Medicine

Media Influence on Medical Decisions

The influence of media has become unparalleled in human history—both for good and ill. As an active clinician, I have always been interested in how media, in all its forms (print, electronic, and internet), determines how patients view medical facts. The March 22, 2010, *Archives of Internal Medicine* featured a provocative article by Jessica Fishman, Thomas Ten Have, and David Casarett, titled "Cancer and the Media: How Does the News Report on Treatment and Outcomes?" The authors reviewed eight large readership newspapers and five national magazines for the coverage of cancer-related stories. Trained coders analyzed the articles in a number of domains including survival, death and dying, and aggressive forms of treatment. Other highlighted areas in articles included treatment failures, adverse effects of treatment, and end-of-life care. Four hundred and thirty-six articles were reviewed, and significant disparities were noted. As an example of this disparity, it was found that 32 percent of the stories focused on survival while only 7.6 percent of the stories concentrated on death and dying. The majority of the articles (59.1 percent) described aggressive treatment protocols for a number of malignancies and only 0.5 percent discussed palliative or hospice care. The authors concluded correctly that media frequently reports on new and experimental treatments but rarely discusses end-of-life care, death, treatment failure, or adverse events. The authors express a valid concern that the media creates an overly optimistic and inappropriate view of cancer treatment and prognosis. I think they are onto something of profound importance. There is no sensationalism in reporting the reality that only little gains have been made in the cure of aggressive or metastatic malignancies. The fear of death can be a strong impetus to find stories about cancer that hopefully reassure the reader that all is well and medicine is on the verge of making human mortality something of the past. This may sound cynical, but I am convinced that there is a grain, perhaps even a nugget, of truth here. I can only wish media had such an optimistic viewpoint when reporting about religion!

"More is better" is a common secular expression. It does not serve as a prudent form of medical advice. I have been increasingly skeptical about the application of aggressive treatment goals in geriatric patients, and my concerns may be justified by the findings in two recent landmark articles. The results of the ACCORD (Action to Control Cardiovascular Risk in Diabetes Mellitus) study were released in the April 29, 2010, issue of the *New England Journal of Medicine* ("Effects of Combination Lipid Therapy in Type 2 Diabetes Mellitus"). Specifically, the effects of intensive blood pressure control in patients with type 2 diabetes were studied in 4,733 participants with the disorder. Patients were randomized to an intensive systolic blood pressure goal of 122 mmHg or the lower standard goal of a systolic blood pressure less than 140 mmHg. The primary endpoints included nonfatal myocardial infarction, stroke, or death from vascular causes. The cohort of patients in the study was followed for nearly five years. Although a trend to serious adverse events perhaps attributable to the medications utilized was seen in the more intensive arm, more importantly no statistical benefit was achieved in terms of heart attack, stroke, or death. A similar outcome was found in the same issue of the journal when the ACCORD study group did not find the combination of two drugs to lower cholesterol beneficial ("Effects of Intensive Blood-Pressure Control in Type 2 Diabetes Mellitus"). These trial results should give clinicians pause before routine recommendation of more medications in patients with chronic diseases. Recent performance goals set for physicians may in fact be useless or burdensome and, in some scenarios, even harmful. This data, of course, needs to be balanced with prudential judgment. It would be unethical to try to achieve all performance goals for the sake of the clinicians' "scorecard," and not for patients' health.

