A Model for Implementing Residential Mental Health Treatment in NYS Correctional Settings

Lauren K. Gillis
Antioch University, New England

Follow this and additional works at: https://aura.antioch.edu/etds

Part of the Clinical Psychology Commons

Recommended Citation
Gillis, Lauren K., "A Model for Implementing Residential Mental Health Treatment in NYS Correctional Settings" (2017). Dissertations & Theses. 393.
https://aura.antioch.edu/etds/393

This Dissertation is brought to you for free and open access by the Student & Alumni Scholarship, including Dissertations & Theses at AURA - Antioch University Repository and Archive. It has been accepted for inclusion in Dissertations & Theses by an authorized administrator of AURA - Antioch University Repository and Archive. For more information, please contact dpdenrose@antioch.edu, wmcgrath@antioch.edu.
A Model for Implementing Residential Mental Health
Treatment in NYS Correctional Settings

by

Lauren K. Gillis

B.A., Clarkson University, 1990
M.A., Liberty University, 2001
M.S., Antioch University New England, 2011

DISSECTATION

Submitted in partial fulfillment for the degree of
Doctor of Psychology in the Department of Clinical Psychology
at Antioch University New England, 2017

Keene, New Hampshire
The undersigned have examined the dissertation entitled:

A MODEL FOR IMPLEMENTING RESIDENTIAL MENTAL HEALTH TREATMENT IN NYS CORRECTIONAL SETTINGS

presented on June 22, 2017

by

Lauren Gillis

Candidate for the degree of Doctor of Psychology
and hereby certify that it is accepted*.

Dissertation Committee Chairperson:
James Fauth, PhD

Dissertation Committee members:
Lorraine Mangione, PhD
David Hamolsky, PsyD

Accepted by the
Department of Clinical Psychology Chairperson

Name and Degree of Department Chair,

on 6/22/17

* Signatures are on file with the Registrar's Office at Antioch University New England.
Dedication

To all those who suffer with SMI who have sadly lost their lives in the SHU.

To all those who suffer with SMI who have courageously lived through the SHU.

To all those who suffer with SMI who need to find their way out of the SHU.

To all those who diligently work to advance mental health treatment so that someone suffering with SMI never finds themselves in a SHU.
Acknowledgements

Completing this journey of Faith well would not have been possible without my family—my husband, Michael—for encouraging me to take this path and seeing us through when it all turned out very differently than we first imagined. And to our daughter, Jillian, who has been so gracious in making the needed sacrifices for our family. To my sister, Lisa, who spent countless hours editing in the early stages of writing this “precious cargo of truth” and, later, stepping in with our businesses, as I devoted the time needed to finish.

To my friend and mentor, Dr. Terri Maxymillian—thank you for the time and effort spent in auditing and the feedback that was instrumental in shaping this model—the same wisdom that has shaped my thinking since those early BHU days in being competent in this challenging work.

I am also grateful to my Committee. To my Chair, Jim Fauth, I have learned so much, most importantly was that through faith and perseverance great hurdles could be overcome. Our experiences have shaped who I am today in such a way that will be powerful in my prison work overall. To my committee members—I am especially grateful to Lorraine Mangione for the generous guidance given in completing this program. In addition to this dissertation, the direction and support you provided during practica, and, as your research assistant, have empowered me to work more confidently with people suffering with SMI. Similarly, a special thank you to David Hamolsky, for all the encouragement and feedback you provided that was needed to complete this dissertation and program well.

Special thanks to John Dunham—your coaching and sense of humor helped immensely in finishing. I also need to thank Barbara Belcher-Timme, Wendy Vincent, Vincent Pignatiello and Catherine Peterson. I would not be finishing if I had not had your help. To the many others—I cannot begin to name all of you who have encouraged me to get it done—Thank You!
Table of Contents

Dedications ......................................................................................................................... iii

Acknowledgments ................................................................................................................ iv

List of Tables ......................................................................................................................... vii

List of Figures ......................................................................................................................... viii

Preface .................................................................................................................................... ix

Abstract ................................................................................................................................. 1

Introduction ............................................................................................................................. 3

  Warehousing the Seriously Mentally Ill .............................................................................. 3

  Rehabilitative Ideal Proves Elusive in Correctional Institutions ........................................ 6

  Attempts to Mandate the Rehabilitative Ideal Prove Unsuccessful ..................................... 8

  Closing the Science-Practice Gap with Implementation Science ....................................... 9

Scope of Project ....................................................................................................................... 13

Methodology .......................................................................................................................... 14

  Review Method ................................................................................................................... 14

  The CAIF Model Construction ........................................................................................... 23

Results ..................................................................................................................................... 34

  Competency Drivers ........................................................................................................... 34

  Organizational Drivers ....................................................................................................... 41

  Leadership Drivers ............................................................................................................. 46

Discussion ............................................................................................................................... 48

  Implications of the Findings, for Practice and Policy .......................................................... 49

Limitations ............................................................................................................................... 52
Future Research ..........................................................................................................................53

Personal Reflections ..................................................................................................................54

Conclusion ................................................................................................................................57

References ..................................................................................................................................59
List of Tables

Table 1. Models Reviewed: Inclusion/Exclusion Information .................................................................20

Table 2. The CAIF ..................................................................................................................................25
List of Figures

Figure 1. Overview of Research Methodology and Model Construction..........................16
Preface

The unfamiliar mixture of sounds and smells compels interplay of the senses causing an unnerving vulnerability as you enter the SHU. The dark mustiness of the hallway mingles with smells of urine and body order. An unrelenting visceral response demands you turn around and leave. Your heart races and breath is short, as anxiety takes over. The sound of the COs discussing whatever has captured their bored interest fades, as each footstep takes you further into the SHU. You wonder if they will respond if you should need their help. A hyperawareness contends with the darkness reinforcing the urge to flee. A defensive detachment mutes the verbal assaults being hurled across the 4-foot hallway that separates you from the prisoner. Cajoling remarks leave you feeling emptied of basic human decency. The pleas of other prisoners increase a sense of helplessness. Steps quickened, one foot in front of the other, to complete the task that brings you into the SHU. Both an insidious gloominess and an overpowering sense of relief cling to you for some time after leaving. You can share the desolation that lingers with those closest to you only; otherwise, professionalism and training hold your secret. Nothing makes it easier when you need to return.

