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BEHAVIORAL HEALTH LITERACY

A New Construct To Improve Outcomes Among Incarcerated Individuals

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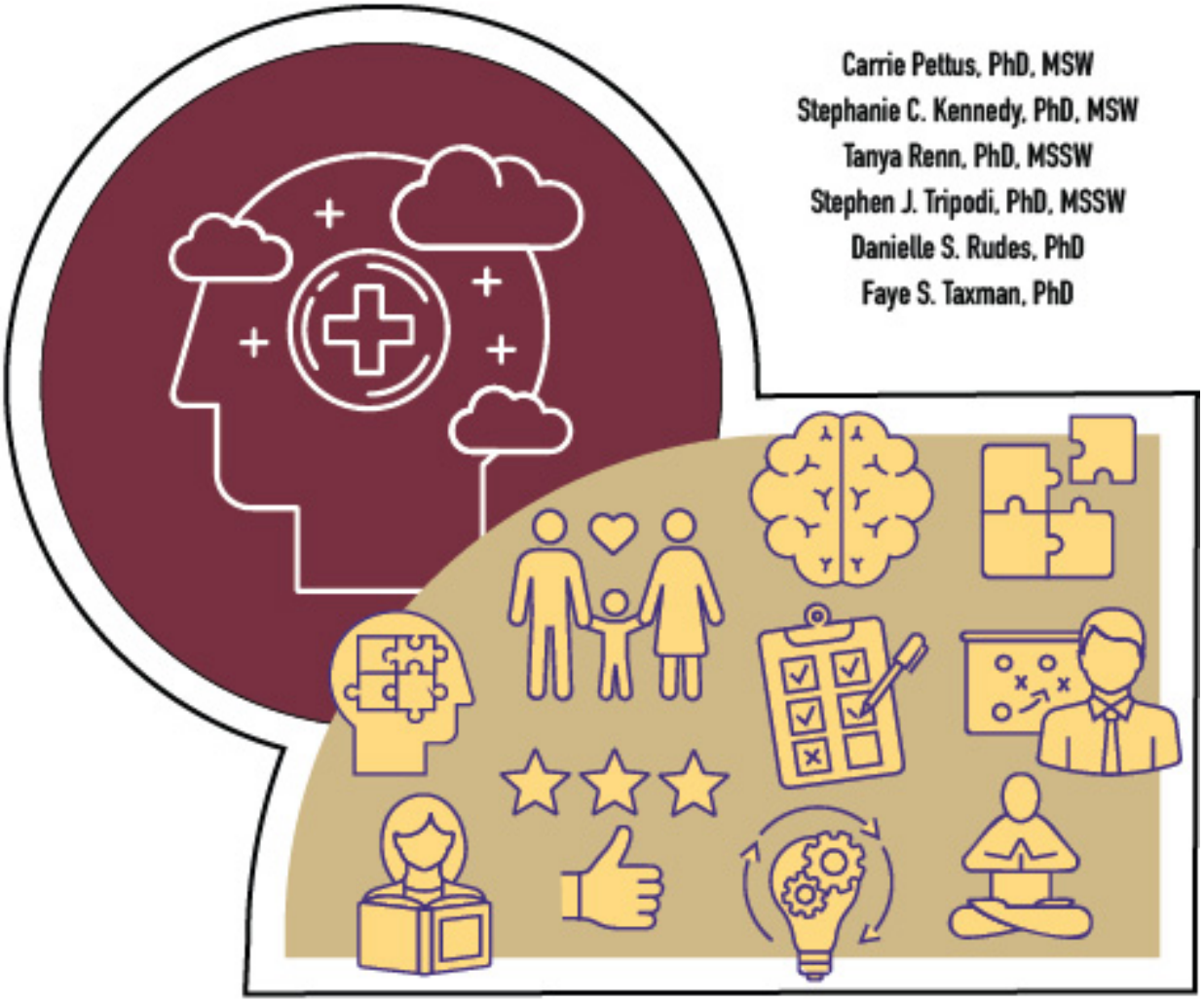

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Abstract

Background: On any given day, nearly 1.8 million adults are incarcerated in state prisons and nearly 11 million more are admitted into and released from local jails each year with significant negative public health consequences across the United States. Incarcerated individuals have disproportionate rates of behavioral health disorders (BHDs); untreated BHD symptoms bring people into incarceration settings and are associated with re-arrest after release. Although an incarcerated individual's lack of motivation to seek out and engage in BHD treatment is often used to explain these outcomes, individuals may have limited knowledge about BHDs and their symptoms, when and why treatment is warranted, and how to access treatment during custody and in the community.