Oral Contraceptives and Mortality Risks

The March 11, 2010, *British Medical Journal* featured a research piece titled "Mortality among Contraceptive Pill Users: Cohort Evidence from the Royal College of General Practitioners' Oral Contraceptive Study." In it, Phillip C. Hannaford and his colleagues presented a prospective cohort study initiated in 1968 with mortality data supplied by participating general practitioners, the National Health Service, and a central registry. In the study, 46,112 patients were observed for up to thirty-nine years and examined for the relative risks of mortality among users and nonusers of oral contraceptives. "Ever users" of oral contraceptives (those who used oral contraceptives at any time, and for any duration) had a lower rate of death from all malignancies (adjusted relative risk of 0.88) and circulatory diseases. They were noted to have a higher rate of violent deaths. No explanation was given as to that statistical finding. There was a trend to an increased relative risk of mortality from any cause for users of oral contraceptives in women under the age of forty-five who had stopped oral contraceptives in the prior five to nine years. The authors' final conclusion is that oral contraceptives did not increase long term risk of death, and overall benefits may be apparent in terms of malignancy protection. However, the authors point out that a particular patient's risk may depend on the pattern of oral contraceptive use and the underlying genetic predisposition. The risk, for instance, could be enhanced by tobacco use or genetic susceptibility to thromboembolic disease. It remains critical that physicians educate patients about the medical risk

of oral contraceptives. However, in a spirit of full disclosure, the spiritual and psychologic harm of separating the unitive and procreative aspects of the conjugal act far outweigh any perceived net health benefit.

Long-Term Effects of September 11 Attacks on Emergency Workers

The temporal effects of sin can linger indefinitely in the lives of those even remotely proximate to the evil propagated. The April 8, 2010, issue of the *New England Journal of Medicine* featured an article titled "Lung Function in Rescue Workers at the World Trade Center after Seven Years" (Thomas K. Aldrich et al.). The report stated that of the 13,954 New York fire department workers present at the World Trade Center between September 11 and September 24, 2001, approximately 92 percent participated in a study of pulmonary function. In the first year, the mean measurement of expiratory lung flow declined significantly for all workers but especially in fire fighters who never smoked. The proportion of workers who never smoked who had an expiratory flow rate below normal increased from 3 percent to 18 percent for fire fighters and from 12 percent to 22 percent for emergency medical service workers. The researchers concluded that exposure to World Trade Center dust had a significant effect on lung function and caused a decline in overall flow. This was especially true in the first year after the attack. The declines were found to be persistent, and therefore left a large proportion of workers with evidence of compromised lung function. In my own practice, I care for an elderly woman who volunteered to attend to the workers and survivors in the early days of the tragedy. She continues to be monitored periodically to document any detrimental physiologic effects from her exposure at the work site. Once again, evil action is pervasive in its effects, especially on those of the innocent. Similar medical and psychiatric injuries have also been found with other acts that violate the natural law including contraception, abortion, substance abuse, and all forms of violence and attacks on human dignity.

Religious Conflicts in Health Care Facilities

Debra D. Stulberg and her colleagues reported the results of a study titled "Religious Hospital and Primary Care Physicians: Conflicts over Policies for Patient Care" in the July 2010 issue of *Journal of General Internal Medicine*. A cross-sectional survey of 879 eligible physicians produced a response rate of 51 percent (446). The researchers were interested in how physicians responded to ethical conflicts with a religiously affiliated hospital and how often such conflicts occurred. Analysis revealed at 19 percent had experienced conflict over religiously held and documented hospital policies. A strong majority (86 percent) ascertained that when clinical judgment conflicts occur, physicians should refer the patient to another institution. Not surprisingly, older physicians and those more likely to attend religious services were less likely to experience conflict. Respondents with no religious affiliation were most likely to believe doctors should disregard religiously based policies if there were a conflict with clinical judgment. It seems clear to me that this study is likely related to Catholic health care institutions—a system which, at least in principle, sets out clear directives for moral medical care. In a positive light, it is reassuring to learn that a minority of primary physicians had experienced conflict. Is it possible the lack of adherence to the *Ethical and Religious Directives* by some Catholic institutions

reduces the cause for conflict?[1] A number of Catholic hospitals apparently do not strongly enforce the *Ethical and Religious Directives* they have been entrusted with. Perhaps in the future we can argue that a documented increase in ethical conflict would happily reflect a more robust Catholic network of hospitals trying to adhere to the lofty moral standards articulated in the *Ethical and Religious Directives*.

