NOTE

THE PRISONER'S DEMENTIA: ETHICAL AND LEGAL ISSUES REGARDING DEMENTIA AND HEALTHCARE IN PRISON

David M. N. Garavito*

Introi	DUCTION	211			
I.	An Overview of Dementia, Aging, and the Prison				
	POPULATION	216			
	A. Forms of Dementia Common Among the General				
	Population	217			
	B. Forms of Dementia that Place the Prison Population				
	at Risk	219			
II.	THE STATE OF PRISON HEALTHCARE AND WHERE THE				
	System Falls Short	221			
	A. An Overview of the Laws and Policies Concerning				
	Prison Healthcare	221			
	B. How Prison Healthcare Does Not Facilitate the				
	Identification and Treatment of Dementia	227			
III.	Undiagnosed Dementia, Prison Life, and Parole	228			
	A. Quality of Life for Prisoners with Dementia	229			
	B. Dementia, Disciplinary Problems, and Chances for				
	Parole	230			
IV.	A Framework for Addressing Dementia in Prison				
	AND THE NEEDS OF PRISONERS	232			
Conclusion					

Introduction

The United States prison system currently holds around 1.5 million people within both state and federal prisons.¹ Because of the significant

^{*} B.A., University of Michigan, 2015; M.A., Cornell University, 2017; J.D., Cornell School, 2020; Ph.D., Cornell University, 2021; Article Editor, *Cornell Journal of Law and Public Policy*, Vol. 29. Thank you to my family, especially my mother, for always supporting me and pushing me to improve. Thank you to Dr. Valerie Reyna and Professor John Blume for providing me with incredible resources to grow as a scholar, lawyer, and person. Lastly, thank you to the staff of the *Cornell Journal of Law and Public Policy* for their hard work and professionalism.

¹ Peter Wagner & Wendy Sawyer, *Mass Incarceration: The Whole Pie 2018*, PRISON POLICY INITIATIVE (Mar. 14, 2018), https://www.prisonpolicy.org/reports/pie2018.html.

rise in life sentences over the past several decades,² and global trends toward an aging population,³ the prison population is also steadily aging.⁴ In addition, the aging global population has created a number of international public health concerns. In particular, there has been a notable increase in the number of persons diagnosed with dementia, especially in low- and middle-income countries.⁵ Alzheimer's disease (AD), one form of dementia, mostly affects elderly individuals and results in severe neurodegeneration.⁶ Accordingly, an older population brings the increased challenge of diagnosing and treating more individuals who suffer from these diseases. In some developed nations, there are fewer concerns over the effects that aging may have on dementia rates, because increases in education and healthcare may reduce the prevalence of dementia.⁷ Unfortunately, these mitigating factors are unlikely to reach the prison population, who often suffer from improper medical care, particularly when they are indigent.⁸

At the same time that global aging has been gaining attention,⁹ a large body of neuropsychological research has focused on the relationship between traumatic brain injuries, particularly concussions, and dementia.¹⁰ Because of their exposure to brain injuries, "collision athletes,"

² Criminal Justice Facts, The Sentencing Project, https://www.sentencingproject.org/criminal-justice-facts (last visited Nov. 1, 2018).

³ Dementia Statistics, ALZHEIMER'S DISEASE INT'L, https://www.alz.co.uk/research/statistics/ (last visited Nov. 1, 2018).

⁴ Human Rights Watch, Old Behind Bars (2012), https://www.hrw.org/sites/default/files/reports/usprisons0112webwcover_0.pdf. *See also Meeting the Challenges of Dementia in Prisons*, Dementia Action Alliance, https://www.dementiaaction.org.uk/assets/0003/4619/Prisons_and_Dementia-DAA_briefing_paper.pdf (last visited May 28, 2019).

⁵ Alzheimer's Disease Int'l, *supra* note 3. *See also* María M. Corrada et al., *Dementia Incidence Continues to Increase with Age in the Oldest Old: The 90+ Study*, 67 Annals Neurology 114, 117 (2010).

⁶ See Michael W. Weiner et al., The Alzheimer's Disease Neuroimaging Initiative: A Review of Papers Published Since its Inception, 8 ALZHEIMER'S & DEMENTIA S1, S1–2 (2012); Ahmet Turan Isik, Late Onset Alzheimer's Disease in Older People, NCBI (Oct. 11, 2010), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2981103/.

⁷ See Dementia Trends: Implications for an Aging America, Population Reference Bureau at 1 (July 2017), https://assets.prb.org/pdf17/TRA%20Alzheimers%20and%20Dementia.pdf.

⁸ See Alexandra Gates et al., Health Coverage and Care for the Adult Criminal Justice-Involved Population, HENRY J. KAISER FAM. FOUND. (Sep. 5, 2014), https://www.kff.org/uninsured/issue-brief/health-coverage-and-care-for-the-adult-criminal-justice-involved-population/.

⁹ See, e.g., Why Population Aging Matters: A Global Perspective, NAT'L INST. ON AGING (Mar. 2007), https://www.nia.nih.gov/sites/default/files/2017-06/WPAM.pdf.

¹⁰ See, e.g., Jesse Mez et al., Clinicopathological Evaluation of Chronic Traumatic Encephalopathy in Players of American Football, 318 JAMA 360, 361 (2017) (discussing the findings of a study linking exposure to traumatic head injuries in American football to the development of chronic traumatic encephalopathy, a form of dementia). See also Emily Underwood, Can Brain Scans Reveal Concussion-Linked Disease?, 352 Science 881 (2016) (discussing methods used to identify various forms of dementia that traumatic brain injuries may increase one's risk for).

such as football players, and veterans, have been the primary subjects of this research.¹¹ However, recent research has highlighted a third group that may be at risk for a large number of head injuries: prisoners.¹² Thus, in addition to being at risk for dementias associated with normal aging,¹³ prisoners are more likely than the general population to be at risk for chronic traumatic encephalopathy (CTE) and other dementias typically associated with a history of brain injuries.¹⁴

For many dementias, the most common symptom that professionals recognize in diagnoses is a general difficulty with remembering information. 15 However, particularly with dementias such as CTE, a number of other signs and symptoms may present themselves before these memory issues arise. 16 To confound things further, these other symptoms are observed simultaneously, complicating diagnoses.¹⁷ These other signs and symptoms include disinhibition, emotional shifts, irritability and violent outbursts.¹⁸ Because these symptoms are likely to be dismissed by prison personnel, who may see these prisoners as simply being unruly or ignoring orders, 19 the recognition of the early stages of dementia within the prison population is very difficult.²⁰ Symptoms would need to become more severe, or detection methods would need to be more sensitive, before warranting a medical investigation.²¹ This is particularly important given that, even among non-incarcerated populations, professionals may not be called in to check for dementia until prompted by evidence of much more advanced symptoms or referred by others who witness more behaviors.²² Thus, prisoners are less likely to be given a diagnosis of

¹¹ See, e.g., Mez et al., supra note 10, at 360-61.

¹² Erika Hayasaki, *Teaching Prison Inmates About Their Own Brain Trauma Could Help Them Rehabilitate*, Newsweek (June 29, 2016), https://www.newsweek.com/2016/07/08/prison-inmate-traumatic-brain-injury-research-475615.html.

^{13 2019} Alzheimer's Disease Facts and Figures, Alzheimer's Ass'n at 17 (2019), https://www.alz.org/media/Documents/alzheimers-facts-and-figures-2019-r.pdf.

¹⁴ See Hayasaki, supra note 12.

¹⁵ Cf. Ainsley Moore et al., Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 60 CAN. FAM. PHYSICIAN 433, 435 (2014) (using the examples of AD and mild cognitive impairment).

¹⁶ See Michael W. Lenihan & Barry D. Jordan, The Clinical Presentation of Chronic Traumatic Encephalopathy, 15 Current Neurology Neuroscience Reps. 23 (2015).

¹⁷ See id.

¹⁸ See id. See also Maura Ewing, When Prisons Need to Be More Like Nursing Homes, The Marshall Project (Aug. 27, 2015), https://www.themarshallproject.org/2015/08/27/when-prisons-need-to-be-more-like-nursing-homes (discussing ways to treat older, ailing inmates).