Results: We propose a new construct called behavioral health literacy to facilitate linkage between individuals with BHDs and appropriate treatment options. In this paper, we define behavioral health literacy, review extant literature, describe why behavioral health literacy is needed, and explore how behavioral health literacy interventions may be developed to expand research knowledge and guide both policy and practice in the field.

Conclusions: Behavioral health literacy is an innovative construct designed to guide the development, implementation, and testing of interventions to increase knowledge about BHDs and their symptoms, facilitate speedy treatment linkage for individuals during custody and in the community after they release from incarceration, and ultimately improve both behavioral health outcomes and reduce criminal legal system involvement. Increasing behavioral health literacy among currently and formerly incarcerated individuals has the potential to disrupt the churn of incarceration, release, and reincarceration, enhancing both public health and public safety.

Keywords: Behavioral Health Literacy, Mental Health, Substance Use Disorder, Incarceration, Reentry

BEHAVIORAL HEALTH LITERACY
A new construct to improve outcomes among incarcerated individuals

On any given day, nearly 1.8 million adults are incarcerated in state prisons and nearly 11 million more are admitted into and released from local jails each year with significant negative public health consequences across the United States (Carson, 2020; Zeng, 2019). Incarcerated individuals have disproportionate rates of mental health and substance use disorders, otherwise known as behavioral health disorders (BHDs; Bronson & Berzofsky, 2017; Bronson, Stroop, Zimmer & Berzofsky, 2017; Steadman et al., 2009). Individuals experiencing symptoms of BHDs are at increased risk for police contact and arrest, incarceration often worsens individuals' symptoms during custody, and untreated BHD symptoms are associated with increased rates of re-arrest after release (Massoglia & Pridemore, 2015; Wilson et al., 2011). Further, because incarceration disproportionately affects individuals of color, incarceration both creates and exacerbates documented BHD racial health disparities (Massoglia, 2008). These racial health disparities extend beyond the individuals our nation incarcerates to negatively affect their intimate partners and children, shaping community health and fueling generations of health disparities (Boch et al., 2021; Lee & Wildeman, 2021; Wildeman & Wang, 2017).

Despite exceedingly high rates of BHDs among those who are incarcerated, few prisons are able to meet the demands for treatment; fewer than half of individuals identified as requiring mental health or substance use disorder treatment receive various types of clinical and non-clinical care (e.g., self-help groups, case management services, psychoeducation, professional counseling, or medication) during custody (Bronson & Berzofsky, 2017; Taxman, Perdoni & Harrison, 2007). Jail settings are even less likely than prisons to provide screening or treatment for BHDs to their residents, citing challenges with capacity and logistics (Center for Substance

Abuse Treatment, 2005; Taxman et al., 2007). However, as incarceration is one causal factor in the United States' widening health inequities, not activating prisons and jails as a leverage point for screening and intervention represents a profound missed opportunity (Wildman & Wang, 2017). Incarceration settings could be leveraged to prevent the worsening of BHD symptoms for millions of individuals and reduce behavioral health disparities by providing services during custody, connecting individuals to treatment after release, or providing self-management skills to enhance coping when no treatment is available. The churn of incarceration, release, and reincarceration will not be disrupted without addressing the many common BHD symptoms which bring people into contact with the criminal legal system.

One common misperception about individuals with BHDs who make contact with the criminal legal system is that they lack motivation to seek out and engage in BHD treatment during incarceration (Meyer et al., 2014; Mitchell & Latchford, 2010; Morgan, Rozycki & Wilson, 2004) and in community settings (Owens et al., 2018). This notion, paired with a range of treatment barriers including lack of both health insurance and transportation, is often used to explain low rates of treatment access and engagement in the community among individuals involved in the criminal legal system (Belenko, Hiller, & Hamilton, 2013; Dearing & Twaragowski, 2010; Meyer et al., 2014). However, low BHD help-seeking and treatment engagement among this population may also be better explained by individuals' limited understanding of BHDs and when and how to access appropriate treatments. For example, instead of having an established system for assessing and treating BHDs in prisons and jails, incarcerated individuals are often responsible for recognizing their own BHD symptoms, understanding their own treatment needs, and then identifying and accessing existing community resources after their release. Thus, even a highly motivated individual simply might encounter barriers to searching out, accessing, and engaging in treatment.