Corporal Punishment

Corporal punishment for children has been hotly debated for the last several decades. The merits and dangers of spanking have yet to be fully documented from a research perspective and understood in a systematic way. Earlier studies connected spanking to low IQ scores and behavior problems and also the subsequent risk of substance abuse and criminal behavior. The May 2010 issue of *Pediatrics* featured a research article by Catherine Taylor and associates which correlated spanking and aggressive behavior. Twenty-five hundred mothers were surveyed across the United States. Approximately half of the mothers never spanked their three-year-old children while 21.9 percent repeated one or two spanking episodes and 26.5 percent reported more than two spankings. In follow-up two years later, mothers who spanked their children with greater frequency reported higher levels of aggression in their five-year-old children. Behavior included screaming, fighting, destructive acts, and bullying. When statistically controlled for other variables such as mental illness, substance abuse, and family stress the findings still held true. There are some potential problems with the study. For instance, one can wonder about the genetic predisposition to certain behaviors and the sensitivity of the survey to pick up subtle family dynamics. Advocates for spanking may want outcomes to be measured further out in time. Of note, the American Academy of Pediatrics opposes striking children for any reason. Although I am empathetic to parents who are experiencing disciplinary problems, certainly it is well known that actions speak louder than words and the long term consequences may indeed be significant. Any act of significant violence toward a child may leave long term detrimental effects.

Surrogate Decision Making

How much indluence does a physician's assessment of the prognosis of a patient who is critically ill make on a surrogate's decision-making process? This question is addressed in the May 2010 issue of *Critical Care Medicine*. E. A. Boyd and colleagues explore this question in "It's not Just about What the Doctor Tells You: Factors that Influence Surrogate Decision Maker's Perception of Prognosis." In a perspective mixed-method study utilizing face-to-face interviews, the authors queried 179 surrogate decision makers for 142 patients who were incapacitated and critically ill in four intensive care units in the San Francisco Medical Center. The study occurred between 2006 and 2007. Only three of the 179 respondents stated that their beliefs on prognosis were exclusively based on the information communicated by the attending physician. The majority of surrogate decision-makers based

[1]U.S. Conference of Catholic Bishops, *Ethical and Religious Directives for Catholic Health Care Services*, 5th ed. (Washington, DC: USCCB, 2009).

their beliefs on prognosis and survival on the knowledge of the patient's strength of character and will to live, physical appearance, and actions noted at the bedside. Finally, the surrogate's own optimism, intuition, and faith were of critical importance. Most surrogates did attempt to balance their assessments with the physician's conveyance of clinical and physiologic facts. Clinician's knowledge of this process may help overcome conflicts engendered over prognosis discussions. Communication is foundational in terms of a skill set for physicians, but it is best served with a healthy dose of empathy. Despite medicine's historical reliance on science, when it comes to the case of individual patients, much more is required than knowing the X-ray and laboratory results.

Obesity-Related Illness

In prior reviews I have commented on the medical complications of obesity and the societal costs involved. The increasing prevalence of obesity-related liver disease has alarmed me in my own medical practice. Working at a liver transplant center, I have seen a number of patients with end-stage liver disease related to obesity and to the metabolic syndrome. Liver disease in obesity may progress from benign fatty depositions to an inflammatory condition and even fibrosis and cirrhosis. Therefore, it was with great interest that I reviewed a contribution to the *New England Journal of Medicine* titled "Pioglitazone, Vitamin E or Placebo for Nonalcoholic Steatohepatitis" (May 6, 2010). Two hundred and forty-seven patients with fatty liver disease with an associated inflammatory condition of steatohepatitis were divided into three study groups—one-third took the antidiabetic medication pioglitazone (insulin sensitizer), another third took vitamin E supplementation, and the final group took the placebo. Following biopsy at ninety-six weeks, the vitamin E group had improvement with liver histology (43 percent versus 19 percent), but the rate of improvement with pioglitazone was not statistically significant. Both treatment arms resulted in biochemical marker improvement but neither affected fibrosis scores. Vitamin E (800 units) does not require a prescription and would be an attractive treatment in this patient population. There were no significant side effects in any arm of the study. Of course, weight reduction and the avoidance of obesity would be the superior approach to this disease. One can now see how gluttony as a moral failure can lead to many negative downstream consequences. This of course is beyond its obvious spiritual harm. A diet of virtue would be preferable.

