A Matter of Intent: A Social Obligation to Improve Criminal Procedures for Individuals with Dementia

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The complex relationship between dementia and criminal behavior perplexes legal and health care systems. Dementia is a progressive clinical syndrome defined by impairment in at least two cognitive domains (memory, reasoning, visuospatial, language, behavior) that significantly interferes with one's activities of daily living (bathing, feeding, toileting, behavior).[1] Prior empirical studies have demonstrated a relationship between dementia and criminal behavior.[2] Additionally, the Federal Bureau of Investigation's data reports over 100,000 arrests in adults over the age of 65 — the same population at the highest risk for dementia.[3] Despite the link between individuals suffering from dementia and criminal behavior, current criminal justice policies and procedures fail to address challenges at the crossroads of dementia and criminal procedures. A gap in policies that protect individuals with dementia during criminal procedures can lead to significant consequences, including inappropriate incarceration.[4] Other scholars have examined whether individuals with dementia are morally responsible for criminal activities.[5] However, a gap remains in defining a social responsibility and establishing protections for individuals with dementia from adverse consequences of the criminal justice system.

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An individual is culpable for a crime when his or her actions meet two elements: *actus reus* and *mens reus*. This article will not explore *actus reus*, requiring prosecutors to show that the individual committed a crime. While there are many challenges that may arise in establishing *actus reus* in criminal cases with individuals who have dementia — these issues will be reserved for a later paper. Here, we examine *mens rea*, the requisite mental status to establish criminal liability, as a mechanism to institute protections for individuals with dementia. We argue that a social responsibility supports legal and procedural mechanisms that would provide categorical protections to individuals with dementia within the criminal justice system. This article draws on prior legal and procedural mechanisms that have considered the mental status and cognitive abilities of analogous populations in criminal sentencing and assignment of liability, including juveniles and individuals with psychiatric illness. While imperfect, the mechanisms in place for juveniles and individuals with psychiatric illness serve as precedents for categorical protections throughout the criminal process. Building from these precedents, this article argues that a social responsibility to vulnerable populations requires policies that implement categorical protections for individuals who commit crimes due to symptoms associated with dementia. This article will describe the role of *mens rea* as grounds for precedent categorical protections in juveniles and individuals with psychiatric illness. Building from these models we will propose applying categorical protections to individuals with dementia.

Mens Rea and Categorical Protections

The theory and application of *mens rea* differentiates actions that indicate culpability from those that do not

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result in criminal liability.[6] The theory relies on the assumption that the individual has a "baseline understanding of social norms" and that an action violates these norms.[7] *Mens rea* serves a dual purpose as an element of the crime and to establish a hierarchy of culpability aligned with punishment.[8] The Model Penal Code (adopted in full or part by 37 states) has delineated four categories of *mens rea* to establish criminal culpability, including: purposefully (intentionally), knowingly, recklessly, and negligently completing an act.[9] States adopt these categories when codifying elements necessary to establish criminal liability and the range of sentences for an action. For example, in Arizona an individual is culpable for assault by "[i]ntentionally, knowingly or recklessly causing any physical injury to another person."[10] In Arizona, knowingly committing an assault would be punishable up to six months of imprisonment versus four months for recklessly committing an assault.[11]

Population Differences: Neuroscience as Grounds to Justify Categorical Protections

Mens rea serves as the grounds for categorical protections that apply to juveniles and individuals with psychiatric illness. Here we define "categorical protections" as systematic protections applied to a population that mitigate the criminal culpability or restrict sentencing due to evidence that an individual lacked *mens rea*. These categorical protections concede that the criminal act has occurred but justify protections on the grounds that the individual did not have the requisite mental status to be deemed criminally liable. Additionally, categorical protections may justify restricting sentences and render specific sentences, including the death penalty or life imprisonment, unconstitutional when applied to a given population. These protections serve as a reflection of societal values that consider some populations to be vulnerable and have reduced responsibility for their actions.

Categorical protections applied to juveniles and individuals with psychiatric illness adopt neuroscientific and clinical understandings of cognitive function to mitigate criminal liability or reduce sentencing. Courts have determined that juveniles and individuals with psychiatric illness are meaningfully distinct based on scientific evidence. These meaningful distinctions help define these populations for categorical protections, including reducing criminal responsibility for actions and curtailing sentencing, even where the action violates a social norm.