¹⁹ See Ewing, supra note 18.

²⁰ See, e.g., Ewing, supra note 18.

²¹ See, e.g., Ewing, supra note 18; Pam Belluck, Life, With Dementia, N.Y. Times (Feb. 25, 2012), https://www.nytimes.com/2012/02/26/health/dealing-with-dementia-among-aging-criminals.html.

²² Cf. Alzheimer's Ass'n, *supra* note 13, at 5–7 (discussing the growing manifestations of AD over time).

dementia in stages that are early enough to manage, compared to the non-incarcerated population.²³

Early diagnosis is extremely important in the medical treatment of dementia, and getting effective treatment early is paramount to minimizing the effects of these diseases.²⁴ While cures for dementias have yet to be developed, various methods have been demonstrated to be effective in mitigating the effects of these diseases.²⁵ Further, while genetic testing and biomarkers have been the focus of many researchers who are looking to design more accurate diagnostic measures,²⁶ simple and less costly mental state exams and memory tests have proven to be quite effective in detecting the early stages of neurodegeneration.²⁷ These tests can be given to prisoners without the need for expensive medical equipment often required for medical diagnosis, but which is typically absent in a prison setting.²⁸

Currently, the prison healthcare system does not facilitate the type of preventative medicine necessary for the identification and treatment of these kinds of neurological disorders.²⁹ The Supreme Court, in *Estelle v. Gamble*,³⁰ set minimum standards for providing healthcare to prisoners.³¹ This standard, however, focused on "deliberate indifference" by prison personnel concerning the serious medical needs and requests of prisoners.³² While the standard set forth in *Estelle* may help those prisoners suffering from physical illnesses that *overtly* present themselves, dementias, as mentioned before, often present themselves in benign ways, such as memory problems and impaired judgment.³³ Even assuming that prison personnel would not dismiss the claims made by potentially affected prisoners, the subtle symptomology of dementias makes it less

²³ See Belluck, supra note 21.

²⁴ Dementia, WORLD HEALTH ORG. (Dec. 12, 2017), http://www.who.int/news-room/fact-sheets/detail/dementia.

²⁵ David B. Hogan et al., *Diagnosis and Treatment of Dementia: 5. Nonpharmacologic and Pharmacologic Therapy for Mild to Moderate Dementia*, 179 CMAJ 1019, 1019–20 (2008).

²⁶ See Alzheimer's Ass'n, supra note 13, at 8, 11.

²⁷ Howard H. Feldman et al., *Diagnosis and Treatment of Dementia: 2. Diagnosis*, 178 CMAJ 825, 828 (2008).

²⁸ See Medical Tests, Alzheimer's Ass'n, https://www.alz.org/alzheimers-dementia/diagnosis/medical_tests (last visited Mar. 29, 2019); Virginia B. Kalish & Brian Lerner, Mini-Mental State Examination for the Detection of Dementia in Older Patients, 94 Am. Fam. Physicians. 880, 880-881 (2016). For more information concerning the availability of medical equipment in prison, see Richard L. Lichtenstein et al., Licensed Physicians Who Work in Prisons: A Profile, 98 Pub. Health Reps. 589, 590 (1983).

²⁹ Tina Maschi et al., *Forget Me Not: Dementia in Prison*, 52 GERONTOLOGIST 441, 444–45 (2012).

³⁰ Estelle v. Gamble, 429 U.S. 97 (1976).

³¹ Id. at 103-05.

³² *Id.* at 104.

³³ See Lenihan & Jordan, supra note 16.

likely that a prisoner will request medical attention for these symptoms.³⁴ Accordingly, the current legal standards for care may also allow these diseases to spread unchecked throughout a prisoner's brain.³⁵ This fact, combined with the reality that those prisoners asking for medical care do not always receive it, especially when they are indigent,³⁶ suggests an underdiagnosing issue that may lead to increasing problems. Indeed, when untreated, the effects of dementia will likely result in more extreme behavioral and neuropsychological consequences,³⁷ which may in turn result in increased disciplinary issues and parole denials.³⁸ Consequently, dementia, through parole denials and other issues, may not only worsen, but also lengthen the sentences of victims of these diseases, particularly if a prisoner is not even diagnosed.³⁹

This Note will give an overview of the political and legal issues that lead to the underdiagnosing of dementias in prison populations and the problems associated with such underdiagnosing. Part I will discuss various forms of dementia that place the prison population at risk, providing general information about both pathology and symptomology of these disorders. Part II will provide an overview of the laws and policies surrounding the healthcare of prisoners and how these policies could lead to underdiagnosing problems specifically with neurological problems like dementia. Part III will describe how the symptomology of dementia, especially for those who remain undiagnosed and therefore untreated, will impact the lives of prisoners and worsen or even lengthen their sentences, with a focus on disciplinary problems and parole hearings. Finally, Part IV will provide a framework for addressing the minimal diagnostic needs of prisoners by placing a greater emphasis on routine medical checkups for aging prisoners that include the kinds of basic cognitive tests that are readily available and do not come with high costs.

³⁴ See, e.g., Belluck, supra note 21.

³⁵ Cf. Estelle, 429 U.S. at 105 (ruling that only the "deliberate indifference to serious medical needs of prisoners" is a violation of the Eighth Amendment).

³⁶ See, e.g., Paul Von Zielbauer, As Health Care in Jails Goes Private, 10 Days Can Be a Death Sentence, N.Y. Times (Feb. 27, 2005) https://www.nytimes.com/2005/02/27/nyregion/as-health-care-in-jails-goes-private-10-days-can-be-a-death.html.

³⁷ Belluck, supra note 21.

³⁸ See, e.g., id.; Ewing, supra note 18.

³⁹ See infra Section III.B. For an overview of barriers to older adults in prison, with and without dementia, see Brian Fischer, Older Adults in the New York State Prison System, CTR. FOR JUST. AT COLUM. U. at 24 (Nov. 2015), http://centerforjustice.columbia.edu/files/2015/10/AgingInPrison_FINAL_web.pdf.

I. AN OVERVIEW OF DEMENTIA, AGING, AND THE PRISON POPULATION

Dementia itself is not one specific disease but a classification of diseases that result in similar symptomology.⁴⁰ These diseases affect basic cognitive functions, impeding a person's ability to function independently.41 The most common forms of progressive dementias (i.e., those that worsen over time and are not reversible) affecting people today are Alzheimer's disease (AD), Lewy body dementia, vascular dementia, and frontotemporal dementia.⁴² Although specific forms of dementias may exhibit different pathology (i.e., the physical manifestations of the disease) and symptomology (i.e., the effects of the disease on one's physical or mental state), many of these diseases are comorbid with each other, leading to difficulties in determining the causes and underlying nature of these diseases.⁴³ In other words, if a person has one form of dementia, they will often have pathology consistent with one or more other forms.⁴⁴

Other terms that are often used in discussions about dementia are "neurodegeneration" or "neurodegenerative disease". These labels describe a characteristic that is key to most forms of dementia: a permanent and progressive breakdown of the brain's cellular structure. 45 This degeneration may even be observed in its early stages, using modern brain imaging methods, such as magnetic resonance imaging or computerized topography. 46 If imaging tests prove inconclusive, or too expensive, tests of cognitive and executive functioning can provide the information necessary for an appropriate diagnosis of dementia.⁴⁷ Indeed, these tests, along with specific symptoms that a patient may present, can provide a physician with enough information to suggest a diagnosis for a specific form of dementia.⁴⁸ The patient's age and medical history are other factors that may inform a diagnosis. 49 For example, if a patient recently had one or more strokes, this could suggest that he or she may be suffering from vascular dementia.⁵⁰ Additionally, because aging naturally leads to

⁴⁰ See B. L. Plassman et al., Prevalence of Dementia in the United States: The Aging, Demographics, and Memory Study, 29 Neuroepidemiology 125, 125–26 (2007).

⁴¹ See id. See also World Health Org., supra note 24.

