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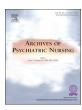
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The Value of Uncertainty

Joyce J. Fitzpatrick (Editor)



As a result of a 2018 study of neurocognitive results of experiments with monkeys, Yale researcher Lee concluded that we only learn from uncertainty (Yale News, 2018; Massi, Donahue, & Lee, 2018). If that is truly the case with humans then the learning occurring today with the uncertainty surrounding the COVID-19 pandemic positions us for considerable intense and dramatic learning. The amount of information alone is overwhelming and the predictive models of future permutations of the virus leave most of us with uncertainty. While some components of the pandemic are more certain than others, e.g., the value of wearing masks and social distancing, the more complex components continue to perplex even the most learned epidemiologists.

For mental health researchers and clinicians uncertainty is a key factor, not only, but especially in the current environment. As clinicians we need to help individuals, families and communities to adapt to the changes, yet the future is uncertain. Importantly, we need to help others focus on the present, to and to increase the active present learning that is occurring to address future uncertainty. The premise that more learning occurs with uncertainty is a core component of our interventions, helping others (and ourselves) acknowledge the uncertainty and build opportunities to learn and grow.

As mental health nurse researchers there are many additional opportunities for us. Scientists in several disciplines have recommended continued research focused on outcomes of uncertainty. While much of the neurocognitive research is ongoing, there also is considerable nursing research focused on outcomes of uncertainty, particularly related to illness, and initiated through the early and continuing work of Merle Mishel. Mishel's (1981) early research on uncertainty in illness began empirically through efforts at measurement (Mishel, 1981). Her presentation of the uncertainty in illness theory first occurred in 1988, after she had conducted several studies of the phenomena; she then re-

conceptualized the uncertainty in illness theory in 1990 (Mishel, 1988, 1990). Key components in Mishel's theory are the antecedents of uncertainty (symptom pattern, event familiarity, event congruence); the cognitive capacity of the individual and the capacity for self-organization; probabilistic thinking, and formation of a new life perspective (influenced by prior life experience, current physiological status and social and health care resources). Several applications or the theory and the related references are detailed in the work of Clayton, Dean, and MIshel (2018).

The theoretical perspective of Mishel, and the neuroscience research of Massi and colleagues (2018), holds promise for research on outcomes of uncertainty in the COVID-19 pandemic. The antecedents of uncertainty are present as are challenges for forming a new life perspective. The rather constant discussion in the midst of the pandemic is adjusting to the new normal. But adjustment without incisive and intentional learning will not suffice in building a more positive life perspective. Our potential is great for change during this challenging time.

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