Here, we examine *mens rea*, the requisite mental status to establish criminal liability, as a mechanism to institute protections for individuals with dementia. We argue that a social responsibility supports legal and procedural mechanisms that would provide categorical protections to individuals with dementia within the criminal justice system. This article draws on prior legal and procedural mechanisms that have considered the mental status and cognitive abilities of analogous populations in criminal sentencing and assignment of liability, including juveniles and individuals with psychiatric illness. While imperfect, the mechanisms in place for juveniles and individuals with psychiatric illness serve as precedents for categorical protections throughout the criminal process. Building from these precedents, this article argues that a social responsibility to vulnerable populations requires policies that implement categorical protections for individuals who commit crimes due to symptoms associated with dementia. This article will describe the role of *mens rea* as grounds for precedent categorical protections in juveniles and individuals with psychiatric illness. Building from these models we will propose applying categorical protections to individuals with dementia.

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POPULATION DIFFERENCES: COURT RELIANCE ON NEUROSCIENCE AND COGNITIVE SCIENCE

The Supreme Court held that juveniles were unique from adults in the seminal case *Roper v. Simmons*.[12] Writing for the Majority, Justice Kennedy articulated three characteristics that differentiated juveniles from adults: (1) "immaturity and an underdeveloped sense of responsibility"; (2) susceptibility to external influences; and (3) a less formed personality (as a trait) and more likely to benefit from rehabilitation. The Supreme Court has since expanded the application of neuroscience, holding that mandated life sentences without parole unconstitutional for juveniles.[13] Lastly, the Court found that juveniles were less likely to understand or utilize their Miranda rights, specifically juveniles are less likely to meet the standard of whether a "reasonable person" perceived they are in custody.[14] These findings are consistent with other areas of law that extend additional protections and limit juveniles' rights and responsibilities based on scientific evidence that juveniles' capacity differ from adults (i.e., contracting).[15]

Comparatively, courts have adopted a different framework for evaluating criminal culpability for individuals with psychiatric understanding. In the context of affirmative defenses based on psychiatric illnesses courts have considered whether the individual was able to appreciate "right from wrong" at the time of the action. Such affirmative defenses, including the plea of "not-guilty by reason of insanity" may excuse or mitigate criminal responsibility. This plea shifts the burden of proof to the defendant, and their legal counsel, to prove that the defendant was unable to distinguish right from wrong at the time of the incident. Under the Model Penal Code (§ 4.01), a defendant meets criteria if (s)he "did not possess a substantial capacity either to appreciate the criminality of his conduct or to conform his [her] conduct to the requirements of the law."[16] This defense is not absolute and requires that a jury find that the defendant met the requisite standards for the plea. Additionally, juries and judges tend to disfavor use of the plea, which further limits its effectiveness as a categorical protection for the population.

A second framework for individuals with psychiatric illness is the *automatism defense*, which mitigates or excuses criminal liability if the defendant was compelled and unable to impede the action.[17] One court defined automatism as "the existence in any person of behavior of which he is unaware and over which he has no conscious control."[18] According to the court, an automatism behavior is "performed in a state of mental unconsciousness apparently occurring without will, purpose, or reasoned intention."[19] Examples of automatism, may include sleepwalking, hypnotic states, metabolic disorders, or epilepsy and other convulsive or reflexive actions.[20] Circumstances that amount to automatism may result from illnesses and disorders that effect executive function, including post-traumatic stress disorder. In *Schlatter v. State*, the court rejected the defendant's automatism defense plea because his mental status was due to *voluntary* alcohol consumption. Similarly, individuals who were aware of the underlying illness and deliberately stopped treatment would likely be barred from using the defense for criminal actions that resulted from impairment.