⁴² See Feldman et al., supra note 27, at 830.

⁴³ See id. See also Peter T. Nelson et al., Neuropathology and Cognitive Impairment in Alzheimer Disease: A Complex but Coherent Relationship, 68 J. Neuropathology & Experi-MENTAL NEUROLOGY 1, 7 (2009) (discussing the difficulties of studying the pathology of AD due to the presence of other dementias and cerebrovascular diseases).

⁴⁴ See Nelson et al., supra note 43.

⁴⁵ See Weiner et al., supra note 6, at S1.

⁴⁶ See, e.g., Underwood, supra note 10.

⁴⁷ See Feldman et al., supra note 27, at 828.

⁴⁸ See generally id.

⁴⁹ See id. at 827.

⁵⁰ Vascular Dementia, MAYO CLINIC (May 9, 2018), https://www.mayoclinic.org/diseases-conditions/vascular-dementia/symptoms-causes/syc-20378793.

neurodegeneration,⁵¹ this is also a risk factor for the development of neurodegenerative forms of dementia.⁵² In fact, these specific forms of dementia have become the cause for greater concern as the global population ages, resulting in a greater number of dementia diagnoses.⁵³ Further, certain risk factors for these diseases suggest that prisoners may be more prone to develop both those forms of dementia affecting the general population⁵⁴ and forms of dementia that are rarer and affect only certain subgroups of the population.⁵⁵

A. Forms of Dementia Common Among the General Population

As explained above, there are several common forms of dementia affecting the general, global population today.56 Alzheimer's disease (AD) is one of the most well-known neurodegenerative dementias, and it is specifically classified as a tauopathy.⁵⁷ Neurodegenerative tauopathies are so named because the neurodegeneration and the associated symptomology caused by these diseases are driven by tangles of tau fibrils in addition to amyloid plaques.⁵⁸ Amyloid plaques are roughly spherical deposits of proteins that reside outside of cells located within the brain.⁵⁹ In fact, the presence of these plaques is not thought to be the driving force behind symptomology, and plaques have been identified in multiple forms of dementia.60 Tau, on the other hand, is a microtubule associated protein that assists in providing neurons with structural support.⁶¹ In tauopathies like AD, the microtubules in neurons break apart due to deficient tau proteins, resulting in the death of neurons and tangles of tau fibrils building up in the brain.62 This specific element of AD pathology is thought to be the driving force behind the symptoms charac-

⁵¹ Tony Wyss-Coray, Ageing, Neurodegeneration, and Brain Rejuvenation, 539 Nature 180, 181 (Nov. 2016).

⁵² Id.

⁵³ Corrada et al., *supra* note 5.

⁵⁴ Belluck, supra note 21.

⁵⁵ Id.

⁵⁶ World Health Org., supra note 24.

⁵⁷ See Miranda E. Orr et al., A Brief Overview of Tauopathy: Causes, Consequences, and Therapeutic Strategies, 38 Trends Pharmacological Sci. 637, 638 (2018).

⁵⁸ Nelson et al., supra note 43, at 2-3.

⁵⁹ *Id.* at 2.

⁶⁰ Id. at 2.

⁶¹ See Beate Winner et al., Neurodegenerative Disease and Adult Neurogenesis, 33 Eur. J. NEUROSCIENCE 1139, 1139 (2011).

⁶² Id. at 1140-41.

teristic of AD.63 The most recognized symptom of AD is memory loss,64 though AD also affects elements of emotion regulation, judgment and cognition over time.65 This progression from problems with basic abilities to problems with more advanced functions of the brain is the result of AD manifesting itself in the primitive core of the brain first, affecting areas related to basic cognitive processes such as memory.⁶⁶ Then, as the disease progresses and gets worse, the pathology spreads through the neocortex—the more advanced and outermost part of the brain.⁶⁷ This results in patients slowly losing control of more advanced functions as time passes.68

That being said, AD is not the only form of dementia that may affect the general population. Further, depending on the specific disease, the pathology may involve other specific characteristics, develop at different rates, or manifest itself in different areas of the brain.⁶⁹ For example, frontotemporal dementia is one of the most common forms of dementia, particularly in younger age groups, and primarily affects the frontal and temporal lobes of the brain.⁷⁰ Patients that have this form of dementia primarily exhibit problems with cognition and executive function, emotional regulation, and motivation early on, largely due to the specific areas of the brain affected.⁷¹ Thus, variations in pathology lead to differences in symptomology, which may in turn lead to differences in the rate of symptom development.⁷² Therefore, there is the potential of added delay because the disease may progress before the person suffering or other observers recognize that symptoms may be stemming from some greater medical concern.⁷³ This latter point is especially important given that visits to a doctor for the purposes of checking for dementia are mostly due to the suggestion and efforts of the patient's family and friends, or the self-awareness from a patient recognizing and reporting

⁶³ See Nelson et al., supra note 43, at 3. It is important to note that there has been discussion about whether the presence of tangles and plaques is actually the cause of symptoms of AD or whether it may be simply a byproduct of the brain fighting the AD. See generally Rudy J. Castellani et al., Alzheimer Disease Pathology as a Host Response. 67 J. Neuropathology & Experimental Neurology 523 (2008).

⁶⁴ What Are the Signs of Alzheimer's Disease, NAT'L INST. ON AGING (May 16, 2017), https://www.nia.nih.gov/health/what-are-signs-alzheimers-disease.

⁶⁵ See Nelson et al., supra note 43, at 9.

⁶⁶ See id. at 4.

⁶⁷ See id.

⁶⁸ ALZHEIMER'S ASS'N, supra note 13, at 6.

⁶⁹ See Feldman et al., supra note 27, at 830-31.

⁷⁰ Olivier Piguet et al., Behavioural-Variant Frontotemporal Dementia: Diagnosis, Clinical Staging, and Management, 10 LANCET NEUROLOGY 162, 162 (2011).

⁷¹ Id.

⁷² Id. at 162–64.

⁷³ *Id*.

symptoms early.⁷⁴ As such, without proper support, it is much less likely for a person to receive an early diagnosis of dementia.⁷⁵

As mentioned earlier, due to the aging population, there has been a public health concern about the increasing rates of Alzheimer's and related dementias.⁷⁶ Across the globe, the population is getting older for several reasons. On a smaller scale, just within the United States, one major contributing factor has been the recent declines in birth rate and the aging of the Baby Boomer generation.⁷⁷ Globally, however, increases in average life expectancy reflects significant improvements in medical care and standards of living in many countries. 78 These improvements in healthcare and lifestyle also give reason for hope. While an aging population increases the risk of developing neurodegenerative diseases that are correlated with advanced years, 79 increased overall health may reduce this correlation in time.80 Will increased health mitigate the negative effects of aging? Only time will tell. Nevertheless, people from countries with lower standards of living or who lack ability or resources, such as prisoners, will likely not experience such benefits.81 Prisoners may have the disadvantages that come from genetics and the environment.82 Due to their backgrounds and their immediate surroundings, prisoners may be more prone to certain dementias compared to the general population.83

B. Forms of Dementia that Place the Prison Population at Risk

One form of dementia that prisoners are particularly at risk for is chronic traumatic encephalopathy (CTE), originally known as "dementia pugilistica." This disease has become fairly well-known in recent years because of its prevalence among contact sports (e.g., football) athletes and military veterans.⁸⁴ The reason that certain populations, including prisoners, are at a greater risk for CTE is that its development has been associated with incidence of concussions and other traumatic brain injuries: people who have greater exposure to, and a history of, concussive

⁷⁴ See Judith Graham, When They Don't Know They Are Ill, N.Y. TIMES: THE NEW OLD AGE (Jan. 22, 2014), https://newoldage.blogs.nytimes.com/2014/01/22/when-they-dont-know-they-are-ill/.

⁷⁵ See id.

⁷⁶ Weiner et al., supra note 6; Isik, supra note 6.

⁷⁷ Mark Mather et al., Aging in the United States, Population Bull., Dec. 2015, at 2.

⁷⁸ ALZHEIMER'S DISEASE INT'L, supra note 3.