To bridge this gap, we propose a new construct called behavioral health literacy to guide intervention development and facilitate linkage between individuals with BHDs and appropriate treatment options. We define behavioral health literacy as an individual's capacity to obtain, process, and understand basic behavioral health information and to become aware of supports, symptom management, services, and treatment options for helping to redress potential negative impacts of BHDs. By defining this construct, we identify an intervention that advances treatment readiness by focusing on understanding the disease and ailment as part of an effort to also foster engagement in appropriate treatment services and self-management. The purpose of the construct is to guide the development, implementation, and testing of interventions to increase knowledge about BHDs and their symptoms, facilitate linkage to treatment when appropriate, and ultimately improve both behavioral health outcomes and reduce criminal legal system involvement. This definition builds upon the health and mental health literacy literature and fills substantive gaps in both constructs. In this paper, we provide a review of extant literature on BHD and health literacy, describe why BHD literacy is needed, and explore how BHD literacy can expand research knowledge and guide both policy and practice in the field.

Background

BHDs among incarcerated individuals. Disproportionate rates of untreated symptoms of BHDs fuel the cycle of incarceration and reincarceration for many individuals. For example, a striking 50% of incarcerated individuals have been identified as having a mental health disorder (Bronson & Berzofsky, 2017) which is substantially elevated when compared to prevalence of mental health disorders in the general public (21%; National Institute of Mental Health, 2021). Further, substance use disorders are reported at epidemic rates; national prevalence data indicate 65% of incarcerated individuals have substance use disorders compared to 12% of the general public (Bronson et al., 2017). Co-occurring BHDs are also extremely common, with 41 to 68%

of incarcerated samples (in prison- and jail-based studies) having both mental health and substance use disorders (McNiel & Binder, 2007; Mir et al., 2015; Smith & Trimboli, 2010) compared to 24% of non-incarcerated individuals (Bronson & Berzofsky, 2017).

Individuals with BHDs are more likely to experience multiple incarceration events, thus any effort to reduce the reach and size of our criminal legal system must include tailored approaches to redirect individuals with BHDs into systems of public health care. Untreated symptoms of BHDs including aggression, impulsivity, limited coping efficacy, anger, depression, anxiety, problematic substance use, post-traumatic stress disorder, poor emotional regulation, and poor interpersonal functioning (Breslau, 2009; Dube et al., 2003; Medrano, Hatch, Zule, & Desmond, 2002; Otto, O'Cleirigh & Pollack, 2007). These symptoms undoubtedly contribute to high reincarceration rates (e.g., Clark, Reiland, Thorne, & Cropsey, 2013; Combs et al., 2019; Najavitz & Walsh, 2012; Sadeh & McNeil, 2015). More than half (52%) of incarcerated adults with BHDs have at least one prior incarceration, compared to 31% of those without BHDs (King, Tripodi, & Veeh, 2018; Veeh, Tripodi, Pettus-Davis, & Scheyette, 2018). Individuals with BHDs are more likely to be incarcerated for crimes associated with public nuisances, homelessness, and being under the influence of drugs and alcohol; these individuals are also more likely to be reincarcerated for violating the terms of their post-release supervision (i.e., probation or parole; Califano, 2010; James & Glaze, 2006; Karberg & Glaze, 2002; Longshore & Teruya, 2006). Incarcerated adults with BHDs tend to be incarcerated longer than others charged with similar crimes (King et al., 2018) and are reincarcerated more quickly when compared to individuals without BHDs (Califano, 2010). Between 20 to 25% of individuals with BHDs are reincarcerated within the first year of release compared to 9 to 12% of those without BHDs (Mallik-Kane & Visher, 2008).

