HISTORICAL PERSPECTIVE

Yellow Fever and the Emotional Consequences of Untreatable Epidemic Disease

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ABSTRACT

Yellow fever terrorized communities in tropical and urban settings during its height in the nineteenth century American South. Carried by Aedes aegypti mosquitoes that breed in stagnant water collections, the virus infects humans with fervor and is most known for its symptoms of jaundice and vomito negro, a dark vomit of coagulated blood. During the near-annual outbreaks of yellow fever, caregivers struggled to cope with the emotional consequences of failing medicine, sometimes leaving behind clues to their confusion in treating the disease and offering salient reflections on their inadequacies. As the disease ravaged through the Gulf region for decades, health worker futility can be traced to questions of what to do for others and what to do for oneself, offering a new perspective in yellow fever scholarship and insight to contemporary clinical practice and research.

INTRODUCTION

Epidemic diseases often arise quickly, infect indiscriminately, and frustratingly persist. Once present, epidemic diseases can exist for years as untreatable medical and scientific quandaries. These threats to health may eventually be overcome, but only after years of scientific research, evolutions in disease theory, successful experimental therapeutics, and effective distribution of curatives. The process is long and formidable.

Layered within the progress toward scientific understanding of diseases, particularly epidemic diseases that strike quickly and seasonally like yellow fever, endures a period of confusion and trepidation before disease resolution. Self-doubt, fear, and anxiety surface as mortality mounts. Evidence for these emotional reactions is often minimal, hidden by the guise of emotional detachment demanded by the medical profession. Acknowledgements of medical, and sometimes personal, inadequacy are instead concepts inferred from the words of social scientists and medical historians; ideas scholars seem aware of, but ones that remain seldom expanded upon or categorically defined.

Uncovering lost voices of workplace distress is a difficult task and requires significant good fortune by the researcher. Stumbling across emotionally expansive letters or articles is not a common occurrence when scouring early scientific literature and medical reports. But once discovered, salient remarks or pensive anecdotes can be carefully unveiled to offer a more complete understanding of an epidemic event or time period. Through close analysis, previously superficial knowledge about the emotional consequences of a disease takes on a new, personalized dimension, which enables a stronger connection between subject and observer. For
the clinician or scientist today, historical contemplations may moderate diffuse notions of disappointment to combat disease. Further, such analysis of the past may remove anxieties of failure, as many can be shown to have failed before, thereby motivating innovative research unencumbered by apprehension.

Yellow fever has captivated social scientists for years, and yet the existing literature has not yet characterized the disease’s emotional consequences on workers from the frontlines of disease control and treatment. Instead, the malady has inspired extensive scholarship by historians interested in early public health movements that arose from the epidemic, the economic consequences of seasonal quarantine and city center shutdown to limit its spread, and how the rampaging disease shaped regional identities in warm-weathered locations across the world (Humphreys, 1992; Bloom, 1993; Carrigan, 1994; Nuwer, 2009). To contribute to the existing knowledge of yellow fever’s impact on the American South and to communicate to clinicians and scientists the importance of historical reflection, a story on the emotional consequences of an untreatable epidemic disease will follow.

Known as yellow Jack or bronze John by those it afflicted and those who have studied it, yellow fever terrorized communities in tropical and urban settings during its height. *Aedes aegypti* mosquitoes carry a virus that causes the disease and breed in stagnant water collections, which were abundant in industrializing areas. A single bite transmits the virus to humans, initiating a gruesome infection. Hallmark symptoms include yellowing of the skin and eyes, known as jaundice, and expulsions of coagulated blood or vomito negro (“black vomit” in Spanish). The details of transmission went unknown to observers of the disease in the 1800s, as germ theory conceptualizations were novel and poorly received by the scientific community until the early nineteenth century. Instead, the physical costs of the disease made it famous, as did its near annual arrival in the summer months in cities like Rio de Janeiro, Havana, New Orleans, and Memphis.