⁷⁹ Wyss-Coray, supra note 51, at 181.

⁸⁰ See Population Reference Bureau, supra note 7.

⁸¹ Id. at 5.

⁸² Hayasaki, supra note 12.

⁸³ Id

⁸⁴ See Lenihan & Jordan, supra note 16, at 23.

brain injuries are at a greater risk of developing CTE.⁸⁵ Further, prisoners, just like military veterans and athletes, tend to have a disproportionately extensive history of head injuries compared to the general population.⁸⁶ This finding is thought to be due to both the backgrounds of most prisoners, particularly those who have a history of violence or abuse, and the violent nature of the prison environment.⁸⁷ To make matters worse, traumatic brain injury has always been correlated with the development of other forms of dementia, including AD, and diseases like Parkinson's.⁸⁸

In addition to the increased likelihood for prisoners to develop dementias like CTE, the pathology and symptomology of CTE is more subtle than the pathology and symptomology found in dementias like AD. Unlike AD, which is characteristically defined by its effects on memory, there is no symptom of CTE that sets it apart from other forms of dementia. 89 Instead, it is the pathology associated with CTE that distinguishes it from other forms of dementia like AD. CTE, like AD, is a neurodegenerative tauopathy.90 However, unlike AD, the neurodegeneration associated with CTE does not start in the primitive core of the brain, but rather in the outer cerebral cortex.91 Thus, similar to frontotemporal dementia, the early signs and symptoms of CTE can only be observed by looking for very subtle effects on decision making and executive functioning, as well as on emotion regulation.⁹² Additionally, the development of this neurodegenerative dementia appears to happen earlier than other forms of dementia, with the onset occurring around the age of 40 as opposed to later in the lifespan as with AD.⁹³ Because of this, it is important to have a medical protocol that allows for the early diagnosis and proper treatment of these diseases. However, the prison system, both because of institutional restrictions and the fact that many prisoners are indigent, falls far short of meeting the standards required to properly address dementia.

⁸⁵ See generally Mez et al., supra note 10, at 361.

⁸⁶ Hayasaki, supra note 12.

⁸⁷ See id.

⁸⁸ Kevin M. Guskiewicz et al., Association Between Recurrent Concussion and Late-Life Cognitive Impairment in Retired Professional Football Players, 57 Neurosurgery 719, 719 (2005).

⁸⁹ See Robert A. Stern et al., Clinical Presentation of Chronic Traumatic Encephalopathy, 81 Neurology 1122, 1123 (2013).

⁹⁰ Ann C. McKee et al., *Chronic Traumatic Encephalopathy in Athletes: Progressive Tauopathy Following Repetitive Head Injury*, 68 J. NEUROPATHOLOGY & EXPERIMENTAL NEUROLOGY 709, 709–10 (2009).

⁹¹ Mez et al., *supra* note 10, at 362-63.

⁹² Lenihan & Jordan, supra note 16.

⁹³ See Brandon E. Gavett et al., Chronic Traumatic Encephalopathy: A Potential Late Effect of Sport-Related Concussive and Subconcussive Head Trauma, 30 CLINICS SPORTS MED. 179, 183 (2011).

II. THE STATE OF PRISON HEALTHCARE AND WHERE THE SYSTEM FALLS SHORT

Healthcare within the prison system is a complicated business, often requiring the collaboration of public and private actors. First, providing adequate healthcare relies heavily on the self-identification of maladies by the inmates themselves. Second, prison staff must be willing to take an inmate's claims seriously. Both participants must be able to recognize medical problems and agree about seeking appropriate and informed personnel. Although prison systems vary in the specifics of their health care programs, the reliance on the effective communication between inmates and prison staff is a common denominator. Unfortunately, another key characteristic shared by prison healthcare systems that becomes apparent after reviewing the most common healthcare procedures is how inadequately they address the diagnostic needs of those prisoners with dementia (and other mental health concerns not addressed in this Note).

A. An Overview of the Laws and Policies Concerning Prison Healthcare

Each state, as well as the federal government, has its own system and policies in place to provide health care to inmates. 94 These systems have to meet very simple standards in regard to providing medical care to inmates, set forth by federal courts in a slew of cases occurring in the 20th century. 95 These cases were often unsuccessful for the inmate-plaintiffs, and by the end of these legal conflicts, the courts had set a low standard for prison staff to meet in order to avoid violating inmates' constitutional rights. 96

The first of these cases was *Holt v. Sarver*.⁹⁷ In this case, prisoners from the Cummins Farm Unit of the Arkansas State Penitentiary sued the prison system on a number of issues, including failure to provide adequate medical care.⁹⁸ However, the United States District Court for the Eastern District of Arkansas dismissed the claim, holding that, while the medical and dental facilities "leave a good deal to be desired . . . the deficiencies are [not] such as to raise a constitutional problem." Despite the plaintiffs' loss, this case set the stage for future cases. Chiefly, the court held that the state has a "duty to use ordinary care to protect [prisoners'] lives and safety while in prison." Additionally, before this

⁹⁴ See Wagner & Sawyer, supra note 1.

⁹⁵ See, e.g., Estelle v. Gamble, 429 U.S. 97 (1976).

⁹⁶ Id.

^{97 300} F. Supp. 825 (E.D. Ark. 1969).

⁹⁸ Id. at 826.

⁹⁹ Id. at 828.

¹⁰⁰ Id. at 827.

case, there was little documentation of medical practice and procedure in prisons.101

After Holt v. Sarver, 102 two cases in 1972 showed promise for establishing a constitutional right to healthcare for prisoners: Campbell v. Beto¹⁰³ and Newman v. Alabama.¹⁰⁴ In the first case, the administration at the Texas prison classified inmate Campbell as a prisoner whose medical state excused him from manual labor. 105 Despite this, Campbell was assigned and even forced to perform manual labor by the prison administration. 106 The Fifth Circuit Court of Appeals held that the serious allegations in the inmate's complaints required the court to provide the inmate an opportunity to provide substantiating evidence. 107 The court, in making its decision, stated that courts must "be ever vigilant to assure that the conditions of incarceration do not overstep the bounds of federal constitutional limitations."108 Further, the court set a standard for medical care, holding that "deprivation of basic elements of adequate medical treatment," similar to the deprivation of basic elements of hygiene and "particularly such deprivation as immediately threatens life and limb," is subject to, and likely violates, constitutional protections. ¹⁰⁹ In *Newman v*. Alabama, inmates in Alabama state prisons sued over horrendous conditions, caused by severe understaffing. 110 Specifically, untrained inmates kept private Medical records, administered medication, and even performed minor surgeries, often without supervision to address medical problems of other inmates. 111 These conditions "shock[ed] . . . the conscience" of the District Court for the Middle District of Alabama, which held that this state of neglect violated the prisoners' rights in the Eighth and Fourteenth Amendments.112 While this case was significant in finding an implied right of adequate healthcare for prisoners, 113 the holding was only binding for the Middle District of Alabama and was later overturned by the Supreme Court of the United States due to sovereign immunity and the Eleventh Amendment.114

¹⁰¹ Douglas C. McDonald, Medical Care in Prisons, 26 CRIME & JUST. 427, 431 (1999). The few sources of information in the early 20th century, however, described inmates providing care, illicit drug sales, and torture. Id.

¹⁰² Holt v. Sarver, 300 F. Supp. 825 (E.D. Ark. 1969).

^{103 460} F.2d 765 (5th Cir. 1972).

^{104 349} F. Supp. 278 (M.D. Ala. 1972).

¹⁰⁵ See Campbell, 460 F.2d at 766.

¹⁰⁶ Id. at 766-67.

¹⁰⁷ Id.

¹⁰⁸ Id. at 767-68.

¹⁰⁹ Id. at 768.

^{110 349} F. Supp. 278, 281 (M.D. Ala. 1972).

¹¹¹ Id. at 283.

¹¹² Id. at 278-281.

¹¹³ See id.

¹¹⁴ Alabama v. Pugh, 438 U.S. 781 (1978).