The presence and impact of BHDs have serious consequences beyond criminal legal system-involvement for incarcerated individuals. Suicide is the leading cause of death for incarcerated individuals (Mennicke, Daniels & Rizo, 2021; Power et al., 2016; Zhong et al., 2021), with estimates suggesting that suicide comprises between 34 to 50% of all deaths which occur in custodial settings (Friestad, Ase-Bente & Kjelsberg, 2014; Noonan, Rohloff, & Ginder, 2015). The highest reported rates of suicide are among jail residents when compared to both prison residents and members of the general public (Hedegaard, Curtin, & Warner, 2021; Noonan et al., 2015). Further, the days and weeks following release from incarceration also carry extraordinarily high risk for death. Individuals leaving incarceration are 12.7 times more likely to die in the two weeks following their release when compared to other state residents (Binswanger et al., 2007). These deaths are driven by drug overdose fatalities, with estimates suggesting that the adjusted relative risk of death from overdose was 129 among those releasing from prison when compared with other state residents (Binswanger et al., 2007). Physical illness, homicide, suicide, and motor vehicle accidents are additional drivers of death after release from incarceration (Pettus-Davis & Kennedy, 2019); the relative risk for death is highest among women (RR=5.5), younger individuals (25 to 34 years old at the time of release; RR=4.8), and those identified as White (RR=3.8; Binswanger et al., 2007).

Screening and treatment for BHDs during incarceration. Despite high prevalence of BHDs among incarcerated individuals, screening for BHDs is far from universal. Although state prison systems have a screening process to identify individuals with BHDs where referral to services depends on the treatment available in the prison system, only a third of jails provide any screening for BHDs at any point during custody (Bronson & Berzofsky, 2017; Bronson et al., 2017; Center for Substance Abuse Treatment, 2005). Further, even in prison settings with a screening process, fewer than 10% of the individuals identified as needing substance use disorder

treatment receive it during custody (Taxman et al., 2007). Likewise, only 16% of individuals identified as needing mental health treatment receive treatment during their incarceration (Taxman et al., 2007). Pharmacotherapy rates in prison are also low, even among individuals who arrive at prison with knowledge of their BHD and an established prescription for treatment. Reingle, Gonzalez and Connell (2014) note that more than 50% of individuals medicated for mental health conditions at prison admission received no medication during custody. A majority of behavioral health treatment offered within correctional facilities appears to focus on 12-step self-help groups and educational programming, rather than professional services (Center for Substance Abuse Treatment, 2005; Taxman et al., 2007).

In addition to the lack of universal screening procedures for BHDs in correctional settings, several other factors contribute to individuals not receiving treatment for BHDs while incarcerated. Those factors include: 1) limited identification of BHDs due to the under reporting of symptoms and staff believing people disclose BHDs as an excuse; 2) treatment demands far outstrips supply; 3) individuals' removal from treatment due to their refusal to participate, behavior problems (within or outside of treatment), change in custody level, or because program or work assignments interfere with available treatment options; and 4) correctional officers are the gatekeepers who determine whether incarcerated individuals are escorted to treatment or screening for treatment – if the officers do not believe the residents have a BHD or need treatment, they sometimes interfere with treatment access (Daquin & Daigle, 2018; Reingle Gonzalez & Connell, 2014).

After release from incarceration, some incarcerated individuals are mandated to receive community-based BHD treatment (e.g., they release to probation or other forms of community supervision). However, in general the criminal legal system relies on individuals to recognize their own BHD symptoms, identify suitable community-based treatment options, and pursue

treatment on their own (Meyer et al., 2014; Owens et al., 2018). Although the absence of accessible community-based BHD treatment providers in many areas is well-documented, it remains unclear whether individuals leaving incarceration are able to recognize any symptoms they might be experiencing as symptoms of a BHD, thus complicating their ability to seek appropriate treatment in the community.

What is Behavioral Health Literacy?

We define behavioral health literacy as an individual's capacity to obtain, process, and understand basic behavioral health information and to become aware of supports, symptom management, services, and treatments that are options for helping to redress potential negative impacts of BHDs. The purpose of the behavioral health literacy construct is to guide the development of interventions designed to help individuals understand BHD, recognize their own symptoms of BHDs, use self-management techniques, and seek out potential avenues to decrease their symptoms and optimize their well-being. This definition is compatible with the literature on health literacy and mental health literacy. Below, we examine the state of the literature and identify the critical gaps to which the proposed definition of behavioral health literacy responds.