COGNITION, PSYCHIATRIC ILLNESS, AND NEUROSCIENCE AS BASIS FOR 8TH AMENDMENT VIOLATIONS

The Supreme Court has an extended history of examining whether the Eighth Amendment bars the death penalty as a sentence for specific populations based on scientific evidence. In 2005, the Supreme Court held that the death penalty constituted "cruel and unusual punishment" for juveniles.[21] The Court has similarly held that execution of individuals who are intellectually disabled is a violation of the Eighth Amendment.[22] In *Atkins*, the Court held that individuals who are unable to achieve the requisite mental status are inherently less culpable, based on scientific evidence.[23] The Court recently held that the Eighth Amendment may bar execution of an individual who develops dementia during his/her imprisonment if they are unable to "rationally understand" the reason for the execution.[24] In this same decision, the Court specified that inability to remember the crime was not alone sufficient to constitute an Eighth Amendment violation.[25] This case applies to those who develop dementia after the crime. The case does not specify protections for those who are experiencing symptoms due to dementia at the time of the crime.

ALTERNATIVE MODELS TO SENTENCING: DIVERSION PROGRAMS

Diversion programs systematically reroute individuals from the criminal system into an alternative system, including treatment programs.[26] Diversion can occur either "pre-booking," through crisis alert teams, or post booking.[27] Generally, diversion programs integrate treatment programs aimed to address underlying factors of criminal behavior, including mental health or substance abuse. Evidence varies regarding the effectiveness of these programs to reduce recidivism.[28] Despite this, a majority of states have implemented pre-trial diversion programs that are either population specific (i.e., for substance abuse or individuals with psychiatric illness) or general programs.[29]

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LIMITATIONS OF CATEGORICAL PROTECTIONS

The categorical protections for juveniles and individuals with psychiatric illness are imperfect at mitigating consequences of the criminal justice system. For example, categorical protections are not absolute or universal for juveniles. Juveniles may be tried as an adult for more serious offenses, including rape and homicide. Additionally, states vary regarding their process and guidelines for transferring juveniles to the adult criminal justice system, including variations on age requirements.[30] Broadly, categorical protections are inconsistently applied. Stigma, judgement, and abuse of protections leads to broad judicial disfavor of protections, including the insanity defense. Lastly, even when protections are successful, criminal and health systems lack appropriate resources to provide necessary services to individuals with psychiatric illness and juveniles. Therefore, it would be a mistake to merely broaden these current categorical protections to encompass individuals with dementia. Instead, concepts imbedded within these models can inform a more effective method of providing protections tailored to individuals with dementia who enter the criminal justice system.

Dementia and Criminal Behavior

Dementia is a heterogeneous syndrome caused by diverse pathologies, including Alzheimer's disease, frontotemporal lobar degeneration (FTLD), vascular disease, and Lewy Bodies Disease.[31] Symptoms associated with dementia may include memory impairment, decline in executive function, impaired judgement, and behavioral symptoms.[32] While there may be some common features of distinct pathologies of dementia, symptom presentation and disease progression vary between individuals. Behavioral symptoms (i.e., loss of apathy) are more common in FTLD. These symptoms may increase the potential for behaviors that violate social norms and are labeled "criminal."[33] One study reported that 8.5% of patients treated at a single neurobehavioral clinical experienced symptoms that could be interpreted as "criminal."[34] Anecdotal reports reflect the factual situations of how symptoms emerge as criminal behavior. For example, in 2017 a defendant with FTLD plead guilty to charges for possessing child pornography in Minneapolis.[35] In 2016 an 87-year old man was deemed unfit to stand trial for killing his wife, potentially as the result of dementia related confusion.[36] A brief description of the epidemiology and clinical onset of Alzheimer's disease and FTLD will provide additional context.

Nearly 5.7 million people in the United States carry a diagnosis of Alzheimer's disease, the most common cause of dementia.[37] Alzheimer's disease typically affects individuals over the age of 65, however, a significant minority experience early age-of-onset Alzheimer's disease.[38] Alzheimer's disease is clinically characterized by an early presentation of memory loss. As the disease progresses, individuals may experience challenges with language, visuospatial skills, and executive function.[39] Impaired executive function and memory loss increase the risk of criminally vulnerable behavior (i.e., shoplifting or unsafe driving).[40]