Throughout the American South, caregivers of all kinds struggled to cope with the inability to predictably treat yellow fever patients. Unsuccessful treatments preceded patient deaths, and successful treatments were uncommon and inconsistent. One physician who observed emotional turmoil in the face of widespread medical failure was Dr. William Armstrong, who worked for the Howard Association. Letters to his wife, whom he pushed to flee to Columbia, Tennessee during the epidemic, reveal his frustrated yet steadfast sentiments about the disappointing efforts he and his colleagues directed. Though despondent, the physician’s words also reflect an obvious commitment to fight yellow Jack. At once, his words are both depressed and determined: “I feel sometimes as if my hands were crossed and tied and that I am good for nothing, death coming in upon the sick in spite of all that I can do” (Crosby, 2006). Armstrong’s expressions of futility and fortitude exemplify a faction of thoughtful caregivers who have left behind a trail of personal letters and professional documents that describe resolute but ineffective medical efforts. It is these caregivers, like Armstrong, who speak for others that did not express or could not admit the imperfections of their treatments and the challenges of their work.

The pervading futility in Armstrong’s words communicates, but alone does not completely characterize, the futility felt by some caregivers in yellow fever epidemics throughout the second half of the nineteenth century. More accurately, these reactions occurred on two levels: what to do for others and what to do for oneself. The first level is characterized by the use of different treatments, each with uncertain therapeutic value. The second evokes a generalized and diffuse sense of helplessness made up of fear, isolation, and loss of faith in cures. Together, these responses complicated the efforts of healers to treat yellow fever and further weakened an already fragile medical and regional community.
For today’s physician, nurse, health worker or scientist, the story of these century-old epidemics should offer solace to the overworked, and recuperation to the distressed. Tales of pain, failure, and inadequacy are not new developments confined to the trappings of the modern healthcare system; rather, they are recurring themes for those faced with, and called to prevent, disease and death.

THE QUESTION OF TREATMENT: WHAT TO DO FOR OTHERS

In 1878, a Kentucky physician by the name of J. P. Dromgoole compiled a lengthy book cataloging the many opinions of physicians in response to the 1878 yellow fever epidemics. That year, according to one tally, twenty thousand lives were taken at the hands of the disease (Cirillo, 2010). Dromgoole’s work *Heroes, Honors, and Horrors* now stands as a collection of caregiver practices and contemplations, a comprehensive compilation of medical workers’ experiences during the outbreak. The purpose of the book, according to the author’s dedication, was to honor the “clergymen, physicians, and nurses who, in the hour of need, rushed to the relief of suffering fellow-men.” Doing so, it consists of a litany of articles, letters, and biographies of those heroes as they strove to permanently rid the United States of yellow fever. Consequently, the work captures much of the uncertainty of the yellow fever epidemic through Dromgoole’s assemblage of published yellow fever documents and contextual analysis. Moreover, the book signifies how healers focused on therapeutics rather than disease etiology during the yellow fever outbreaks.

To Southern scientists and physicians, disease prevalence was a consequence of the region’s climate, germs, and Caribbean trade. Indeed, the South seemed a particularly maligned place in the nineteenth century. During the years 1863-1883, roughly 6,500 New Orleans residents died of smallpox. In 1850, 47.5 out of 1,000 deaths in the United States resulted from malarial fevers, many of which occurred in the South; there, warm, wet summers helped fuel mosquito reproduction (Hong, 2007). Yellow fever made the most impressive mark throughout the century with frequent but inconsistent large-scale epidemics resulting in 41,000 deaths in New Orleans alone from 1817-1900 (Louisiana Division New Orleans Public Library, 2003). The high disease frequency and death tolls guided Southern scientists to develop a regionally exclusive perspective of disease and treatment.

Constantly plagued by warm temperature maladies like yellow fever, nineteenth century physicians and scientists in the South had historically designated their region medically distinctive, a philosophy in which regionally-specific diseases required unique treatments. A concept created by Southern physicians, medical distinctiveness claimed that regional factors such as climate, economics, and, in part, racial demographics made the South a breeding ground for anomalous maladies (Leavitt and Numbers, 1978; Savitt and Young, 1988; Stowe, 2004). Amongst the sections in Dromgoole’s *Heroes* that address the “Tidal Wave of Death and Destruction,” or “Historical Sketches of Each Afflicted Locality,” the first chapter importantly discussed yellow fever symptoms, treatments, and explanations. Understanding the rationale and tactics for Southern medical distinctiveness allows for a closer examination of Dr. Dromgoole’s book and the treatments it catalogues.