Health literacy. Health literacy affects an individual's capacity to obtain, process, and understand basic health information and what services are needed to make appropriate health decisions (Kindig, Panzer & Nielson-Bohlman, 2004; Parker, 2000). The health literacy construct was developed in the 1970s and was initially understood as a function of literacy. Health literacy was developed to gauge an individual's ability to recognize physical health conditions, seek out and comprehend information about those conditions, and understand and adhere to medical professionals' treatment recommendations (DeWalt et al., 2004; Parker, 2000). Since that time, at least 17 different definitions of health literacy have been proposed of which three were identified in a systematic review as the most frequently cited (Sørensen et al., 2012).

These include definitions provided by the American Medical Association, the World Health Organization, and the Institute of Medicine. The American Medical Association (1999) characterizes health literacy as the “constellation of skills, including the ability to perform basic reading and numeral tasks required to function in the healthcare environment" (p. 552). In 1998, the World Health Organization defines it as the “cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information in ways which promote and maintain good health” (Nutbeam & Kickbusch, 1998, p. 357). And the Institute of Medicine (2004) describes health literacy as an “individuals' capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions” (p. 2).

More recently, the health literacy construct has been expanded to include individuals within the context of the health systems with which they interact (Kickbusch, Pelikan, Apfel & Tsouros, 2013; Kindig et al., 2004; Sørensen et al., 2012). Health literacy is now understood as a mechanism for not only improving individual health outcomes, but also for decreasing population-level health inequities, developing health policy, and improving health systems to maximize accessibility. The World Health Organization further identifies health literacy as possibly the most potent predictor of many social determinants of health, noting how health literacy is “a stronger predictor of an individuals’ health status than income, employment status, education and racial or ethnic group” (Kickbusch et al., 2013, p. 7). By including systems-level factors, health literacy is now an asset that can be developed and enhanced through education, rather than a simple risk factor for poor health outcomes based on an individual’s failure to adhere to treatment recommendations (Kutcher, Wei, & Coniglio, 2016).

Low health literacy is a significant problem in the United States, affecting an estimated 36% of adults in the general population for a range of physical health disorders (Kutner,

Greenburg, Jin & Paulson, 2006). Low health literacy is linked to poorer management of chronic disease symptoms, lower preventive care access, and higher rates of hospitalizations (DeWalt et al., 2004; Berkman et al., 2011a; Sorenson et al., 2012). Health literacy among incarcerated populations is exceptionally low, with low health literacy estimated at 60% for those incarcerated (Sorenson et al., 2012).

Recent systematic reviews find that health literacy interventions are promising and lead to positive outcomes such as increased preventive care access, medication adherence, and lower rates of emergency department use for a variety of at-risk or marginalized populations (Berkman et al., 2011b; Sheridan et al., 2011). Research on improved outcomes related to health literacy interventions underscores the potential positive impact that behavioral health literacy interventions could have for people with BHDs (Hadden et al., 2018). Health literacy is also suggested as a mediator to explain existing racial health disparities in many common physical health outcomes, underscoring the need to increase health literacy among those at highest risk (DeWalt et al., 2004).

Mental health literacy. Mental health literacy (Jorm et al., 1997) is mostly focused on helping those without BHDs to recognize the signs and symptoms of mental health disorders in other people as a means to guide others to community supports or treatment (Kutcher et al., 2016). When mental health literacy interventions are implemented, there are improvements in symptom recognition among individuals and increased help-seeking in the community by their loved ones, coworkers, and peers with BHDs (Jorm, 2012). Jorm and colleagues (1997) coined the term mental health literacy and defined the construct as the public's "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" in other individuals (p. 182). Further, Jorm and colleagues (1997) suggestedhat mental health literacy "includes the ability to recognize specific disorders; knowing how to seek mental health

information; knowledge of risk factors and causes, of self-treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking" (p. 182).