FTLD is a leading cause of young onset dementia (e.g., symptom onset < 65 years old), with a prevalence of approximately 15-22 people per 100,000 adults between the ages of 45-65 in the United States.[41] FTLD has three distinct variants that relate to unique clinical presentation, including behavioral-variant FTD (BvFTD), non-fluent variant primary progressive aphasia, and semantic-variant primary progressive aphasia.[42] BvFTD is clinically associated with early changes in personality, a loss of empathy or sympathy, compulsive behavior, and executive dysfunctions. FTLD, particularly BvFTD, may cause symptoms that violate social norms (i.e., inappropriate sexually suggestive comments).[43]

Regardless of the underlying pathology, the progressive and insidious nature of the syndrome, the heterogeneous presentation, lack of insight that may accompany the illness, and unavailability of disease modifying therapies raise unique challenges for evaluating criminal culpability and sentencing. Dementia begins with a prodromal stage of illness (i.e., mild cognitive impairment) characterized by subtle to mild symptom presentation that indicate a decline from baseline. Individuals' who are suffering from the prodromal stage are less likely to carry a diagnosis but may still experience behavioral symptoms. Additionally, symptoms within a prodromal stage may not be readily identifiable by others, including police officers and first responders. As a result their symptoms, and those of individuals through the disease progression, may be misinterpreted. A mishandling of behavioral symptoms by others can further aggravate circumstances — particularly if the individual lacks insight into their illness.

Heterogeneity of dementia among individuals and pathologies make it difficult to provide clear guidance to stakeholders when attributing behavior to dementia versus intentional actions. Importantly, for the purposes of determining mental status to be culpable for a criminal action, the diversity in symptoms may lead some individuals to maintain capacity to form intent, while other individuals may lack such a capacity. For example, for some individuals dementia will result in memory loss and confusion that leads to actions that the individual did not know were socially inappropri-

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ate or criminal. Comparatively, others' symptoms will lead to an action that is factually understood to violate a social norm, but the individual will lack the emotional appreciation of consequences or impulse control to cease the behavior.

Proposed Approaches and Discussion

Criminal culpability is assigned when an individual's actions violate a social norm that has been legally codified as a crime. While an individual's actions may factually be criminal, there is an instinctual understanding that individuals who commit crimes due to underlying cognitive or neurological differences should be protected from criminal liability and sentencing. Categorical protections reflect a social responsibility to shield vulnerable populations from adverse consequences of the criminal system. The similarities between juveniles, individuals with psychiatric illness and individuals with dementia is a lack of ability to establish genuine *mens rea*. The next two sections will evaluate and argue for categorical protections for individuals with dementia, including affirmative defenses and sentencing restrictions. A distinct population defined according to objective or subjective criteria is necessary to apply categorical protections.

Dementia as a Categorically Distinct Population

Individuals with dementia are at an increased risk for harms from inappropriate criminal prosecution and sentencing. In addition to likely negative clinical outcomes, mismanagement of criminal behaviors in individuals with dementia may further stigmatize the population. It is important to recognize that individuals with dementia do not have an increased volition to commit crimes. Instead dementia symptoms result in behaviors or actions that may be labeled as "criminal." For example, an individual with dementia due to Alzheimer's disease does not develop a new desire to shoplift. However (s)he may forget to pay for an item before leaving a store and, as a result, commit a theft.

Current scientific evidence could support a judicial determination that dementia impedes an individual's ability to establish *mens rea*, based on similar grounds as judicial determinations that juveniles are distinct from adults. Dementia, with its diverse pathologies, may cause a range of symptoms and cognitive impairments. Individuals with dementia may experience impaired judgement and be more easily influenced by others.[44] Other individuals, particularly those suffering from FTLD, may experience impulsive behavior.[45] Additionally, some individuals may experience hallucinations, including those suffering from dementia with Lewy Bodies.[46] These diverse behavioral and cognitive symptoms increase the likelihood that an individual's actions could constitute a criminal action — despite lacking the ability to establish intent.

Categorical protections are appropriate for distinct populations that can be defined by specific criteria distinguishing a population from the general public. Criteria can be either objective or subjective. Objective criteria rely on a specific measurement that does not require interpretation. For example, juveniles are defined by age, generally the age of eighteen.[47] Alternatively, some criteria are subjective — thus requiring interpretation or a fact finding body (i.e., a jury) to determine whether an individual is within the population. The insanity defense requires a defendant to provide by a "preponderance of evidence" that (s) he suffered from a psychiatric illness at the time of the crime.[48] Comparatively, there may be a hybrid approach using expert opinion and validated measures to define criteria for whether an individual is within the population for purposes of categorical protections based upon a dementia syndrome.