Southern medical specialization started with Southern medical education. Disease in the South demanded regional medicine, according to experts at the time, and that way of thinking shaped the mind of the local physician. Despite opportunities elsewhere, students tended to seek education from local institutions. One student chose to study in Charleston because, “we know better, here, how to manage Carolina constitutions than the Physicians of Philadelphia,” (Warner, 1989). In this case, “constitutions” referred to disease embodiments, with the student alluding to
his desire to train in the South in order to effectively and successfully practice in the South. Similarly, the reference to Philadelphia refers to the renown of medical centers in the Pennsylvania city; the city hosted the nation’s first public hospital and medical school, making the College of Physicians in Philadelphia one of the most respected medical centers at the time. The outspoken student’s father, also a physician, echoed similar themes in a subsequent letter, claiming the climate, miasmatic exhalations, diet, dress, work habits, and social structure altered the symptoms of diseases and appropriate therapeutics in ways not understood by non-natives. Using this family as a template, a region-focused medical dogma drove practitioners to train indigenously.

Expressions of medical distinctiveness took several forms, one being an ongoing discourse between the South and North regarding the validity of the concept. As Southern scientists proclaimed themselves specialized to the South’s exceptional scientific needs, Northerners argued to the contrary. Northern scientists and physicians used recurring disease and high disease mortality, like incessant and deadly yellow fever outbreaks, to claim that the South’s undeveloped backwoods and dirty cities predisposed Southerners to disease, making Southern ‘experts’ merely unaware promoters of their own region’s ill-health. Those in the South responded passionately, claiming these critics were unfamiliar with the dangers of Southern maladies and therefore unfit to judge the Southern plight.

So sure of his regional expertise and the inability of Northerner’s to survive the yellow fever season in Tennessee, the president of the Memphis Board of Health turned away volunteers from the North in 1878, the deadliest epidemic year in the Mississippi Valley (Crosby, 2006). The primary motive, according to one commentator, was to limit the strain on the Memphis caregivers during an epidemic in which 17,000 of the city’s citizens became infected; Memphis needed better help and fewer casualties, not an influx of unprepared and unspecialized physicians and nurses (Crosby, 2006). This example shows how those in the South existed in an environment of entrenched exceptionalist medicine and science, due in part to a South-North debate, and acted accordingly.

Others proved medical distinctiveness by actively recruiting local health workers during the epidemics. The Howard Association, a charitable organization founded by British philanthropist John Howard, implanted itself in the Gulf Coast region during its nineteenth century battles with yellow Jack (Newsome, 1992). Besides sprouting infirmaries, hospitals, orphan asylums, and fund raising efforts across the afflicted states, the Howard Association often helped promote regional health cooperation. In 1878, a period when Houston was not affected by yellow fever, a Howard nurse by the name of Kezia Payne DePelchin answered a Memphis call for nurses. She proceeded to Tennessee to aid her fellow Southerners and offer her medical expertise. Trained in the South and familiar with yellow fever through Houston’s frequent bouts of the disease, nurse DePelchin embodied the kind of local proficiency preferred during yellow fever epidemics.

Though self-proclaimed as medically distinct, Southern health workers lacked uniformity in their practice, often prescribing conflicting treatments in line with their personal experiences. In general, the treatments fell into one of four categories: hydropathic, homeopathic, botanic, or orthodox. Hydropathy utilized water as an internal and external healing factor, applying large and small amounts as the situation necessitated. Homeopathy focused on the natural ability of the human body to fight disease and employed diluted medicines for further benefit. Botany relied on herbs and plant-based concoctions for patient recovery. Orthodox medicine used drugs and substances like quinine, calomel, teas, alcohols, opium, and blood-letting to alleviate the suffering of the sick (Humphreys, 1992; Bloom, 1993; Carrigan, 2006). Often, a practitioner’s methods did not exclude any one of these treatments. In fact, the therapeutics offered by medical workers
ranged widely, as no treatment proved predictably superior to another. The blending of treatment techniques allowed for much experimentation, though variance in treatment failed to significantly improve patient prognosis.

