## **E**ditorial

## Working at the Edge of Unknown Knowledge

Trabajando al límite del conocimiento desconocido

Trabalhando ao limite do conhecimento desconhecido

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Whenever I teach the graduate level course in Nursing Theory, my students and I discuss why experienced, licensed, professional nurses will benefit from learning nursing theory very well. Our conversation revolves around the idea that leaders are those professional people who often work at the edge of unknown knowledge. What is unknown knowledge?

Unknown knowledge is found whenever professional nurses encounter situations that have no pre-established answers at all. Nurses know that they must act on behalf of their patients, but when they encounter a situation that is a mystery, they are at the edge of unknown knowledge. History gives many examples of times when there was a clinical imperative to do something, but there was not enough knowledge to act with certainty.

One example of unknown knowledge was polio, which occurred in epidemics in the early twentieth century. The reasons for polio epidemics were not understood at that time. Even today, polio cannot be cured, so prevention remains our best effort. The work of Elizabeth Kenny of Australia, which was successful in preventing long-term paralysis, was rejected during her lifetime because neither Kenny nor physicians could explain how or why her methods worked. Although Kenny succeeded clinically, her knowledge was so limited that she was discredited during her lifetime as a 'quack' and a fraud (1, p. 78).

Another example of when nurses worked at the edge of unknown knowledge was when the AIDS epidemic erupted in the early 1980s. For nearly five years (1980-1985) the cause of Acquired Im-

mune-Deficiency Syndrome (AIDS) was unknown. In 1985, when the human immunodeficiency retrovirus (HIV) was discovered, a cure was not readily available. It would take another year for a diagnostic test to be developed. Then more years passed before medications to treat this disease were developed. From 1980 until about 1986, nurses and physicians who had no previous clinical experience with retrovirus illnesses had a duty to care for patients infected with HIV. All of us worked at the edge of unknown knowledge.

These two historical examples show that when clinicians arrive at the edge of unknown knowledge, it is clear that something that needs to be known is not yet known. The clinical imperative to act remains. Given these past models of unknown knowledge we can imagine future situations where there will be very little 'known' knowledge, and yet, there will be a duty to provide care.

Our graduate nursing students hope to hold a leadership or an advanced practice role when they graduate. They realize that solving very complex problems is expected when they hold such roles. My challenge to my students is to consider being the leader at the edge of unknown knowledge: how will they advise others to act where there is no 'known' knowledge?

My answer is: with theoretical thinking they will be able to meet the clinical imperative to act and they will understand how to frame questions to engage in needed research.

1. Oshinsky DM. Polio: An American Story. New York: Oxford University Press; 2005.