Like health literacy, the definition of mental health literacy has been refined somewhat since it was initially proposed. Jorm (2012) expanded the foundational definition to include knowledge about specific mental health conditions to aid prevention, early recognition, self-help strategies for mild-to-moderate symptoms, and how to provide help to aid others, especially those approaching a crisis state. Other dimensions of the mental health literacy construct include a consideration of those skills, capacity, and cognitions which might promote positive mental health for individuals in the community and enacting health policies designed to promote population-level well-being (Kutcher et al., 2016). Scholars have also proposed to include stigma as an additional dimension to the mental health literacy construct as stigma drives prejudiced attitudes and discriminatory behavior towards those experiencing acute or chronic symptoms (Link & Phelan, 2001; Thornicroft, 2012). Both provider stigma (Wang et al., 2018) and internalized stigma (Drapalski et al., 2013) have been explored as potential mechanisms driving low rates of treatment utilization among individuals with mental health disorders.

Why Behavioral Health Literacy Is Needed

The World Health Organization examined data from 28 developed and developing countries and found that only a minority of individuals received treatment within the first year of BHD symptom onset (Wang et al., 2007). Ample evidence underscores the significant role that BHDs play in an individual's trajectory toward incarceration and re-incarceration after release. Limited screening, assessment, and treatment of BHDs in incarceration settings are likely only one contributor to the intersection of BHDs and incarceration. It is possible that even when individuals are screened, assessed, and referred to treatment for BHDs – in incarceration settings or in communities – they may lack a fundamental understanding of how BHD symptoms impact

their lives, their decisions, how to manage their BHD symptoms, and how to communicate to others that they have a BHD. And, at present, health and mental health literacy interventions are limited by their relative silence on substance use disorders – a key component of BHDs.

Like the health literacy and mental health literacy constructs, the overarching goal of behavioral health literacy is to shorten the time to help-seeking behaviors and to assist individuals to learn to self-manage their symptoms most effectively. However, behavioral health literacy differs from and expands these constructs in several important ways. First, unlike health literacy, behavioral health literacy is focused specifically on mental health and substance use disorders – which may be certainly intertwined with physical health issues but may exist in the absence of physical illness. Therefore, an individual might simultaneously have adequate health literacy and poor behavioral health literacy.

Second, mental health literacy is largely focused on developing knowledge for individuals without mental health disorders to recognize disorders in other people (versus self-recognition). Behavioral health literacy, on the other hand, focuses on helping the individual experiencing the BHD to recognize, understand, and act to address their own BHD symptoms. This is critical for incarcerated populations as they are isolated from their loved ones, other social supports, and formal systems of care during their incarceration and this isolation often does not end when individuals leave incarceration and return home. Isolation continues after release due to the disruptive nature of incarceration, stigma which may lead to fissures in social ties, closed doors to treatment options due to criminal convictions or other criminal legal history factors, and the numerous court and corrections systems obligations that may have to fulfill, leaving them with little time and energy to seek out BHD information or treatment options. Formerly incarcerated individuals must be able to understand and manage symptoms of BHDs and communicate to others what they are experiencing to navigate their complicated life

circumstances as best as possible. It is not enough for individuals around them to understand BHDs if the individuals themselves are not deeply knowledgeable about a condition that could make or break their success after an incarceration experience.

And finally, neither health literacy nor mental health literacy adequately or comprehensively address the signs and symptoms of substance use disorders. The behavioral health literacy construct encompasses both mental health and substance use disorders, as they are likely to co-occur. As substance use and the symptoms of substance use disorders drive individuals' contact with the criminal legal system and fuel the churn of incarceration, release, and re-incarceration, it is imperative to broaden incarcerated and formerly incarcerated individuals' knowledge in this area. Therefore, behavioral health literacy facilitates the integration of combined mental health and substance use disorders symptoms and treatment, and helps people understand how difficult it is to disentangle the two especially when individuals are housed within correctional facilities and/or releasing from incarceration and trying to navigate the impact of symptoms on their lives.

