to address the problem in medical school

and to impart the fact that a 100% success rate cannot be the goal in medicine. Being a doctor does not demand that we are perfect, but it does demand lifelong learning. It is not a problem if we make an error, but it is a severe problem if the same error is repeated and the opportunity to learn from it is missed.

Self-knowledge is the first step to improvement; therefore, confronting students and physicians with the fact that cognitive dissonance will happen and that you have to endure it, might be the first step towards a successful medical education.

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