A snapshot of the treatments used by caregivers in Dr. Dromgoole’s *Heroes, Honors, and Horrors* reveals the diversity of the treatments given to patients and how unanimous treatment hardly existed, despite the medical community’s widespread acceptance of regional distinctiveness. One physician described a Creole Treatment he administered; the name saluted the French Louisiana region, and the treatment called for an eleven step plan that included dosages of castor oil, hot footbaths, sponge baths, injections of laudanum, watermelon-seed teas, cool cloths on the head of the patient, chicken broth, and the ordinance that the patient not be allowed to sit up for a week (Dromgoole, 1879). Detailed treatments, as exhibited by the Creole Treatment, were common but alarmingly unique to each physician’s clinical experience. Another doctor recommended a Calomel Remedy, which combined footbaths and chicken or beef broth. Yet one more recalled how he made a complete recovery from a bout of yellow fever by drinking ice water, bathing in ice, and resting (Dromgoole, 1879). Among other remedies, footbaths and broths were recurrent themes in patient treatment despite varied interpretations and applications of them by physicians, leaving no distinct and unanimous treatment.

The common traits in the Creole Treatment, Calomel Remedy, and ice treatments nearly connote a level of consistency in fever treatment for their shared use of broths and baths as hydropathic remedies. However, other suggested solutions took entirely opposite stances, indicating the depth of the issue of practically and predictably resolving yellow fever. In contrast to the ice treatment, for example, a nurse by the name of Mrs. Jane Swisshelm claimed ice was detrimental to some patients and likely even accelerated death by reducing the patients’ body temperatures too severely (Dromgoole, 1879). She argued that warm water opened the pores of the patients and drew out the poison of the fever contained inside the patients’ bodies, allowing for timely and safe recovery. To support her claim, she referenced conversations she had with “prominent doctors in this country” and the case of a military officer who self-administered the warm water treatment and overcame the malady (Dromgoole, 1879). Mrs. Swisshelm exemplifies a common trend among healers: their unshaking confidence despite high variance within the field. Her self-confidence, as well as the criticism she offered to different techniques, speaks to the inconsistency in fever treatment and, by extension, the breadth of the yellow fever problem. As confusion reigned supreme due to high variation in treatment approaches and resultant caregiver confidence, clashes within the medical community surfaced.

Professional healers were not the only group promising therapy. Lay-healers commonly applied home remedies to loved ones, further complicating fever treatment as a malady broached by many but solved by none. As with professionals, these caregivers used a variety of techniques to treat yellow fever patients with enough success to give them a superficial confidence in their approaches. The general inefficacy of home remedies, despite their widespread utilization, demonstrates how no efforts to control yellow fever succeeded. Imagine then, the frustration of locally trained caregivers using nearly every conceivable treatment to resolve the relentless outbreaks, continuing to disappoint themselves and, more importantly, their patients. This frustration immersed the entire Gulf Coast region, linking distinct locales together in their struggle for reprieve.

Giving credence to the embattlement of caregivers and laypeople treating yellow fever, nurse DePelchin described Dr. Dromgoole’s work as a nearly encyclopedic source for fever treatment options. During her stay in the Mississippi Valley region, she wrote extensive letters to her sister. The letters continued after the end of the epidemic, and one written March 1, 1879 directly
validated *Heroes, Honors, and Horrors* as a compilation of approaches to fever treatment and the related disappointments. In her words, the book served as a “very good illustration of the various ideas that prevailed and which nearly all failed,” (DePelchin, 1879). Seemingly prompted by the book, she offered a lengthy description of the varied treatments for fever patients at different points during the illness that she had witnessed in her time as a Howard nurse. Her treatments closely mirror the plethora of treatment routes that existed. DePelchin’s invaluable letters frame Dr. Dromgoole’s *Heroes* as a respected summary of yellow fever treatments and as an embodiment of their ineffectiveness.

In total, the wide variety and promised quality of individual fever remedies intensified the treatment question. As Dr. Dromgoole’s *Heroes* showed, little was agreed upon by scientists, and when agreement was reached, as on the use of water as a curative, the details remained highly disputed (e.g. the temperature of the water). Resultantly, yellow fever thrived during an era of much confusion for Southern caregivers. Disappointment would result and affect the caregiver in distinct ways.