Behavioral health literacy is needed as it may be a key mechanism to reduce suicide, overdose fatality, and future criminal legal involvement among for individuals with BHDs. As health literacy interventions conducted with incarcerated individuals have shown positive impacts on chronic disease management (Donelle & Hall, 2014; Hadden et al., 2018; Ramaswamy & Kelly, 2015), increasing an individual's behavioral health literacy may improve symptom management and reduce racial health disparities in BHD treatment. Intervening with this population is critical as incarcerated individuals are disproportionately low income, undereducated, drawn from highly marginalized and disadvantaged communities, and report high rates of trauma (Morrison et al., 2019; Travis, Western & Redburn, 2014). Behavioral health literacy may improve coping with both life stressors and the stress of the incarceration

experience, as incarceration often exacerbates BHD symptoms (Massoglia & Pridemore, 2015). Although BHD symptoms play a critical role in the future health and success of currently and formerly incarcerated individuals, few individuals or their loved ones can identify BHD symptoms and initiate the process for connecting to community-based behavioral health treatment services (removed for review). Addressing this syndemic of issues requires the design, implementation, and testing of responsive interventions to increase behavioral health literacy among individuals in jail-based settings and their loved ones at home to increase service utilization and facilitate recovery among individuals with BHDs. Further, individuals who are already in treatment for BHDs may benefit from increased behavioral health literacy as well. Improving behavioral health literacy has the potential to assist individuals in their self-management of symptoms and enhance their ability to identify and access relevant supports in the community. This shift may facilitate a movement from reactive BHD intervention during a crisis to a prevention-oriented frame.

Discussion

For nearly three decades, researchers have explored the needs of individuals transitioning from correctional settings back to their communities (i.e., the reentry period; Karberg & James, 2005). A major knowledge gap exists in that we do not understand whether incarcerated individuals understand the role of BHDs in their lives, what BHD symptoms professionals are attempting to treat among this population, and how individuals access available resources (e.g., social support, services, treatment, or medications). Although research demonstrates high prevalence of BHD symptoms among currently and formerly incarcerated individuals, many criminal legal system-involved individuals with BHDs struggle to understand and manage their symptoms and may use language to describe BHD symptoms that differs from that used by the treatment and scientific communities (removed for review). Therefore, we propose behavioral

health literacy as a broad construct to help individuals to understand and manage their mental health and substance use disorder symptoms and access the support they need to achieve recovery.

The behavioral health literacy construct was designed to guide assessment and intervention development as a potential mechanism for increasing an individual's capacity to recognize their own symptoms of BHDs and seek out needed supports in and out of correctional facility settings. Behavioral health literacy intervention and measurement development can advance knowledge on factors that contribute to limited BHD treatment access and excessive symptom burden among currently and formerly incarcerated individuals and results from behavioral health literacy research may help practitioners and researchers foster engagement in behavioral health treatment both during incarceration and after release. It is vital that we understand how incarcerated and formerly incarcerated individuals understand BHDs and create targeted behavioral health literacy interventions to foster connection to BHD treatment and symptom management and disrupt the cycling of individuals in and out of incarceration through effective behavioral health practice and policy innovations.

Because incarceration is hypothesized as a causal factor in widening behavioral health inequity (e.g., Wildeman & Wang, 2017), failing to intervene during incarceration is a missed opportunity to prevent the worsening of BHD symptoms, reduce behavioral health disparities, and increase connection to treatment after an individual's release from incarceration and provide self-management skills to enhance coping when no treatment is available inside or outside of the walls. The behavioral health literacy construct acknowledges that individuals cycling in and out of incarceration bear the burden of untreated and unmanaged BHD symptoms and generates pathways for individuals with BHDs to identify new supports and potentially reduce disease burden. Identifying new supports for incarcerated adults with BHDs is urgently needed and may

reduce disease burden and allow individuals to thrive in the community after release. Although the prevalence and impact of BHDs for this population are well documented, the causal mechanism for low rates of community-based help-seeking are less clear. Low rates of behavioral health literacy may represent a key causal mechanism driving poor outcomes for individuals with BHDs.

