

“WHAT I DON’T KNOW ISN’T KNOWLEDGE”

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Historical Prelude

During that time in British history renowned for its smugness and known as the Victorian Era there lived and died a man of formidable intellectual prowess. Benjamin Jowett was appointed a fellow of Balliol College, Oxford, at the young age of 21 in 1838, as his potential was recognized early. He remained in the college for the rest of his life. In 1870, he was elected Master of Balliol, where he died in 1893. Shortly after his election, he was somewhat whimsically satirized by this anonymous quatrain:

First come I; my name is Jowett.
There’s no knowledge, but I know it.
I am the Master of this college.
What I don’t know isn’t knowledge.

Jowett is still renowned for his contributions to philosophy (particularly as an expert on Plato), ancient history, theology, and education, and he could dominate a discussion on almost anything the Victorian world could produce. First and foremost, he was aware of the power of education, and when he became vice-chancellor of the University, swimming against the current, he shaped Oxford’s future, giving priority to education over research. It was he who opened up the University to people from abroad (particularly India), so that the countries of the British Empire could develop an educated class and take part in their own governance. He also promoted the education of women, who were not allowed to receive degrees until 29 years after his death. He strongly supported this first step of women to be certified as passing the examinations for a degree.

He was great friends with or knew well most of the foremost politicians and educationalists of the 19th century in England. When asked by a student of

his in the 1890s whether the framed picture in his room was of Florence Nightingale, he admitted that years before, he had proposed marriage to her and had been turned down. The only record of this in Florence Nightingale’s diary was the terse note: “Benjamin Jowett came to see me. Disastrous! Nothing more.” (This incident is mentioned in the book *Florence Nightingale: Mystic, Visionary, Healer* by Barbara Montgomery Dossey.¹) Most of Jowett’s correspondence was burned, as he directed, after his death.

The Information Age

One of the obvious quandaries about knowledge is that to exist it has to be known, and to be powerful, it has to be known where it is needed. Informatics, the science of disseminating information in its most digestible form, is now one of the leading sciences of our new century. Knowledge is so abundant that we are drowning in it. In healthcare, we are frequently not in a position to know what is of value, and we try to sort out the good from the bad using the double-blinded randomized controlled trial as a gold standard. This is to the liking of the purists among us but deals poorly with the outliers and exceptions seen in the diseased state. We are caught in the dilemma of trying to do the best for the majority, with protocols and pathways to guide us, and at the same time, individualize our management for each patient. Most of us are working in a system governed by those who would prefer not to recognize individual differences and find descriptive research, at best, fourth class. We are in the beginning of a new information explosion that could revolutionize the treatment of critical illness, as well as almost every other aspect of medicine. We will need a new framework for our scientific thinking with our reinvestment in the value of the individual, rather than the “herd,” brought about by knowledge of the most personal part of our being—our genome.

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Genomics As a Paradigm

A diagnostic suggestion posed by physicians from Hippocrates to Osler was to ask not what disease a patient had, but why an individual patient should have a particular disease. The answers are now beginning to appear, as the human genome is unraveled, and give an almost incredible new view of disease processes and how their management could revolutionize therapy. As an example, the whole spectrum of reactions to infection is based on the individual's mobilization of the immune system. Too little immunity endangers a patient, because the defenses against the invading organisms are inadequate to control and overcome the infection. Too much immune response leads to the patient injuring himself, so that he develops the classical picture of septic shock and multisystem organ failure. We already know the genes that are induced by the stimulus of infection to produce such messengers as tumor necrosis factor or the particular interleukins (eg, Il-1, Il-2, Il-6, etc.) and other genes that can modulate or turn off the induction of these proinflammatory agents by the production of such substances as Il-10. The patients who are likely to overproduce these inflammatory factors and to develop septic shock syndrome can be identified in a few hours by DNA scans. The science of finding factors that can modulate gene function is only beginning, but already enough is known to indicate that this is likely to produce a better result than the trials of the blanket use of antimono-clonal and anti-tumor necrosis factor antibodies in early severe sepsis. A major portion of critical care congresses throughout the world is now devoted to genomics in relation to infection.

The use of genomic information to treat patients, and understand their susceptibilities to disease is likely to produce a tidal wave of information. Those who do not understand or appreciate this new knowledge will miss a giant leap forward in almost every aspect of disease diagnosis and treatment. Conveying this progress in a form we can all assimilate is a huge task for both scientists and educators. Some people are frightened of the information. Some wish to take a "head-in-the-sand" approach to their disease susceptibilities, which may be a form of denial to keep anxiety about possible death or disability at bay. Others fear their healthcare insurance rates or employment could be negatively affected by their genomic profile (currently an illegal discrimination in the United States). Still others object to interfering with the genome based on the belief that altering the genome to change hereditary characteristics is "playing God," despite natural selection being a cruel alternative. This new

knowledge is open to abuse, but more rather than less dissemination of the information is likely to secure the most benefit to mankind.

The Journal and New Knowledge

Just as knowledge will disappear if people cease to know it, a journal will not propagate information if nobody reads it. The Editors have been encouraged by readership surveys showing that an increasing number of critical care nurses are finding useful material in the Journal and by manuscripts being cited in the literature with increasing frequency.

In a recent planning meeting, it was decided to include review articles on subjects where there was significant new knowledge that would be useful to the readers. The Editors will also identify papers that would be suitable for journal club meetings and will provide significant questions for discussion and highlighting important points. The journal club may be a new format for many critical care nurses, but can be a very easy method of updating knowledge in a specific field in 15 to 20 minutes at a staff meeting. It also gives critical care nurses a better insight into how to evaluate the literature. The Editors would also like to encourage participants to write letters for possible publication with views or queries on both subject material and the process of presenting the information. These manuscripts may also become available online.

Descriptive research has tremendous value and is often harder to do well than a run-of-the-mill, randomized controlled trial. It is particularly useful where there is a patient-caregiver interaction or patient satisfaction is an outcome. In these areas, rigid protocols tend to canalize patients' responses into the investigators' format, leaving out interesting and important data. Descriptive research will often lead to more scientifically fashionable studies as ideas are developed. The Editors continue in requesting this style of investigation for peer review. The manuscripts are generally easier for clinicians to relate to, as the data are often about personal experiences. This is not to decry the value of the current standard scientific paper. Hard data are hard to beat and will continue to be a major part of the Journal.

Afterthought

Knowledge is not wisdom, but the more knowledge an individual possesses, the greater the opportunity to be wise. Decision making is enhanced by information and experience. In the field of critical care, those at the bedside are in the best position to make decisions on the management of patient care. This idea is in keeping with the Deming² approach

to the industrial scene in which the floor worker is considered to be in the best position to make improvements in the manufacturing process of an automobile. Unfortunately, the bedside is not a good position to obtain the new knowledge that may need to be integrated into a care plan, yet it may well be the best place to direct more of the educational resources at our disposal.

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