FEAR, LOSS OF FAITH IN CURES, AND ISOLATION: WHAT TO DO FOR ONESELF

From the wreckage of the yellow fever epidemics of the nineteenth century emerges a previously unstudied notion of professional futility in yellow fever medicine. Personal reflections and articles written by medical workers in response to their failures to remedy yellow fever suggest a group of cognizant but helpless medical workers existed. These reflections fall into one of three categories: fear, isolation, and loss of faith in prescribed treatments. Sentient contemplations made by caregivers show how the shared dilemma of yellow fever in the American South affected the medical community, despite notions of regional exceptionalism and local medical talent. Further, as some medical workers turned to religion for support, yellow fever appeared as a malady uncontrollable by man.

One of the most deadly yellow fever epidemics to hit Galveston, Texas left behind a fearful story of physicians realizing and understanding their mortality. The year was 1867, and amidst the climbing death tolls that eventually took nearly one of every four citizens of the port city, a doctor by the name of George Taylor became one of the many who sacrificed his life for the benefit of others (Ratchford, 1945). In letters to his wife, whom he left behind to work in Galveston, fear pervaded his thoughts. Mundane nuances of his daily routine and saddened longing for his wife were overcome by recounted conversations with his peers that centered on trepidation toward the onslaught of another fever season. Taylor notes how once-confident caregivers shrank under the realities of an underestimated epidemic, writing, “men who talked very loudly and fearlessly when they did not believe there was any [fever] here, are now frightened out of their wits.” In Galveston that year, Dr. George Taylor died alongside several companions in the fight against yellow fever. Mortality, described as a slowly recognized reality by a martyred doctor in 1867, raised the stakes of fever treatment and frightened otherwise confident medical workers.

Mortality of medical workers due to bronze John has been widely characterized by historians and contemporary health workers. Of the three thousand Howard Association nurses in the 1878 fever epidemic, one-third died. Of 111 Howard doctors, 54 contracted the fever and 33 died (Crosby, 2006). Further, Dr. Dromgoole offers a three-page, four-column list of all the physicians, military personnel, and reverends who died serving fever patients in 1878 across the nation, a list to which DePelchin added another five with whom she had direct contact (DePelchin, 1879). The sheer magnitude of the caregiver mortality described by these sources, totaling approximately 350 in 1878, illuminates the cost of failed treatment on all people in the region, regardless of medical training.
As caregivers faced death in their work environment, the reality of their inadequacies as healers of both patient and peer became more pronounced. Nurse DePelchin experienced persistent feelings of inadequacy as she aided physicians in the fight against yellow fever. In letters written to her sister, references to these sentiments abound. In one letter, she described the difficulty of her work and the emptiness of failing to save a dying patient. Addressing her attending physician, she asked, “What makes me so unlucky?” He replied appropriately, considering the glum realities of caregiver success rates for ill patients, saying, “This fever baffles and staggers the wisest” (DePelchin, 1878). Referred to modestly by the attending physician, the daily mortality faced by caregivers pushed them beyond the science they understood and the treatment they administered. Consequently, caregivers exhibited loss of faith in the existing, and often conflicting, treatments.

Some caregivers addressed their inadequacy directly. Prominent New Orleans physician Joseph Jones criticized the unconfirmed reliance on the medical treatments of yellow fever prevention by arguing others had simply not admitted the truth of limitations on medical knowledge of the fever. Reaching his breaking point, Jones declared, “I am thoroughly convinced that we have discovered no antidote or abortive treatment for the disease, and since I have abandoned the use of powerful remedies” (Jones, 1879). By abandoning the standard remedies and acknowledging the lack of antidote for yellow fever, Jones boldly suggested a precise distrust of his own medical efforts to eliminate the disease. He was not the only one to do so. A Little Rock physician similarly proclaimed his distaste for existing remedies and professed, “I have learned a great deal about the fever since it broke out here, and have found that in every case patients do better without medicine,” (Dromgoole, 1879). Physicians who publicly disowned available fever therapies represent an important faction of caregivers that refused available methods, finding them unreliable. Their lack of faith in existing remedies goes hand-in-hand with the fear caused by unyielding seasonal bouts of the malady and the realities of patient and caregiver mortality.

