

Medicine and Religion: A Clash of Ethics

Introduction

For many years, medicinal chemistry has served our society in profound ways. The pharmaceuticals that result from creative chemistry are diverse, ranging from antihistamines for relieving allergies to psychoactive drugs for mental health. In extreme cases, pharmaceuticals are used to delay early death, or to induce painless death. It may not come as a surprise, then, that some people think of pharmaceutical technology as harmful. Besides the usual homeopaths* and health enthusiasts, there are also religious groups who instruct their members to reject science's "unnatural" substances in favor of other healing methods. These methods typically belong to the healing practice known as *alternative medicine*†, which is based on tradition rather than science. The branches of alternative medicine commonly use herbs, dietary supplements, and other natural remedies, and may also involve prayers and rituals.

The belief that prayer and natural remedies are enough to treat life-threatening illnesses is troubling because (1) is it unclear whether religious rejection of medicine is protected by the first amendment, and (2) families that believe in alternative medicine are at a stand-off with the state's duty to care for its children¹. One might be tempted to say, "Live and let live," but it is not that simple when it comes to children from faith-healing groups who suffer from treatable illnesses. How can one "live and let live" when the child may not live? Parents who use alternative medicine and fail are charged with mistreatment or neglect², even when they are genuinely trying to save their children. Advances in pharmaceutical chemistry do not simply

* A homeopath is a person who believes in homeopathy, a branch of alternative medicine that uses highly diluted herbal solutions. Although controversial, most scientists claim that homeopathic products are no more effective than placebos.¹⁸

† Alternative medicine may also be practiced without religious incentives.

affect health; they also create legal implications for religious groups, and challenge some of our most basic moral principles.

To illustrate how medicinal chemistry affects the ethics of treatment-refusal by parents, we describe two very different cases where families have risked the lives of their children by adhering to their religious beliefs. Both cases concern common diseases that are now curable thanks to impressive advances in medicinal chemistry.

Case I: Pneumonia and Sepsis

Pneumonia is a serious lung infection that appears in three main forms: viral pneumonia, fungal pneumonia, and most commonly, *bacterial pneumonia*³. The two strands of bacteria responsible for most cases of pneumonia were identified in the 1880s, shortly after the germ theory of disease became widely accepted⁴. However, antibiotics were not yet discovered, and the death rate from pneumonia was much higher than it is today. When pneumonia remains untreated and is left to run its course, the bacteria can enter and infect the blood, resulting in *sepsis*.^{3,5} Sepsis, characterized by bacterial blood infection and full-body inflammation⁶, is more deadly than pneumonia. Sepsis was thought for a long time to be caused by putrefaction (decay), and the connection between bacteria and sepsis was not made until 1914.⁷ Fourteen years later, Alexander Fleming discovered the world's first antibiotic, penicillin, which finally became available in the 1940s⁷.

With the development of antibiotics, the chances of dying from pneumonia fell from one-in-three to one-in-twenty³. Although the death rate of sepsis also improved, it is still quite high. Unfortunately, this death rate is difficult to quantify because some sepsis-caused deaths are reported as caused by pneumonia⁵. However, it is estimated that "Sepsis kills nearly half of the patients in intensive care units and several more who do not reach hospital."⁵ Those who survive sepsis may also suffer from permanent organ damage.⁶

In March 2008, a 15-month-old girl named Ava Worthington died from bacterial bronchial pneumonia and sepsis². Her parents, who did not allow Ava to take antibiotics to cure her pneumonia or sepsis, were charged by the state of Oregon with criminal mistreatment². Ava's father, Carl Worthington, was sentenced to two months in jail with a five-year probation on the condition that he seek medical intervention when his 5-year-old daughter and newborn daughter require it. Unlike most children, Ava had never received any form of medical treatment during her lifetime because her parents are members of Followers of Christ Church, known for their practice of faith-healing². As a Christian denomination, they believe in the literal interpretation of the bible; seeking medical care is a violation of their doctrine. The most frequently cited passage in support of faith healing is the Epistle of James 5:14-15².

Is any among you sick? Let him call for the elders of the church, and let them pray over him, anointing him with oil in the name of the Lord; and the prayer of faith will save the sick man, and the Lord will raise him up; and if he has committed sins, he will be forgiven.