Nevertheless, the Supreme Court declared a constitutional right to healthcare for prisoners in the landmark case of Estelle v. Gamble. 115 After being injured while unloading bales of cotton at a Texas state prison, inmate J.W. Gamble complained of back pain to prison officials. 116 After being sent back to his cell without any medical intervention, Gamble complained again, and a prison doctor later diagnosed him with a lower back injury.¹¹⁷ Gamble was given a pass that allowed him to remain in his cell, in addition to being given pain medication. 118 When the doctor revoked his pass, however, the prison administration demanded that he return to work, despite the fact that he was still on medication and still complaining of pain. 119 The prison administration placed Gamble in administrative segregation and ordered that he see another doctor, who diagnosed Gamble with high blood pressure in addition to his existing back injury and prescribed additional medications. 120 Gamble continued to refuse to work throughout the months of December and January and thus remained in administrative segregation. 121 His prescription for blood pressure medication was not filled because the prison staff "lost it," and Gamble started complaining of migraines. 122 At the end of January, due to his refusal to work and a medical assistant's testimony that Gamble was in perfect health, Gamble was sent to solitary confinement.¹²³ A few days into his sentence, Gamble reported experiencing blackouts and chest pain, for which he was sent to the hospital. 124 At the hospital, Gamble was diagnosed with an irregular heart beat and prescribed medication accordingly. 125 Gamble was returned to administrative segregation instead of solitary confinement upon his return to the prison; however, prison staff refused to let him see a doctor when he complained of intermittent chest pain over the next few days. 126

Gamble filed suit under § 1983,¹²⁷ stating that the inadequate medical care provided to him was equivalent to cruel and unusual punishment, violating his civil rights.¹²⁸ The Supreme Court of the United States ultimately held that Gamble's claims were not cognizable, as he was seen by

```
115 Estelle v. Gamble, 429 U.S. 97 (1976).
116 Id. at 99.
117 Id.
118 Id.
119 Id. at 99–100.
120 Id.
121 Id. at 99–100.
122 Id. at 100.
123 Id. at 101.
124 Id.
125 Id.
126 Id.
127 42 U.S.C. § 1983 (2018).
```

128 429 U.S. at 98.

doctors and received treatment, including medication, during the time of his injury and subsequent illness. 129 However, while the outcome of this case did not benefit Gamble, the court did set the standard for future cases. The Justices held that "deliberate indifference to serious medical needs," as well as intentional denial of access to healthcare (including through interference by prison staff) can be considered "unnecessary and wanton infliction of pain . . . proscribed by the Eighth Amendment." 130 Although Gamble argued that his back injury was not sufficiently or properly treated, the Court held that his treatment did not demonstrate deliberative indifference or its equivalent, despite being valid grounds for a medical malpractice claim. 131 The Justices explained that, because inadequate care is not "repugnant to the conscience of mankind," merely accidentally or negligently providing inadequate care does not violate the Eighth Amendment. 132 "Medical malpractice does not become a constitutional violation merely because the victim is a prisoner." 133

The two prongs of the test established in Estelle v. Gamble¹³⁴ were refined in the decades of rulings that followed. The first prong is an objective test to determine whether an inmate has a serious medical need.¹³⁵ A few years after *Estelle*,¹³⁶ the Court held that only when an inmate is denied "the minimal civilized measure of life's necessities," could an Eighth Amendment violation be established.¹³⁷ Further, the First Circuit Court of Appeals held that medical treatment for prisoners, to meet minimal standards, must be "reasonably commensurate with modern medical science and of a quality acceptable within prudent professional standards."138 Later, in 1994, the Eleventh Circuit Court of Appeals held that a "serious medical need" needed to be diagnosed by a physician as mandating treatment, or otherwise be "so obvious that even a lay person would easily recognize the necessity for a doctor's attention."139 The Second Circuit Court of Appeals held that a serious medical condition exists where "the failure to treat a prisoner's condition could result in further significant injury," either significantly affecting an individual's daily activities or unnecessarily and wantonly inflicting pain. 140 In 1995, the Prison Litigation Reform Act specifically excluded the re-

```
129 Id. at 107.
```

¹³⁰ Id. at 104-05.

¹³¹ Id. at 105-06.

¹³² Id.

¹³³ Id.

¹³⁴ Id.

¹³⁵ Id. at 105-06.

¹³⁶ Id.

¹³⁷ Rhodes v. Chapman, 452 U.S. 337, 347 (1981).

¹³⁸ United States v. DeCologero, 821 F.2d 39, 43 (1st Cir. 1987).

¹³⁹ Hill v. Dekalb Reg'l Youth Det. Ctr., 40 F.3d 1176, 1186–87 (11th Cir. 1994).

¹⁴⁰ Chance v. Armstrong, 143 F.3d 698, 702 (2d Cir. 1998).

covery under federal statute-claims of mental or emotional injuries "suffered while in custody without prior showing of physical injury." ¹⁴¹ In the few successful Eighth Amendment claims that prisoners have brought against correctional facilities, the prisoner was often living with a substantially painful ailment, which either decreased quality of life or caused, or likely would cause, death, permanent injury, or extreme pain. ¹⁴²

The second prong of the Estelle test is a subjective test to determine whether the denial of medical attention was wanton or deliberate. The Supreme Court elaborated on this prong starting with a case in 1986, Whitley v. Albers. 143 The Court held that wantonness in this context equates to deliberate indifference to the serious medical needs of prisoners and, because it is a higher standard than negligence, requires an examination of the mind of the staff member who denied the inmate medical attention.¹⁴⁴ This already difficult burden to meet was made worse for inmate-plaintiffs after Wilson v. Seiter. 145 In this case, the Court held that wantonness is determined by an examination of the circumstances affecting the prison staff member(s) (e.g., rules and procedures) during the alleged acts, not the effects on the inmate-plaintiff. 146 Farmer v. Brennan, although a notable challenge to the subjective prong and to the standard of wantonness, was not successful and arguably resulted in a worse development for future inmate-plaintiffs. 147 The Court, using the language of the Eighth Amendment, suggested that the prison staff who allegedly harmed the inmate-plaintiff must have intended for his conduct to serve as a punitive measure.¹⁴⁸ In other words, serious harm to a prisoner due to negligence "might well be something society wishes to discourage," but it "cannot under our cases be condemned as the infliction of punishment."149 These cases solidified what Estelle¹⁵⁰ established, setting a nearly unreachable bar for inmate-plaintiffs, particularly those with mental or emotional illnesses.

In addition to the low standards that prison staff and administration must meet to fulfill a prisoner's right to healthcare, there is one other characteristic of these prison systems that needs to be examined. In most states, prison officials are allowed to, and often do, require that inmates

```
141 42 U.S.C. § 1997e (2018).
```

¹⁴² See, e.g., Hathaway v. Coughlin, 99 F.3d 550, 553 (2nd Cir. 1996).

^{143 475} U.S. 312 (1986).

¹⁴⁴ Id. at 319-20.

^{145 501} U.S. 294 (1991).

¹⁴⁶ Id. at 303.

^{147 511} U.S. 825 (1994).

¹⁴⁸ Id. at 837.

¹⁴⁹ Id. at 837-38.

¹⁵⁰ Estelle v. Gamble, 429 U.S. 97 (1976).

pay for medical visits, for checkups or for seeking medical intervention for potentially more urgent reasons. 151 This practice has been considered merely an extension of policies requiring payment for other services, for instance the use of the internet.¹⁵² While this type of policy has been used to raise money for prisons, one former official stated that his former department of corrections implemented this type of policy in order to discourage inmates from using expensive medical services. 153 Given that many prisoners are poor, these policies lead many inmates, even those who have chronic illnesses, to forego such services.¹⁵⁴ Even more concerning, indigent inmates using these services, often garner a debt that burdens the inmate and the inmate's family even after incarceration ends. 155 In a report by the Brennan Center for Justice, attorney Lauren-Brooke Eisen discusses how these debts, if excessive, can violate the Eighth Amendment's excessive fines clause, particularly when debts are excessive relative to an inmate's crime. 156 However, while some academic articles discuss how changing standards and new legislation may raise standards for prisoner healthcare and reduce or eliminate financial burdens, little has changed in recent years. 157

In addition to flaws inherent in the "for-pay" policies in prisons, health care providers who work in prisons have also been the subject of criticism. The practices of one for-profit health care provider used primarily by prisons, Prison Health Services, were scrutinized in a series of articles. Across the prison system, there are numerous examples of prisoners waiting for disproportionately long times or being strictly denied care, occasionally resulting in deaths, from ailment or suicide. Companies like Prison Health Services, which has now merged into a larger corporation named Corizon Health, Inc., have been contracted in

¹⁵¹ Michelle Andrews, Even in Prison, Health Care Often Comes With a Copay, NPR (Sept. 30, 2015, 11:08 AM), https://www.npr.org/sections/health-shots/2015/09/30/444451967/even-in-prison-health-care-often-comes-with-a-copay/.