Dementia is defined according to diagnostic criteria, which may support a model that adopts expert opinion using standard clinical evaluations.[49] Diagnostic criteria rely on evaluations of an individual's ability (or inability) to complete activities of daily living (i.e., bathing) or instrumental activities of daily living (i.e., grocery shopping). Diagnostic standards rely on clinical interviews with individuals and their caregivers (i.e., family members) to accurately report symptoms and behaviors. Neuropsychiatric examines can support a diagnosis by identifying specific areas of cognitive deficits.[50] Additionally, tools like the Clinical Dementia Rating, a validated measurement tool evaluating six cognitive categories, may provide a standardized approach to determining whether individuals meet criteria for dementia.[51] While the CDR relies on subjective data (structured interviews with patients and informants), it produces a specific score that rates an individual along the spectrum from cognitively healthy to dementia. This would mitigate the role of a subjective determination by a fact finder and instead support a definition that is based on expert opinion.

While scientific evidence may support judicial determinations that dementia impedes the ability to establish *mens rea*, some challenges in defining the population may persist. First, dementia is often undiagnosed. In 2018, one study reported that nearly 60% of individuals with dementia were undiagnosed or unaware of the diagnosis.[52] In this context, an event that leads to criminal actions may predate a diagnosis of dementia. For example, imagine that a 65-year-old man inappropriately grabs a waitress at a local restaurant. The police are called to the restaurant and

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he is arrested. Other than the incident, his behavior seems normal. The (now) defendant seeks out medical care after the event and learns he has FTLD and that his behavior at the restaurant may have been a result of the illness. The defendant and his legal counsel would likely face challenges demonstrating that he was experiencing symptoms at the time of an incident that justify mitigating culpability for the action. Additionally, high rates of undiagnosed dementia impede potentially beneficial preventative policies that rely on linking a diagnosis of dementia to first responders' (i.e. police) records to alert them of a diagnosis at the time of an incident.

Second, the progressive and insidious natures of dementia raise questions regarding the severity of disease required to warrant categorical protections. Dementia is the most severe stage within a spectrum of cognitive impairment. Individuals who progress to dementia, likely experienced mild and moderate stages of cognitive impairment prior to meeting criteria for dementia. For example, an individual within the earliest stages of Alzheimer's disease may experience occasional memory loss that would not meet criteria for dementia on validated test measures. This raises policy questions of whether an individual must meet diagnostic criteria for dementia to benefit from categorical protections. Or, would protections apply if a defendant can provide credible evidence that links cognitive impairment to the criminal behavior? As a result, any criteria for protections must establish a threshold or factors that consider the progressive nature of the syndrome and stages of impairment that precede meeting clinical criteria for dementia. Additionally, due to the progressive nature individuals with dementia are unlikely to benefit from any rehabilitative or treatment alternatives to sentencing. This critically distinguishes dementia from age or psychiatric illness as a mitigating factor. Policy justifications for applying categorical protections to juveniles or individuals with psychiatric illness have relied, in part, on the potential for rehabilitation and treatment.

The clinical heterogeneity of the syndrome is a third challenge to defining the population for categorical protections. Dementia, a syndrome defined by its impact on an individual's ability to manage his or her activities of daily living, encompasses a diverse set of symptoms and underlying disease pathologies. The diversity of symptoms among individuals with dementia, or cognitive impairment more broadly, make it difficult to define specific behaviors or symptoms that are required to establish categorical protections. Additionally, individuals may have varying degrees on insight into their condition. The heterogeneity of symptoms will also influence an individual's understanding of right and wrong. For example individual with FTLD may understand a behavior is "wrong" — yet lack the inhibition needed to refrain from the behavior.[53] Therefore, compared to psychiatric illnesses, with a threshold of understanding whether an action was right or wrong, the symptoms associated

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with some dementias may not meet these criteria. The heterogeneity in the disease will require policies to frame criteria to allow for protections based on individual disease presentation where evidence supports a finding that a behavior was the result of an underlying illness likely to impede *mens rea*.