While some lamented their failures in personal reflections, others instead opted to risk their lives to find a cure by self-medication and infection. These individuals performed experiments they believed to be beneficial to the medical community and sought to uncover the causative factors of the disease and better understand its operations. Their audacity complements a loss of faith in existing remedies. Two circumstances of self-experimentation come from the notes of New Orleans physicians, James Carroll and Alcé Chastant. According to Carroll, a medical student in Pennsylvania, perhaps eager to resolve a disease Southerners could not, experimented on himself by placing fresh black vomit and blood serum obtained from yellow fever patients into wounds made in his arms and legs. The student also inhaled the fumes from black vomit and made black vomit into pills and swallowed them (Carroll, 1905). In Chastant’s case, a fellow physician also applied black vomit to the surface of a cut made on his arm, swallowed a quantity of the substance, inhaled fumes obtained by evaporation of the matter, and also inserted an amount into his eyes. Such self-experimentation, however laudable, further designates yellow fever caregivers as a group desperate for a cure. Though the experimenters’ precise motivations are not clear, the grim realities of mortality and unsuccessful treatments likely played a role.

Faithlessness in existing caregiver remedies opened discussion of yellow fever as self-limiting, a concept that communicated personal defeat for scientists and healers amidst continued patient deaths. Dr. Samuel Choppin of New Orleans once admitted that no limits placed on the disease by humans could prevent the disease’s transmission or course. Arguing the medical community could do nothing to reduce the impact of the disease, Choppin said, “we are at a loss to know how to check the ravages of the fever when it attacks the human body” (Dromgoole, 1879). Pessimism from lost faith pervaded the minds of prominent physicians like Choppin in their efforts to check the onslaught of disease. Remarking how little done by caregivers improved likelihood of
survival, DePelchin once compared the unchecked rampage of yellow fever to that of a tornado sweeping through a beautiful town (DePelchin, 1878). A fine comparison, the image of a tornado ravaging the town aptly evokes the unbridled and uncontrollable havoc caused by yellow Jack. For medical workers during the summer months, resolving the yellow fever dilemma in the South may have appeared as fruitless an endeavor as attempting to stop a tornado.

A supplementary problem to the futility of some caregivers in the late nineteenth century, isolation was not fueled solely by failed medical experiments and remedy applications. Rather, the realities of patient care and the likelihood of death for these caregivers facilitated a sense of loneliness. Although a plethora of forums existed to discuss general understandings, treatments, and yellow fever policies, medical workers suffered from solitude as their work created and, in fact, demanded, emotional detachment. Few answered the call to tackle the dilemma on the front lines. Those who did witnessed unchecked disease fatality. For the caregiver in this setting, failure left him or her psychologically vulnerable to solitude from detachment and physically vulnerable as their peers perished. This isolation fueled a reliance on religion for some caregivers, with God being the only reliable source for comfort.

Understanding the caregivers’ isolation starts with understanding the level of exertion their work demanded. Forced to see over one hundred patients a day in some cases, doctors in the plagued city centers frequently surpassed their requisite duties to ease the suffering on the populace. Others simply heard begs and pleas of the ill as they passed from house to house but were forced to continue onward, answering the house calls of awaiting appointments. Spending nights in a row without sleeping or eating affected the minds of the patient as much as the bedside caregivers; as the illness set in, it caused irritability and restlessness, a combination that often turned maniacal and demanded much attention, refusing caregivers any respite (Crosby, 2006).

Understaffed and over-extended, yellow fever caregivers suffered from widespread physical and mental dilapidation, enhancing the emotional fragility of these workers. Forced sometimes to personally bury their patients due to poor funding and high mortality, particularly in smaller towns, a sense of callousness developed among caregivers. The nurse Kezia DePelchin described her experience of having to bury several children in Senatobia, Mississippi as one from which she initially demurred, but to which she eventually became desensitized (DePelchin, 1878). In this case, detachment from the compassion of death, particularly for a very emotionally aware woman like DePelchin (as seen through her insightful letters to her sister), proves the detriment of continuous, failed efforts to save patients. Futility caused her continuous emotional strain and altered her perspective of the dying. The work, damaging and unrelenting, siloed DePelchin into a world of complex emotions where endless strain fueled an opposite, but requisite, detachment.