¹⁵² *Id*.

¹⁵³ Id.

¹⁵⁴ Id.

¹⁵⁵ Lauren-Brooke Eisen, *Charging Inmates Perpetuates Mass Incarceration*, Brennan Ctr. for Just. at 1–2 (2015), https://www.brennancenter.org/sites/default/files/blog/Charging_Inmates_Mass_Incarceration.pdf.

¹⁵⁶ Id. at 6.

¹⁵⁷ See generally Evelyn Malavé, Note, Prison Health Care After the Affordable Care Act: Envisioning an End to the Policy of Neglect, 89 N.Y.U. L. Rev. 700 (2014); Hallie E. Mitnick, Note, Estelle v. Gamble in a Post-Affordable Care Act World, 13 Cardozo Pub. L. Pol'y & Ethics J. 797 (2015).

¹⁵⁸ See, e.g., Paul von Zielbauer, As Health Care in Jails Goes Private, 10 Days Can Be a Death Sentence, N.Y. Times (Feb. 27, 2005), https://www.nytimes.com/2005/02/27/nyregion/as-health-care-in-jails-goes-private-10-days-can-be-a-death.html.

¹⁵⁹ See, e.g., id.

¹⁶⁰ See, e.g., id.

many states to treat inmates.¹⁶¹ There is ample evidence suggesting that these private companies have benefitted from lucrative contracts, and placed great importance on profits, sometimes at the expense of the inmates' wellbeing.¹⁶² A series of deaths and lawsuits led to this conclusion. For example, Corizon was sued over 660 times for medical malpractice within a five-year span.¹⁶³ Another company, Wexford Health Sources, faced over a thousand malpractice suits in a four-year span.¹⁶⁴ Although these lawsuits may cost them in settlements, the billions of dollars that these corporations make in their contracts offsets the costs associated with litigation.¹⁶⁵

This state of affairs makes the U.S. Supreme Court's statement that medical malpractice is not a violation of a prisoner's constitutional rights much more serious than perhaps even the Court perceived at the time of its ruling in *Estelle*. ¹⁶⁶ In total, the issues of private contracts with limited oversight for medical treatment added to the limited resources, and little legal recourse, for the inmates seeking treatment, make inmate health care a seriously difficult issue. Furthermore, these issues make the recognition and treatment of dementia specifically more challenging than it would otherwise be.

B. How Prison Healthcare Does Not Facilitate the Identification and Treatment of Dementia

Given the subtle symptomology seen in many forms of dementia, particularly those like CTE, which prisoners are at an increased risk of developing, ¹⁶⁷ it is easy to see how most prison healthcare systems fail to follow the procedures and fail to provide the resources necessary to address the needs of prisoners who may have these diseases. Primarily, as these are mental diseases that come with few observable physical manifestations, the Prison Litigation Reform Act would prevent federal statute-litigation from arising from lack of care on the part of prison

¹⁶¹ Brian Mahany, Corizon Health – A Death Sentence for Prisoners? (Whistleblower Post), Mahany Law (Dec. 25, 2017), https://www.mahanyertl.com/2017/corizon-health-whistleblower/.

¹⁶² See Zielbauer, supra note 158.

¹⁶³ Dan Christensen, Florida Prison Officials Didn't Ask, Companies Didn't Tell About Hundreds of Malpractice Cases, Fla. Bulldog (Oct. 2, 2013), https://www.floridabulldog.org/2013/10/florida-prison-officials-didnt-ask-companies-didnt-tell-about-hundreds-of-mal-practice-cases/.

¹⁶⁴ Id.

¹⁶⁵ See Will Tucker, Profits vs. Prisoners: How the Largest U.S. Prison Health Care Provider Puts Lives in Danger, S.P.L.C. (Oct. 27, 2016), https://www.splcenter.org/20161027/profits-vs-prisoners-how-largest-us-prison-health-care-provider-puts-lives-danger.

¹⁶⁶ Estelle v. Gamble, 429 U.S. 97, 105–06 (1976).

¹⁶⁷ See supra Part I.

officials. 168 This is particularly important given that, as inmates tend to be younger when entering prison, 169 dementia is more likely to develop after a prisoner begins serving a sentence, compared to when a person enters prison (and may be screened for existing ailments). 170 Nevertheless, even if the Prison Litigation Reform Act exclusions¹⁷¹ did not exist, the framework for health care in prison tends to rely primarily on inmates requesting medical care. Indeed, those inmates affected by diseases such as dementias, which affect judgment and tend to be mostly unnoticed by the individual, may not receive medical care until the symptoms become so severe that others, prison inmates or staff, request care for the affected individual. That being said, there is no guarantee that the health care provider for the prison, such as Corizon, Inc., would provide adequate diagnostic tools or medical care should it be requested since they have to cut costs due to financial stress. 172 Lastly, the fees that accompany medical services in most prisons prevent many inmates from being willing or able to request these services. 173 Because this existing framework exacerbates the already troubling issue of dementia in prison, 174 numerous inmates likely manifest some forms of dementia to various degrees, even if they themselves, or prison officials, may be unaware of it.175

For those whose illness has not received attention and subsequent treatment, dementia may seriously affect their wellbeing. The neuropsychological effects of dementia influence behavior, and social-behavioral dysfunction can be particularly dangerous in prisons, which generally involve restricted settings with other individuals with unpredictable behaviors or interactions. Consequently, these biological issues can have catastrophic effects on the lifestyle and wellbeing of affected inmates.

III. Undiagnosed Dementia, Prison Life, and Parole

If a prisoner develops dementia, and he or she is unable to receive a diagnosis, either through lack of awareness or lack of willingness on the

¹⁶⁸ See 42 U.S.C. § 1997e (2018).

¹⁶⁹ *Demographics*, URBAN INST., https://apps.urban.org/features/long-prison-terms/demographics.html (last visited July 2, 2019).

¹⁷⁰ See Frontotemporal Disorders: Hope Through Research, NAT'L INST. HEALTH (June 2014), https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Hope-Through-Research/Frontotemporal-Disorders.

^{171 § 1997}e.

¹⁷² Mahany, supra note 161.

¹⁷³ Andrews, supra note 151.

¹⁷⁴ See supra Part I.

¹⁷⁵ See, e.g., Christie Thompson & Taylor Elizabeth Eldridge, No One to Talk You Down, Wash. Post (Nov. 21, 2018), https://www.washingtonpost.com/news/national/wp/2018/11/21/feature/federal-prisons-were-told-to-improve-inmates-access-to-mental-health-care-theyve-failed-miserably.

part of prison staff, the effects of dementia will alter the prisoner's life in multiple ways. Depending on the specific form of dementia that the prisoner is suffering from, they will exhibit different symptoms, which will, in turn, come with different ramifications in the prison environment. For example, prisoners with AD may have difficulties remembering information or begin wandering aimlessly; those with frontotemporal dementia or CTE may show difficulties controlling their emotions or exhibit increased impulsivity and poorer judgment. 176 Not only may the effects of these diseases put greater strain on the psychological and emotional health of the prisoner, but these individuals will also be more vulnerable to abuse from others in the prison system. Further, the behavior caused by these diseases may increase the likelihood of disciplinary problems, such as disobeying the orders of prison staff or participating in arguments or altercations with other prisoners.¹⁷⁷ Accordingly, the effects of dementia, particularly when the presence of the disease is unknown to others, may affect the social standing of the prisoner, his or her disciplinary record, and, consequently, his or her ability to successfully convince a parole board that he or she is able to successfully reintegrate with society.