As of June 2011, religious beliefs may no longer serve as an acceptable defense for homicide in the state of Oregon⁸. Parents who refuse to seek medical care for their children based on religious beliefs are now vulnerable to charges more serious than criminal mistreatment or neglect. Nevertheless, the state of Oregon still encounters cases of religion-based medical neglect cases to this day, as shown by the death of 16-year-old Austin Sprout.⁹ His illness remains undisclosed, but after a medical examination confirmed that it was treatable, Austin's parents were charged with second-degree manslaughter. Their local community is generally displeased with the charges, arguing that his parents are good people who should not be in jail, and that the new state law violates their freedom of religion.⁹

Case II: Hodgkin's Lymphoma (Cancer)

Hodgkin's lymphoma, also referred to as Hodgkin's disease, is a form of cancer that affects lymph tissue. It usually first appears in the lymph nodes and, given the opportunity, can spread to other nodes and organs, such as the spleen¹⁰. Hodgkin's lymphoma is a unique form of cancer because it is curable, even in its more advanced stages¹¹. While other forms of curable cancer exist in addition to Hodgkin's lymphoma, most of them cannot be effectively treated in their later stages. Also unlike other forms of cancer, Hodgkin's lymphoma is rarely addressed surgically; it is usually treated with chemotherapy or radiation therapy¹¹.

Many people are surprised to learn that some cancers are curable. This surprise follows from the Hippocratic view that cancer is a non-curable disease¹¹. The persistence of this view may have been responsible for the lack of cancer-treatment research prior to World War II (1939-1945). The first chemicals discovered to have cancer-fighting abilities were nitrogen mustards[‡], ironically produced for chemical warfare. In 1942, nitrogen mustards were tested on patients with advanced lymphoma¹². The patients who were treated with nitrogen mustards still died from lymphoma, but they died later than patients who did not receive treatment. This observation led to further development in cancer research that resulted in new classes of chemotherapy, including alkylating agents, antimetabolites, mitotic inhibitors, and corticosteroids¹². With these advancements, long-term remission for Hodgkin's disease was reported as "early" as the 1960s¹²

Today, over 90% of those who receive treatment for early stages of Hodgkin's lymphoma survive for at least ten years, and over 90% of people who are treated for more advanced stages of Hodgkin's lymphoma survive for at least five years¹¹. The effectiveness of chemotherapy for

[‡] Nitrogen mustards have the chemical formula $R-N(CH_2CH_2Cl)_2$.¹⁹ They are structurally similar to mustard gas (bis(2-chloroethyl) sulfide). For example, tris(3-chloroethyl)amine is a type of nitrogen mustard.

Hodgkin's lymphoma is due to the development of *many* cancer-fighting chemicals; Hodgkin's lymphoma responds best to combination chemotherapy, which uses drugs from different classes concurrently as part of a standard regimen¹². Thus, treatment refusal for Hodgkin's lymphoma is not simply the rejection of one pharmaceutical, but of a host of pharmaceuticals.

In January 2009, Daniel Hauser, 13, was diagnosed with Hodgkin's lymphoma. After receiving a round of chemotherapy and experiencing its negative side effects, Daniel was immediately directed by his mother, Colleen, to begin a healing regimen consisting of herbs, vitamins, and ionized water^{§.1}. While it is possible for untreated tumors to go spontaneously into remission¹³, it has not been shown to occur in those with Hodgkin's lymphoma. Thus, Colleen was risking her son's 90% chance of 10-year remission by favoring a less aggressive but unsupported treatment method. In May 2009, Daniel was given a court-ordered X-ray that revealed that his tumor had grown. Daniel was then ordered by the court to receive chemotherapy and radiation treatment¹⁴. Consequently, Daniel and Colleen fled from their Minnesota home, bound for Mexico¹.

Most people would agree that the side-effects of chemotherapy are not trivial, but the Hauser family's response to its effects was out of the ordinary. Normally, cancer patients are willing to accept the drawbacks of chemotherapy, especially if the cancer is in a highly-curable form like Hodgkin's lymphoma. The Hausers, however, follow a "do no harm" philosophy of natural healing¹. Although they are Roman Catholics, their alternative approach to medicine was largely influenced by the advice from members of the Nemenhah community¹⁵.