To advance knowledge on behavioral health literacy and to develop behavioral health literacy interventions maximized for scaled, sustainable implementation within the correctional service delivery system, we suggest employing Onken and colleagues (2014) NIH Stage Model. This Model bridges the science-practice gap by proposing the refinement of interventions and efficacy-testing within naturalistic settings and identifying key mechanisms of change as the foundation for improve scale and implementability. In Stage 0 – Basic Research, a descriptive study of incarcerated individuals' current knowledge of BHDs – their origin, symptoms, consequences, strategies for management, and options for support – is warranted. Results from descriptive studies can be used to guide the development of behavioral health literacy measurement tools and a wide range of currently and formerly incarcerated individuals' levels of behavioral health literacy can be assessed. In Stage 1 – Intervention Generation/Refinement – tailored behavioral health literacy interventions can be developed in concert with current and formerly incarcerated individuals, their loved ones in the community, and both correctional and community-based BHD treatment providers. Developing behavioral health literacy intervention manuals designed to guide implementation will be key to ensuring broad dissemination of this innovation. Then, pilot feasibility and acceptability studies can be conducted to further refine the intervention, manuals, and implementation procedures. In Stage 2 – Efficacy (Research Clinics), the intervention can be tested under relatively controlled circumstances, and further refinements can be made to maximize fidelity and implementability. In Stage 3 – Efficacy (Community

Clinics), the intervention is tested in a naturalistic setting and delivered by staff likely to deliver the intervention in the field. The goal of this stage is to enhance the sustainable implementation of the intervention once the research trial has concluded.

In Stage IV – Effectiveness, the impact of the intervention on targeted outcomes, including BHD symptom burden, rates of help-seeking, and subsequent contact with the criminal legal system can be examined. Care should be taken to identify the key mechanisms of change and refine the intervention and implementation processes to fit within the service delivery landscape and amplify positive and lasting effects for intervention participants. Additionally, subpopulation analyses can be conducted to determine whether behavioral health literacy interventions needed to be tailored by race, gender, age, socioeconomic status, or region of the country. In Stage 5 – Implementation & Dissemination, the behavioral health literacy intervention is ready for scaled implementation within correctional facility settings and program components (e.g., measurement tools, intervention manuals, implementation procedures, and fidelity measures) are disseminated to both academic and non-academic audiences. This staged approach to intervention development is unique in that it transcends common research-practice barriers by focusing on sustained implementability and ensuring that the final, refined intervention is likely to be feasibly and sustainably implemented within prison and jail settings.

The desired outcomes of increased behavioral health literacy among currently and formerly incarcerated individuals include increased knowledge, choice, empowerment, and recovery from BHDs as individuals can identify and access supports when available, increase their coping skills, and improve their relationships. Behavioral health literacy has the potential to decrease a range of problematic behavior associated with BHD symptoms including criminal behavior, facilitating an individual's ability to survive incarceration and thrive in the community after release. Future research applications may be especially potent for prosecutors, public

defenders, and specialty courts (e.g., mental health courts and drug courts) and amplify an individual's connection to treatment, recovery, and desistance from crime. Behavioral health literacy interventions can focus on increasing behavioral health literacy among currently and formerly incarcerated individuals as well as provide guideposts to guide clinical interactions and policy development in correctional facilities and among professional criminal legal stakeholders.

Finally, the behavioral health literacy construct may be a potent factor to increasing corrections professionals' awareness and understanding of BHD symptoms and behaviors, catalyzing a culture shift within incarceration settings to improve outcomes among both currently incarcerated individuals and the staff members themselves. As corrections professionals are the gatekeepers who determine whether incarcerated individuals are screened for treatment or escorted to treatment after screening, it is critical to expand their behavioral health literacy to reduce treatment interference within the correctional facility setting. Increasing professionals' knowledge about BHDs and promoting positive attitudes and behaviors towards individuals with BHDs may facilitate approaches supportive of healing and recovery during incarceration and, in turn, enhance post-incarceration community stability for formerly incarcerated individuals.

Conclusions

Behavioral health literacy is an innovative construct designed to guide the development, implementation, and testing of interventions to increase knowledge about BHDs and their symptoms, facilitate speedy treatment linkage during custody and in the community after release, and ultimately improve both behavioral health outcomes and reduce criminal legal system involvement. Increasing behavioral health literacy among currently and formerly incarcerated individuals has the potential to disrupt the cycle of incarceration, release, and reincarceration, enhancing both public health and public safety. Although we propose beginning an exploration of behavioral health literacy within incarceration settings, this construct has a range of potential applications for criminal legal system-involved individuals in a variety of contexts. Ideally, increasing behavioral health literacy among at-risk individuals with BHDs may reduce the size of the correctional population and pave the way for the development of prevention and intervention strategies to help individuals with BHDs recognize and understand their symptoms, access appropriate treatment options, and thrive in the community.

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