Concretely, these three characteristics of dementia (undiagnosed persons, progressive nature, clinical heterogeneity) impede a consistent and reliable definition of dementia that uses a measure as objective as age. However, using subjective criteria that relies on standard fact finders (judges or juries), who lack training to understand the complexities of dementia, will be fraught with errors. The complexities associated with defining a population for purposes of categorical protections does not remove a societal responsibility to extend such protections. Individuals with dementia are vulnerable to systematic abuse, are more likely to lack capacity to assert their rights (i.e., Miranda rights), and may lack capacity to stand trial. The societal obligation to protect vulnerable populations creates a duty to establish categorical protections that integrate a population sensitive and specific approach to determining whether an individual meets criterion.

A hybrid approach that integrates clinical evaluations and expert opinions may mitigate the challenges delineated above. Clinical evaluations and expert opinions could support objective criteria collected through validated measures and the subjective evaluation of a trained dementia expert.[54] Here we propose that clinical evaluations use adapted diagnostic criteria to identify cognitive impairment, including dementia, that in the dementia expert's opinion would have likely been the cause for a given behavior. This would allow for stakeholders, including prosecutors or defense attorneys, to request testing where issues of dementia or cognitive impairment are raised even in the absence of an existing diagnosis.

Categorical Protections

In this article we have used the term "categorical protections" to mean to systematic protections applied to a population that mitigate the criminal culpability due to evidence of a lack of *mens rea*. Categorical protections applied to juveniles (mitigated culpability) and individuals with psychiatric illness (alternative sentencing). These models are consistent with the underlying characteristics of these populations, including the potential for rehabilitation or treatment. These same characteristics do not apply to dementia, a progressive syndrome without available disease modifying therapy. As a result, categorical protections for individuals with dementia must reflect the unique characteristics of the population. Here we evaluate the potential off applying specific categorical protections to individuals with dementia, including: defenses that mitigate or excuse culpability, alternatives to sentencing, and preventative measures.

AFFIRMATIVE DEFENSES: "NOT GUILTY BY REASON OF DEMENTIA" AND THE AUTOMATISM DEFENSE

Affirmative defenses acknowledge that a defendant has factually committed a crime (*actus reas*) but argue that an individual is not culpable based on a lack of or reduced *mens rea*. Two affirmative defenses are particularly relevant for individuals with dementia: creating a plea for "not guilty" by reason of dementia and the automatism defense. A plea of "not guilty" by reason of cognitive impairment or dementia could excuse criminal culpability, mirroring "not guilty" by reason of insanity defenses. The automatism defense could serve as an alternative affirmative defense for individuals with dementia. As described above, the automatism defense argues that an individual's illness or syndrome resulted in compulsive behavior (i.e., sleep walking). This defense would apply particularly well to people FTLD who may lack impulse control needed to prevent socially inappropriate actions, *even if they know the action was "wrong."*

Affirmative defenses shift a burden of proof to the defendant to demonstrate that (s)he meets the standard for a "not guilty" pleaor the automatism defense. It is then the fact finders' (judge or jury) responsibility to determine whether an affirmative defense applies. The defense would thus require presentation of credible expert testimony to educate juries and the judiciary regarding symptoms associated with dementia that may not be consistent with the lay understanding of the syndrome. As a result, a lay understanding of dementia may limit the effectiveness of affirmative defenses. The burden of proof may be particularly challenging for individuals whose clinical presentation is not consistent with the stereotype of dementia. This challenge will be heightened for those with young-onset dementias, including FTLD, who may present as "healthier" than a lay fact finder's expectation.

ALTERNATIVE SENTENCING

The judicial history that limits sentencing for juveniles may provide precedent for similar restrictions on sentencing for individuals with dementia. In *Roper* and *Miller*, the Supreme Court adopted a proportionality analysis to support a finding that mandatory life sentences and the death penalty constitute cruel and unusual punishment, an Eighth Amendment violation.[55] The proportionality analysis states that a punishment is cruel and unusual if it "is judged to be