On a cool winter night in Memphis, Dr. William Armstrong foresaw the end of the 1878 fever season and reflected on the loss of colleagues by commenting on his solitude. “My heart abounds with joy,” he wrote, “at the mere hope that this cool night will possibly end our labors. . . . I alone am standing” (Crosby, 2006). The words of Dr. Armstrong speak to the impact of work demands and emotional drain on healers in the American South. What remains for a physician or nurse or reverend who sacrificed so much over several months only to see patients, friends, and coworkers perish? The respite of the fever’s end calmed Dr. Armstrong and others, but at what personal cost? He had survived the fever (he was infected, but overcame the malady), served others (many of whom did not survive), and abandoned his family (left in the countryside of Tennessee) to treat a disease that, in the end, he was no better off to manage than at the onset. Despondent and broken, caregivers turned to Christianity for assurance.
In the nineteenth century American South, Christianity dominated the region. When faced with professional and personal strain as a result of epidemic yellow fever outbreaks, caregivers looked to Christianity for emotional support. In many cases, Christian fellowships and covenants led the push for patient care. In New Orleans, the Sisters of Charity, the Sisters of the Holy Family, and later, the Italian Sisters of the Sacred Heart worked to secure funding and care for the suffering (Carrigan, 1994). In Memphis, the St. Mary’s Cathedral even functioned as an orphanage for children with sick or deceased parents (Crosby, 2006). Importantly for the caregivers, these churches helped keep immediate the role of God in their work.

Surrounded by beneficent societies and faced with personal and professional futility, caregivers turned to religion for emotional security. DePelchin left behind a clear trail with which to connect medical futility to religion in the yellow fever epidemics of the nineteenth century. One for artful descriptions of her thoughts, DePelchin relayed important trends for Christian caregivers at the time. In October 1878, for instance, she wrote to her sister wondering if God hears her when she prays. Saying, “I have prayed more than in all my life put together,” DePelchin exhibited a reliance on religion during her stay as a Howard nurse (DePelchin, 1878). Many embraced the connections between science and religion, as ministers believed scientific discoveries would confirm the dogmas of Christianity. As one historian put it, “Few people in the South outside the ranks of physicians and scientists could have exhibited greater enthusiasm for natural science than did the southern clergy” (Holifield, 1978). Thus, as science failed and her patience disappeared, DePelchin turned wholeheartedly to Christianity. Religious faith, for DePelchin and others, provided a break from the inadequacies of medical practice during epidemics.

The inclusion of several sermons delivered in fever locales during the 1878 epidemic in Dromgoole’s Heroes, Honors, and Horrors affirms the role of religion for fever healers and patients alike. One such sermon, given in Louisville by Reverend H.C. Morrison, begged the congregation to consider the faith they put in science, stating that science had become a form of idolatry for those (both caregivers and the ill) awaiting the arrival of the season’s first frost to free them from the epidemic. To show the faults of fever sufferers’ idolatry, Morrison cited the prophet of God who prayed for water and received it, despite nearly four years of “brassy heavens” and ignoring the “natural indications” of continued drought. “And yet we pray,” he argued, “and the elements are not changed, and why? He [the prophet] had faith, while we have not” (Dromgoole, 1879). Using the metaphor to make his point, Morrison encouraged the listeners to put less faith in science and more in religion. This sentiment echoed the reflections of DePelchin and other caregivers suffering from emotional distress. Trust religion, not science, these Christians argued, when faced with affronting and uninhibited disease.

CONCLUSION

Religion offered caregivers a reprieve for their scientific blunders, but in the end, the final effect of yellow fever was more exact than could be determined by theories, experimentation, or religious faith. DePelchin made clear the lasting effect of the 1878 epidemic and the internal struggles that followed. After the outbreak had passed, she wrote, “still the remembrance of the awful scenes of the great epidemic have cast a shadow on my heart that will never pass away” (DePelchin, 1878). Faced with daily instances of failure and doubt, caregivers were unable to escape the reverberating emotional damage caused by the epidemic. Therefore, regardless of the methods exhibited for examining the disease’s transmission, proper treatment, or eventual end, those who experienced its wrath suffered from a distinct sense of helplessness in dealing with the malady and its toll. Fear, loss of faith in remedies, isolation, and reliance on religion characterize the emotional consequences for caregivers unable to hinder the disease’s wrath. These themes...
may echo the experiences of clinicians, researchers, and caregivers in today’s health care community, particularly in the context of unyielding, unexpected, and untreatable disease.

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