A. Quality of Life for Prisoners with Dementia

Inmates who suffer from at least one form of dementia experience a unique quality of life; many have specialized needs compared to those without dementia. This is particularly true for those who are unaware of their disease or for those who have not elicited the attention (and potential aid) of others. Most dementia diagnoses are made after a person's activities of daily living (ADLs) are disrupted to a degree requiring attention. However, incarcerated individuals experience a different kind of daily life: activities are limited, and duties are often forced. This restrictive living may limit the ability for others to notice abnormal behavior associated with dementia. Because those daily activities that are common in prison are so different from "normal" ADLs, some researchers have identified a separate category of ADLs purely for inmates: prison activities of daily living (PADLs).

¹⁷⁶ See supra Part II.

¹⁷⁷ See, e.g., Human Rights Watch, Use of Force Against Inmates with Mental Disabilities in US Jails and Prisons (2015), https://www.hrw.org/report/2015/05/12/callous-and-cruel/use-force-against-inmates-mental-disabilities-us-jails-and.

¹⁷⁸ See Anne Feczko, Dementia in the Incarcerated Elderly Adult: Innovative Solutions to Promote Quality Care, 26 J. Am. Ass'n Nurse Pracs., 640, 642 (2014).

¹⁷⁹ See, e.g., Craig Haney, The Psychological Impact of Incarceration: Implications for Post-Prison Adjustment, U.S. Dep't Health & Hum. Servs. (Dec. 1, 2001), https://aspe.hhs.gov/basic-report/psychological-impact-incarceration-implications-post-prison-adjustment.

¹⁸⁰ See Feczko, supra note 178.

While the symptoms of the various forms of dementia can vary widely among individuals,181 inmates with various forms of dementia often have similar experiences. Many affected inmates have severe memory deficits and get confused easily, leading them to get into fights or resist orders. 182 Because of this propensity to enter conflicts, those assigned to care for inmates who are diagnosed with dementia have to be properly trained (and equipped) to restrain a violent patient-inmate. Additionally, those affected by dementia may wander around, seemingly in a trance, which may cause fights and lead prison staff to believe the inmate is disobeying orders, which is addressed in the next section of this Note.¹⁸³ Their behaviors may cause other inmates to think that the inmate with dementia is provoking them.¹⁸⁴

Inmates with dementia are more vulnerable to injury compared to the general prison population if they are not strong enough, due to their illness, to defend themselves. One study found that around one in every three elderly female inmates reported physical abuse by other inmates. 185 Additionally, like affected non-inmates, inmates with dementia are more prone to abuse, bullying, and sexual assault. 186 This specific problem explains why several states have established programs that train other inmates to protect those with dementia.¹⁸⁷

В. Dementia, Disciplinary Problems, and Chances for Parole

Beyond the immediate effects that dementia has on an inmate's general quality of life in prison, dementia may manifest itself on behaviors that become relevant to disciplinary issues and parole hearings. This could arguably be the most serious concern as it pertains to the integrity of the entire criminal justice system. Even in other countries, there are growing concerns that inmates with dementia may be punished, by prison staff or fellow inmates, due to the effects of their diseases. 188 In the United States, part of the issue stems from a long-held policy to keep aging inmates with the general population as long as possible. 189 Inmates with dementia tend to wander into areas where they should not be, get

¹⁸¹ See supra Part I.

¹⁸² See Belluck, supra note 21.

¹⁸³ See id.

¹⁸⁴ Id.

¹⁸⁵ Brie A. Williams et al., Being Old and Doing Time: Functional Impairment and Adverse Experiences of Geriatric Female Prisoners, 54 J. Am. Geriatrics Soc'y 702, 705

¹⁸⁶ See Tina Maschi et al., Forget Me Not: Dementia in Prison, 52 GERONTOLOGIST 441, 444 (2012); see generally Patricia M. Burbank, Vulnerable Older Adults: Health CARE NEEDS AND INTERVENTIONS 38-40 (Sheri W. Sussman et al. eds., 2006).

¹⁸⁷ See Belluck, supra note 21.

¹⁸⁸ Charles B. Davison, Pensioners in Prison, 31 LawNow 18, 19-20 (2007).

¹⁸⁹ Human Rights Watch, supra note 4, at 48–49.

into conflicts, and urinate or defecate in public, ¹⁹⁰ all of which are, unsurprisingly, against prison rules. Because of this, prison staff, uninformed about the role that dementia may be playing in an inmate's behavior, would undoubtedly punish the inmate responsible. Further, as explained earlier, dementia is likely to go undiagnosed in most prisons until symptoms have become serious enough to detect unambiguously. ¹⁹¹ For some prison guards, the behavior of sick inmates may resemble behavior from criminals who do not care to abide by prison rules. Consequently, inmates with dementia will be punished for actions and behavior attributable to their diseases. Some punishments, such as sending inmates with dementia to solitary confinement, may aggravate their neurological effects, causing the inmates' mental and physical well-being to further deteriorate. ¹⁹²

Because of the punishments that the inmate may receive for the aforementioned behavior, there is cause for concern about how these conflicts may compromise an inmate's parole outcome. Parole boards consider many aspects of an inmate's crime and prison behavior. ¹⁹³ Just like other prison staff, if a parole board is not aware that a particular parole-eligible inmate is suffering from a form of dementia, they will likely attribute misconduct to the inmate's personality, as opposed to any mental deficiency. If the parole board does grant parole to an inmate, subsequent disciplinary problems may also allow the parole board to rescind a decision to grant an inmate parole. ¹⁹⁴ The unfortunate issue is that, given that dementia is likely to go undiagnosed in the prison population, greater confusion and aggression caused by dementia will likely result in parole denials, further incarceration, and greater mental degeneration.

When prison staff and the parole board are aware of the dementia affecting an inmate, the result is not much better. For those prisons that have programs that provide inmate caretakers to those suffering from dementia, part of the caretakers' job is to keep the inmate out of trouble. However, as these caretakers are often inmates themselves, their own limitations may prevent them from helping their assigned inmate-patient. Additionally, while many individual characteristics, such as mental and physical health, can factor into parole decisions, no one aspect of an inmate is determinative, and ill or impaired inmates often

¹⁹⁰ See Belluck, supra note 21.

¹⁹¹ See Thompson & Eldridge, supra note 175.

¹⁹² See Feczko, supra note 178.

¹⁹³ See, e.g., N.Y. Exec. Law § 259-i(2)(c)(A) (McKinney 2018).

¹⁹⁴ E.g., N.Y. Comp. Codes R. & Regs. tit. 9, § 8002.5 (2019).

¹⁹⁵ See Belluck, supra note 21.

¹⁹⁶ See id.

remain in prison.¹⁹⁷ Since an increasing number of older inmates are dying in prison,¹⁹⁸ it would seem likely that inmates with dementia also die before release. They may even die before parole hearings have begun, particularly given the lack of care available and provided in prisons and their vulnerability to conflict due to their behaviors.¹⁹⁹ Accordingly, a new framework is needed to better diagnose and care for inmates with dementia.

IV. A Framework for Addressing Dementia in Prison and the Needs of Prisoners

To address the issues inherent in most prison healthcare systems, there are several improvements that can be made to prevent dementia, and related diseases, from worsening the lives of prisoners and undermining the integrity of the prison system. However, as stated in *Campbell v. Beto*, the courts are hesitant to interfere in the internal administration of the prison.²⁰⁰ Nevertheless, some straightforward changes, if implemented by the prisons, could reduce issues and costs associated with inmates suffering from dementia. Specifically, improvements can be made regarding screening for diseases, care for affected inmates during their incarceration, and the circumstances of release for affected inmates. While these changes may not solve all the problems discussed, they are starting points to better understand and to help mitigate the cost (human and monetary) of inmates suffering from dementia.