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excessive given the nature and circumstances of the crime."[56] This analysis is informed by the harm of the crime as well as the "blameworthiness of the perpetrator." Like juveniles, individuals with dementia may justifiably have diminished blameworthiness based on scientific evidence that symptoms impede their capability to establish the requisite mental status. With *Roper* and *Miller* as precedent, the judiciary could adopt the proportionality analysis to restrict extreme sentences (i.e., the death penalty and life sentences) for individuals with dementia. However, these limitations would insufficient to prevent lesser sentencings, including incarceration, for individuals with dementia. Further research is needed to identify appropriate sentencing measures that would provide public safety protections without causing adverse harms to individuals with dementia.

sentencing alternatives

Alternative approaches to sentencing offer an opportunity to mitigate the consequences of inappropriate incarceration of individuals with dementia. The diversion program model may be well suited to address sentencing challenges. Such programs provide a mechanism to protect public safety while mitigating Eighth Amendment violation concerns. Unlike programs for individuals with psychiatric illness or juveniles, programs for individuals with dementia would need to determine goal of treatment without the purpose of rehabilitation. The progressive nature of dementia, without the availability of disease modifying therapy, requires an emphasis on symptom management. Given the complexities in symptom and behavior management in dementia, staffing for diversion programs should prioritize trained dementia experts.

Protection of individual rights and autonomy are pivotal to ethically meeting the social obligation of protecting individuals with dementia and the implementation of diversion programs. The availability of long-term care facility placement could be a tempting and practical solution to provide alternative solutions to incarceration. However, involuntary placement may be more akin to incarceration and would not accomplish the intended benefits imbedded in diversion programs. Importantly, involuntary facility placement may not be consistent with the individual's values or meet their best interests to optimize their quality of life. Alternative options may include programs that provide increased monitoring through outpatient or home visits. Additionally, in extreme circumstances, where an individual is unsafe to remain in the community the individual will likely also be unsafe to reside among other vulnerable populations. Therefore, innovative approaches to housing for this subset will require novel and creative solutions.

prevention strategies

Police and first responders are ill-prepared to identify and address individuals' needs resulting from dementia.[57] A failure to appropriately manage a situation can lead to escalation and cause harm to the individuals involved. In prior studies, researchers have demonstrated that police officers feel underequipped to manage incidents where an individual is suffering from symptoms associated with dementia.[58] Additionally, researchers have demonstrated beneficial outcomes from training police in the management of circumstances involving individuals with dementia.[59] Training that increase police officers' fluency with dementia-related illnesses and provide tools to manage circumstances with an individual with dementia would improve individual outcomes.

A mechanism to alert local agencies of individuals with a diagnosis of dementia would provide stakeholders with information needed to appropriately manage otherwise complex situations. Practically, if a diagnosis of dementia triggered a reporting to local agencies attached to an individual's identification — this information would be part of first responders' information at a scene. With appropriate training, a first responder who is provided information regarding an individual's diagnosis would be equipped to diffuse a situation and provide services if needed. This would also provide an opportunity for officers to identify incidents where an individual with dementia is vulnerable to harm (i.e., lost or separated from a caregiver). However, a reporting system would raise issues of privacy and potentially increase stigma. The balancing of the public safety benefits for the individuals and others in contrast to privacy concerns would need a fuller evaluation, which we will save for future articles.

Conclusion

Criminal law and health policy have long been treated as two separate worlds. Yet the potential health related outcomes of individuals with dementia subjected to the criminal system raise health related policies. A failure to address a gap in policies that support appropriate management of individuals with dementia reflects a failure in our social obligation to care for those who are most vulnerable amongst us. Not all individuals with dementia will commit crimes. Statistically, most will not. However, dementia related symptoms may lead to behaviors that violate social norms and constitute criminal activities. Unfortunately, the criminal justice system is wholly unprepared. A lack of preparedness has led to inconsistent treatment for these

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vulnerable defendants. Consensus must be reached — there is a need for appropriate accommodations for persons with dementia who cannot form *mens rea*. Categorical protections, informed by precedent models applied to juveniles and individuals with psychiatric illness, could help meet a social obligation to provide protections to individuals with dementia. We propose an approach that integrates affirmative defenses to mitigate criminal liability and sentencing restrictions to prevent cruel and unusual punishment. New policies and related criteria must be tailored to the nuances of dementia as a syndrome and flexible to adjust to individual circumstances.

Note

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