Cautious Certainty: Not Easy, But Nearly Always Necessary

As a new nurse working in a busy emergency department, and like many nurses who entered the profession in the 1990s, I learned a very standardized—some would even say protocolized—approach to providing emergency nursing care. For what seemed like every emergency care scenario, there was a protocol, checklist, or order-set that I could employ based on the patient’s needs. Although standardized care often works well for a variety of health conditions, even as a new nurse I recognized that with every application of a highly structured patient care protocol, there were a multitude of clinical judgment and decision-making opportunities along the way. These decision points often were, and still are, the sources of variation in both the care provided and, of course, in patient care outcomes.

In the early to mid-2000s, the evidence-based practice (EBP) movement continued to take form, accelerate, and become more widely embraced by leaders in clinical practice and academe (Melnyk & Fineout-Overholt, 2004). Just as in clinical practice, nurse educators embraced the principles of the EBP, where practice as a nurse educator should be guided by a combination of educator expertise, research evidence, and the needs and preferences of our students. Although the impact of the EBP movement on nursing education has been questioned (Ferguson & Day, 2005), the EBP movement, in both clinical and educational spheres, seems to have encouraged a more rational, logical, and inclusive approach to making decisions, while still requiring a decision-making process subject to myriad unseen, unconscious influences on our thinking that cognitive psychologists call cognitive biases. The number of cognitive biases identified by researchers is too long to list here, but I will briefly describe a few to highlight the forms these biases take and the role they play in our decision making. It should be noted that a newly developing field, implementation science, addresses both the reasons for and ways to move beyond resistance to implementing EBP (Dolansky, Schexnayder, Patrician, & Sales, 2017).

Decades of experimental research suggests that most cognitive biases are largely instinctual, automatic types of bias built into our brains and affecting the way we think and feel; cognitive biases exist in the unconscious mind, just below what we can actively perceive using our conscious minds. Nobel Prize-winning psychologist Daniel Kahneman synthesized what we know about cognitive biases in his widely acclaimed 2011 book, Thinking, Fast and Slow (Kahneman, 2011). Kahneman organized the way humans think into two systems: the fast system, which relies on intuition and gut instincts, and the slow system, where before decisions are made, we have the opportunity to question ourselves about, among other things, whether any cognitive biases are at work in how we are considering an issue, or the consequences of the decision we plan to make, and so on. It is with the fast system, which Kahneman calls System 1, that cognitive biases are most at work. This system of quick decision making, System 1, relies on simplistic rules that cognitive scientists call heuristics to make decisions. Decisions made based on System 1 principles are often the easier to make but are also the most challenged and questionable of our decisions. In our slower, more deliberate system, System 2, we can consider our initial System 1 thoughts and instincts, but also consider how other important factors could impact our eventual decisions. Before we go further, a description of a few of the types of biases with which we must all grapple is in order.

One type of bias to which we are widely susceptible is confirmation bias. That is, we tend to look for, and find (when available), evidence that supports our existing beliefs and feelings. If we believe that simulated learning experiences simply cannot replace the time spent in a clinical setting, research findings to the contrary, no matter their quality and quantity, are unlikely to change our minds. Similarly, if we believe that some students are simply cut out for nursing and that some students are not, we will tend to see examples that confirm this belief and find evidence, sometimes in research reports and sometimes just in our own experiences, that support this view, rather than evidence that disconfirms it. Similarly, another common bias is the recency bias, in which we tend to favor information that is newer over information that is older. So, a small, but rigorously done study published this year may hold more sway over our decision making than a meta-analysis of 10 similarly well-done studies published just a few years ago, even if the meta-analysis contributes substantially more information useful to our decision-making process than the single-site study does. In just these few examples, it is clear that if nurse educators rely solely on intuitions...
and gut instincts, we may make more biased, less-informed decisions, and these decisions could have significant effects on our students. This is why tapping into our System 2, slow-thinking processes is so very important.

The purpose of this editorial is to draw attention to the myriad cognitive biases to which we are all prone and therefore must consider as we engage in making decisions related to teaching and learning in our own nursing education programs and within the field, more broadly. With so many biases and their related heuristics at work in our unconscious minds, how do we ameliorate their effects as we read and interpret research findings, address difficult student situations, or make other complex decisions such as those involved in curriculum and program planning?

First, we need to recognize the real and actual biases that exist in the educational and practice arenas in which we work. As noted earlier, these biases are numerous, and clearly, for the sake of efficiency, we cannot consider each one separately. In my own experience, asking the simple question of “Why do I conclude ____?” or “What factors led me to conclude ____?” has proven effective to address several of the most common biases, related to confirmation bias, the recency effect, and the system justification bias, whereby existing systems are favored over new ones, even if new systems could be more fair and equitable to all involved.

In my campus office, I have a printed, framed image of what has been termed the cognitive bias codex, a graphical depiction of all the biases defined in cognitive research as affecting our decision making (Benson, Manoogian, & Benson, 2017). There are too many possible cognitive biases to list here, but the creators of the cognitive bias codex have done a nice job of reducing the cognitive biases into several broad themes easier to understand and track. There was a 4-foot-by-6-foot option for printing all the biases that I could not accommodate in my office, but given the number of folks who need to get close to see the text, perhaps I should have! So many cognitive biases exist that a less-than-poster-sized version is hard to read! But the fact which remains is this: Even when we think we have made the best possible decision in a given situation, have we accounted for, as much as we can, the biases that exists in our unconscious minds, so that the decisions we make are as objective and fair as possible? Rarely can anyone answer with a solid “yes,” and so the struggle to recognize and account for our biases continues, especially when the stakes for our students seem only ever to increase, rather than decrease.

As both a nurse and academic psychologist, I will not belabor the point that there are factors far beyond what we can easily observe that influence how we interpret the world around us. Whether it be learning science or the more focused science of treating patients with a specific condition, acknowledging our susceptibility to the biases that are universally present during decision-making processes requires that we ask the question, “Have we done enough to consider these biases and the impact they have on our decisions?” If not, then we have yet a long way to travel and are not ready to make a decision. If yes, then we can feel cautiously confident in our decisions and move forward accordingly. How are we each, individually and as a faculty, considering our biases during our decision-making processes?

References

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