One procedure that is already being utilized to better address the challenges posed by other diseases in a prison setting is early screening. Screening early, particularly for incoming inmates that are older, can help raise flags that will be followed up later on, should the inmate's condition worsen. This is particularly important because of claims that inmates may age faster in prison, due to environmental stressors. Annual checkups for older inmates should also be mandated, as age is a risk factor for dementia. While some sources have recommended a full physical at least each year, which would be optimal, prisons can use simple and affordable tests, such as a Mini-Mental State Exam (MMSE),

¹⁹⁷ See e.g., Human Rights Watch, supra note 4, at 88.

¹⁹⁸ Id. at 83.

¹⁹⁹ See id.; supra Part III.

²⁰⁰ Campbell v. Beto, 460 F.2d 765, 767 (5th Cir. 1972).

²⁰¹ See, e.g., Preventive Health Care Screening, Fed. Bureau of Prisons at 1 (June 2018), https://www.bop.gov/resources/pdfs/phc.pdf.

²⁰² See Feczko, supra note 178, at 640; Maurice Chammah, Do You Age Faster in Prison?, MARSHALL PROJECT (Aug. 24, 2015), https://www.themarshallproject.org/2015/08/24/do-you-age-faster-in-prison.

²⁰³ Wyss-Coray, supra note 51, at 181.

²⁰⁴ See id. at 643.

to improve their ability to assess the cognitive wellbeing of inmates. ²⁰⁵ While the MMSE and other cognitive tests may not work perfectly in a prison setting, ²⁰⁶ simple modifications to these instruments could increase diagnostic ability. Given that the MMSE and similar tests can be completed with only a pencil and paper, without biological samples, they also are quite affordable. ²⁰⁷ Being able to assign suspected inmates to assistance programs or medical care early, before the behaviors become problematic, is an important aspect to consider when dealing with various forms of dementia, especially in the confined prison setting.

The types of assistance programs offered to those inmates affected by dementia vary greatly at this moment, though many prisons offer little to no assistance.²⁰⁸ While a few states have preventative programs, such as Nevada's "True Grit" program, which uses therapy, physical activity, and other activities to increase inmate mental well-being and facilitate healthy aging,²⁰⁹ fewer states have dedicated programs for inmates that already demonstrate various forms of dementia.210 Of course, the most enlightened (and well-funded) departments of corrections have separate housing for aged inmates, particularly those with dementia or other illnesses or disabilities.211 These programs, such as New York's Unit for the Cognitively Impaired at Fishkill Correctional Facility, are staffed with nurses and physicians and may be structured differently to help prevent exacerbating existing mental and emotional problems.²¹² Other programs, such as California's Gold Coats, involve training and employing other inmates with good records to supervise and care for the inmates with dementia.²¹³ This type of program offers supervision and protection for the inmates with dementia and also provides other inmates with income and opportunities to impress their own parole boards.²¹⁴ Examples like these, though, are extremely rare.215

To save the state or federal government money that would be spent on care, one option may be to release the prisoner early. Several organizations and researchers have examined policies for early or compassion-

²⁰⁵ See Feczko, supra note 178, at 644.

²⁰⁶ See id.

²⁰⁷ Mini-Mental Status Examination, Minn. Dep't of Human Servs., https://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestRe-leased&noSaveAs=1&Rendition=Primary&allowInterrupt=1&dDocName=dhs16_159601 (last visited July 2, 2019).

²⁰⁸ Ewing, *supra* note 18.

²⁰⁹ Mary T. Harrison, *True Grit: An Innovative Program for Elderly Inmates*, 68 Corrections Today 46, 46–49 (2006).

²¹⁰ Ewing, supra note 18.

²¹¹ HUMAN RIGHTS WATCH, supra note 4, at 48-55.

²¹² Ewing, supra note 18.

²¹³ Id.

²¹⁴ See Belluck, supra note 21.

²¹⁵ See Human Rights Watch, supra note 4.

ate release before the expiration of an inmate's sentence when that inmate has dementia or other, similar, severe impairments.²¹⁶ These types of policies facilitate the release of inmates who are diagnosed with dementia, instead of leaving them in prison where they face challenges related to their diseases.²¹⁷ However, multiple communities have been uncomfortable with the idea of criminals being released early, and nursing homes are extremely hesitant to accept patients who are felons, particularly sex offenders.²¹⁸ In one Connecticut community, this problem resulted in the establishment of a new nursing home, 60 West Nursing Home, where a third of patients came from the Connecticut Department of Corrections.²¹⁹ However, this nursing home has not functioned without various setbacks: it has yet to be granted Medicaid eligibility, and it has been sued by the local community, their citizens being uncomfortable with new neighbors who are former prisoners.²²⁰ The reality is that serious criminal activity is rarer among older individuals, including those who were formerly incarcerated.²²¹ Moreover, those suffering from dementia, due to physical and neural degeneration, may be an even lessthreatening group.²²² Perhaps, if more early release programs existed, and if more nursing homes accepted former inmates as patients, there would be less resistance to inmates receiving care outside of prison. However, the limited knowledge that these communities have about these inmates and the reasons for their incarcerations and releases will inevitably lead to misunderstandings and fear.

In addition to all these recommendations, prison administrations should allow for more studies on the health of the prison population. Although some studies on the prevalence of dementia have been done, in the United States and other countries,²²³ further studies with larger sample sizes and requiring greater resources would be beneficial. While diagnosing specific forms of dementia is still problematic, having a greater understanding of the state of dementia in prison will help address the associated problems.

²¹⁶ Id. at 25. See also Compassionate Release in the USA, 381 LANCET 1598, 1598 (2013).

²¹⁷ See supra Parts II, III.

²¹⁸ Ewing, supra note 18.

²¹⁹ Id.

²²⁰ Id.

²²¹ HUMAN RIGHTS WATCH, supra note 4, at 81–82.

²²² Cf. NAT'L INST. HEALTH, supra note 170 (describing some symptoms of dementia, such as movement problems and muscle weakness, which would make it harder for a person with dementia to commit serious crimes).

²²³ E.g., Paul Kingston et al., Psychiatric Morbidity in Older Prisoners: Unrecognized and Undertreated, 23 Int'l Psychogeriatrics 1354 (2011).

Conclusion

The general population has been aging, leading to greater prevalence of age-related diseases such as dementia. However, given their environment and history with injury and illness, inmates provide a unique population that holds potentially the greatest risk for dementia. Despite this, few prisons provide the resources necessary to diagnose and care for those individuals who have dementia. The Supreme Court, in Estelle v. Gamble and its progeny, have set an extremely low standard for providing care for inmates, and legislation has protected prisons from lawsuits over lack of care for emotional or mental illnesses and injuries without physical manifestation. Unless the Court intervenes by setting a higher standard, prison administrations will continue to display an astounding lack of care or concern for inmates with dementia. However, by not addressing the problem with diagnosing dementia, prisons risk greater disciplinary issues and future liability, among other things. Further, by not having a plan in place to treat or care for inmates with dementia, incarceration exacerbates symptomology and may facilitate the victimization of affected inmates. Further, costs associated with healthcare, and possible denials from healthcare providers, may prevent an inmate from receiving any care regardless of the inmate's need for medical treatment. In the most extreme cases, undiagnosed inmates may unknowingly cause disciplinary issues that may result in parole denials or extended sentences, keeping them in prison not because they are "hardened criminals" but because they are sick. This Note has given an overview of dementia, prison health care, and the interaction between the two. Further, a framework, using checkups with standard, affordable instruments and various care programs, was described. Using these programs can help a prison deal with issues surrounding dementia and prevent injustices such as victimization or extending a prison sentence as a replacement for medical care. Lastly, if a state wishes to avoid the mounting and inevitable costs associated with dementia, they can help put an early or compassionate release policy in place or help establish a facility such as 60 West Nursing Home in Connecticut. As society has been made more aware of neurological disorders and mental health in general, facilities like these may be met with less fear and judgment. With proper policies and programs implemented, dementia will no longer be the serious dilemma for prisoners (and prisons) that it is today.