

## Postscript

The lessons I've learned from experience  
Added nothing to medical science;  
Yet, their price has been dear  
— I learned mostly through fear —  
And some left a scar on my conscience.

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## Illiteracy And Health Status: Can We Read The Meanings?

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A relation between literacy and health status, especially maternal literacy and child health, has been convincingly demonstrated in developing countries.<sup>1</sup> Weiss and colleagues<sup>2</sup> have performed a pioneering study, reported in this issue of the *Journal*, indicating that a similar correlation between illiteracy and poor health may exist in the United States. The Sickness Impact Profile (SIP), a well-validated questionnaire used to measure physical and psychosocial health, was administered to 193 subjects with low literacy skills who were enrolled in a publicly funded adult education program. The authors found perceived physical health status of the illiterate

subjects (defined as reading level less than the 4th grade) was poor and significantly worse than that of subjects with higher reading levels. Psychosocial health, as measured by the SIP, was more dramatically impaired. Psychosocial dysfunction was common in study subjects of all reading levels.

This study serves to remind us that many factors outside the traditional biomedical model are powerful determinants of health. Socioeconomic factors clearly confound the relation between literacy and perceived health status. The poor are overwhelmingly represented in any study of people with low literacy skills. They also experience the greatest barriers to the use of health care services and have the poorest perceptions of their own health. The authors chose to study only persons of low socioeconomic circumstances to minimize the range of socioeconomic variables. Multivariate statistical techniques were used to control for confounding socioeconomic variables. Other potential confounders were not addressed. Particularly concerning was the impact of only 4 individuals at the lowest reading levels (reading grade levels 0 and 1) who had poor health as demonstrated by very high SIP scores. Poor reading skills may have been the result of a health problem, rather than its cause. Data analysis excluding these extreme subjects was not included. In addition, while a correlation is demonstrated, the mechanism linking illiteracy and poor health is not explained.

Like all good studies, this report raises more questions than it answers. What is the relation between poor perceptions of health status and more objective assessments of actual health and function? Does illiteracy contribute to poor self-perceptions of health? Is poor health a barrier to literacy? How does a family physician best recognize the problem? Does illiteracy limit the effectiveness of our medical interventions? Are there effective, office-based strategies to identify illiteracy that we should learn? Doesn't this study support the contention that many important determinants of health require substantial investment in social programs other than direct health care?

It will come as no surprise to family physicians that a relation exists between literacy and the health status of their patients. Despite their poverty, the study group saw physicians frequently

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(mean of 5.5 visits in the previous year). Many family physicians directly encounter the kind of patient suffering that this study describes. How do we constructively meet this clinical challenge? Illiteracy might be a risk factor that deserves a place on our patients' problem lists along with tobacco use, childhood sexual abuse, or sedentary lifestyle. Improved skills at identifying and acknowledging illiteracy could help the physician develop rapport with patients and increase the effectiveness of the physician. Patient education efforts might also be more successful if they do not excessively rely on the printed word. Finally, knowledge of and referral to appropriate literacy programs might help reduce both physician and patient frustration, improving all our health.

Our struggle to read the medical meaning of an association between literacy and health exposes the "medicalization of health" in contemporary society. Societal investments in the important determinants of health, such as food, shelter, and education, could have a greater impact than expenditures for medical services. Family physicians will need to speak clearly and look past our office walls to influence and orchestrate the social systems that have an impact on the health of our patients.

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## Universal Precautions

As I watched the family practice, internal medicine, and anesthesiology residents tensely working to stabilize the 60-year-old mother of three who has been a dear patient of mine for the past 10 years, I was aware that our purpose was singleminded. Could we get her through the

cardiovascular collapse that made her cold, clammy, pale, and somewhat incoherent? "The lines" were all-important. Without them and the intravenous miracles they could produce, "the tube" would be next, and then what?

Later, in the intensive care unit, the patient was holding on to a still-tenuous life-death balance. For the physicians and nurses, the inserting of more lines (femoral, arterial, and Swan-Ganz) became all-consuming. It was when the resident continued to stab toward a disappearing radial artery that I started to take stock. Perhaps it was because I felt my patient's pain. Perhaps it was because the resident was technically clumsy. As if to make a critical situation better (and to release my subconscious thoughts that a more experienced resident would not be struggling so), I said, "She was negative on an HIV test a year ago." The nurse woke me up: "No one's HIV-negative."

The frenetic activity went on for about an hour. The patient was doing better and would, in fact, survive. I had time to reflect. While San Francisco General Hospital cares for great numbers of patients with AIDS and infectious diseases, precautions have been anything but universal. Some of the treating physicians did not wear gloves; none wore masks or goggles, although some wore their glasses. On one level, carelessness was understandable. The medical challenge was critical. There was no time for diversion. The patient was an ordinary 60-year-old woman. What secrets could there be? In fact, there were hardly any. Her sexual, drug, and transfusion histories were unremarkable. She did not have human immunodeficiency virus (HIV) infection or hepatitis. She lived with her retarded 25-year-old son, who first came under my care for treatment of dilantin-induced eosinophilic pneumonia. Knowing little about sex, nothing about sexually transmitted disease, and probably not understanding the overlapping emotions of love, sex, and attention, he had become the adult victim of sexual abuse by an

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