Doping in Sports

The desire to improve athletic performance has prompted many athletes to use various hormonal supplements and other enhancers of performance. Anti-doping advocates point out that such interventions make the playing field unfair and increase health risks of participants. A recent study funded by the World Anti-Doping Agency, titled "The Effects of Growth Hormone on Body Composition and Physical Performance in Recreational Athletes," appeared in the May 4, 2010, *Annals of Internal Medicine*. A randomized trial divided ninety-six trained athletes (sixty-three men and thirty-three women) into three cohorts—placebo, growth hormone given subcutaneously, and growth hormone combined with intramuscular testosterone. Body composition and physical performance were analyzed. Women were

excluded from the testosterone arm of the study. After analysis, growth hormone influenced body composition and increased sprint capacity as a marker of physical endurance. After discontinuation of the intervention, the effect on sprint capacity was lost within six weeks. The sample size was too small to draw any long term conclusions on safety.

The findings certainly are supported by physiologic plausibility, but do not reassure athletes about the long term risks. Perhaps more concerning is the exploding interest in medical treatments aimed at "transhumanism," a philosophical proposal that stresses the need to enhance the physical and mental capacity of humans beyond normal health. This could subsequently lead to a reversal of the aging process and perhaps put off death almost indefinitely. This philosophy has deeply secular roots and dangerously elevates human autonomy and the desires of man. It seems far too close to the idea of man, by his own effort, creating himself in God's image. This effort ultimately fails because it is intrinsically selfish in nature and devoid of humility.

Maternal Mortality

There was a recent controversy concerning the *Lancet*'s May 8, 2010, article, "Maternal Mortality for 181 Countries, 1980–2008: A Systematic Analysis of Progress toward the Millennium Development Goal 5" (M. C. Hogan et al.). The goal was set for a 75 percent reduction in maternal mortality between 1990 and 2015. The study revealed a significant reduction of maternal mortality in a number of developing countries. It was reported that a number of nongovernmental organizations were concerned that publication of the results would inhibit funding to projects to decrease maternal mortality. Unfortunately, many of these projects call for greater access to legalized abortion. Richard Horton, editor of the *Lancet* addressed this issue in his editorial "Maternal Mortality: Surprise, Hope and Urgent Action" in the same issue. Sadly, an effort to reduce maternal mortality which links advocacy groups to increasing legal access to abortion and contraception is a stark fact of the movement. Apparently such advocacy groups cannot see the sad irony of decreasing maternal mortality by a small percentage point but increasing prenatal mortality logistically.

With that in mind, I reviewed an article in *Reproductive Health* that analyzed post-abortive contraceptive choices in a family planning clinic in northern Brazil (A. L. Ferreira et al., "Choices on Contraceptive Methods in Post-Abortion Family Planning Clinic in the Northeast Brazil, May 10, 2010). Some facts in the article were striking. Most women undergoing abortion in the study were using contraception at the time of conception and nearly 27 percent have had a prior abortion. It was also reported that 52 percent of the pregnancies were unwanted. The authors clearly are supportive of both abortion and contraception and relate their availability to a reduction in maternal mortality. I reflected on the tragic fact that nearly half of the pregnancies would, by their definition, be classified as wanted—this in itself is a sad commentary. Are we to conclude that women aborted "wanted" children due to external pressures? Despite the documented knowledge of contraceptives and their utilization, the authors remarked that women used the contraceptives inconsistently or erroneously. They argued for more education for these women. I would strongly counter-argue that the family planning clinic failed its patients tremendously in not

educating them about their full feminine dignity, the dignity of their unborn children, and the beauty of sexual relations in the context of a loving marriage open to life. Maternal mortality should be reduced, but not at the expense of future generations of children and the violation of all that it means to be human.

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