[§] Ionized water, or alkaline water, is used in some branches of alternative medicine to improve general health. Water ionizers produce alkaline water by electrolysis and charge separation²⁰. Proponents claim that ionized water's high pH helps to flush the body's acidic waste, and that its hexagonal structure enhances absorption of water molecules. However, there is no evidence that alkaline solutions improve health upon consumption, and the hexagonal structure of water has only been shown to exist in the solid phase.

The Nemenhah Indigenous Traditional Organization is a Native-American spiritual establishment, also self-defined as an “Inter-Tribal and Inter-Discipline Convocation of Healers.”¹⁵ On their website, they claim that their mission is to restore the sacredness involved in natural healing. The organization also practices “spiritual adoptions,” and openly invites anyone who will “publically declare that Natural Healing comprises part of your Spiritual Orientation, and that you will First Do No Harm, and that you will work to further the work of perfecting and unifying the Nemenhah and the fulling [sic] of its mission.”¹⁶

A week after their disappearance, Colleen returned home with Daniel to avoid jeopardizing custody of her son. Daniel’s parents complied with the court to give him at least five rounds of chemotherapy and radiation.¹⁴ One year later, Fox News celebrated Daniel’s 14th birthday by showing a film of his last round of chemo, adding that his cancer was in remission¹⁷. However, during their phone interview, Colleen implied that she still believed that giving Daniel chemotherapy was not the right thing to do¹⁷.

Discussion

At first glance, one might conclude that parents who refuse healthcare for their children are simply letting them die for the sake of religion. To revisit Ava’s case, if her parents had sought early medical care, her chances of surviving pneumonia would have been 95%. But without antibiotics, her probability of living was only about 70%³. Regrettably, she developed sepsis from her untreated pneumonic state. Without antibiotics and intense medical care, the odds of surviving such a critical condition are nearly zero.

Choosing to put one’s child’s life at high risk goes against our understanding of familial love. It seems remarkable that parents are able to come to terms with a decision that decreases their children’s odds of survival from 95 to nearly 0%. Dr. Courtney Campbell, Professor of

Religion and Culture at Oregon State University, explains how parents cope with their child's loss:

What sustains the parents through the loss, not to mention any subsequent legal proceedings, is the unshakeable conviction of having performed the right action, of compliance with the perceived divine command, irrespective of the outcome. This is a manifestation of the theodicy of inscrutability, but in some instances, it may be supplemented by the consolation of a joyous afterlife for the child—and presumably the parents—for their faithful submission to the divine will.²

Religious parents, regardless of their belief in natural healing, are understandably more concerned with their children's eternal lives than their short lives on Earth. Additionally, they do not perceive their religious compliance to be a 95-to-near-0% decision when (a) there is always a nonzero chance that a miracle will save their child's life, and (b) they are bolstering their child's odds of achieving eternal paradise (not to mention their own).

One must also realize that faith-healing parents are not inactively watching the progression of their child's demise. They still play an active role in caring and praying for their child. Revisiting Daniel's case, Coleen was clearly employing multiple techniques of alternative medicine to save her son – including the expensive and hyped-up realm of ionized water. Although there is no evidence to support that herbs are effective for cancer treatment, her response would have been the first course of action if chemotherapy were not yet available. However, Coleen's actions appeared neglectful in the eyes of the law due to the availability of cancer-fighting drugs.

Although the United States proudly celebrates religious and parental freedom, we tend to do so with sobriety. When parents choose to ignore chemical technology and attempt other means to save their children's lives, they are perceived as defying the prevailing community's

interests, and thus face legal sanctioning. Although their actions might have been fitting in an earlier era, many judges believe the law must be consistent with the contemporary perspective, which includes new scientific knowledge. While medicinal chemistry enables us to save lives, they also narrow the space for faith-healing families, thus creating yet another arena where Church and State collide.

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¹⁵ Nemenhah Indigenous Traditional Organization. "Offering". <<http://www.nemenhah.org/internal/offering.html>>

¹⁶ Nemenhah Indigenous Traditional Organization. "About Us". <http://www.nemenhah.org/internal/about_us.html>

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