I often wondered “what do those prisoners think?”
Abstract

Like the community, correctional institutions have been ill-prepared in providing care to persons with serious mental illnesses (SMIs) who engage in combative behaviors, in what generally seems to amount to innocuous social interactions. These persons have been increasingly incarcerated over the past several decades because of violent behaviors, severely complicating the effort to provide effective mental health treatment for this population. Even though correctional residential mental health units have been instituted, successfully implementing what works has shown to be, at best, transient in these settings. Through the emergence of implementation science principles, though, there is now a pathway to implement Evidence Based Programs (EBPs) in these correctional residential settings, as implementation science provides guidance for implementing state-of-the-art rehabilitative services. Key implementation drivers (i.e., competency, organizational, and leadership) correlates with the correctional science literatures, supporting the use of implementation science. This dissertation develops a model for implementing EBP in correctional residential mental health treatment units through a systematic review of both the implementation science and correctional literatures. Themes emerged for each of these drivers that provided explicit guidance to implement EBP with fidelity through this systematic review. These themes are described in the Correctional Active Implementation Frame ([CAIF]; Bertram, Blase, & Fixsen, 2015), a model that interfaces implementation science principles with correctional science intervention principles to guide the implementation process and establish a framework of best practices for implementing EBP in these correctional residential mental health treatment units. The CAIF leverages opportunities and addresses barriers that constrain EBP implementation in this complex, stressful correctional setting, thus contributing to a pathway for rehabilitation for inmates with serious mental illness.
Keywords: evidenced-based practice, serious mental illness, correctional settings, special housing units, implementation science, nothing works, what works, disciplinary segregation, rehabilitation

This dissertation is available in open access at AURA: Antioch University Repository and Archive, http://aura.antioch.edu/ and OhioLINK ETD Center, https://etd.ohiolink.edu
A Model for Implementing Residential Mental Health Treatment in NYS Correctional Settings

In its intention, I am well convinced that it is … meant for reformation; but I am persuaded that those who devised this system of Prison Discipline and those … who carry it into execution, do not know what they are doing … I hold that this slow and daily tampering with the mysteries of the brain, to be immeasurably worse than any torture of the body; and because its ghastly signs and tokens are not so palpable to the eye and sense of touch as scars upon the flesh; because its wounds are not upon the surface, and it extorts few cries that human ears can hear; therefore, I the more denounce it, as a secret punishment which slumbering humanity is not roused up to stay.

(Charles Dickens, 1842, after visiting Eastern Penitentiary)

The overarching theme of my eight-year career in New York State Department of Corrections and Community Supervision (NYSDOCCS) was participating in mental health, substance abuse, and reentry program implementation projects. During that time, I took part in implementing programs such as Transitional Services, a reentry program; ASAT, an alcohol and substance abuse treatment program; and the Behavioral Health Unit (BHU), a residential mental health treatment program. Although this work, both as a corrections counselor and Acting Deputy Superintendent of Programs (ADSP), was rewarding, my awareness of the complexities in effectively implementing mental health and substance abuse treatment for prisoners, especially for those with SMI, intensified over the years.

Warehousing the Seriously Mentally Ill

People with SMIs are all too often incarcerated for violent crimes (Mears, 2004; 2005; 2006; Soderstrom, 2007; Torrey, 1995). Consequently, there are much higher rates of people with SMIs in correctional facilities than in local communities (Al-Rousan, Rubenstein, Sieleni, Deol, & Wallace, 2017; Diamond, Wang, Holtzer III, Thomas, & Cruzer, 2001), with upwards of 50% of the correctional population suffering with some type of mental illness, as compared to
11% of the general population (James & Glaze, 2006). In essence, prisons have become de facto inpatient mental health settings—contributing to the annual $68 billion enormous cost of corrections (Lee & Stohr, 2012; Ruiz, 2011), which grew 585% in “constant dollars” between 1982 and 2004 (Loury, 2007).

Studies show there is a “significant association” between serious mental illness and violent behaviors (Silver, Felson, & Vaneseltine, 2008, p. 407). Inmates with serious mental illness—behaviorally disturbed (mental illness component)-disruptive (custodial adjustment component) inmates (Kupers, 2008b; Lovell, 2008; Toch, 1982, 2001; Toch & Adams, 2002) are more likely to (a) have a violent offense, (b) engage in violent behaviors while incarcerated, and (c) be injured in a fight during incarceration (James & Glaze, 2006).

Behaviorally disturbed-disruptive inmates are differentiated from other inmates with a diagnosis of serious mental illness because of their unpredictable, fractious behaviors; this subpopulation of inmates “mystify peers and staff, inspire fear and aversion, and spawn impotence based on a sense of our ignorance” (Toch, 1982, p. 331). Behaviorally disturbed-disruptive inmates are high risk, high need individuals who are treatment resistant; treatment modalities that have demonstrated efficaciousness in clinical settings (i.e., EBPs) have had minimal effectiveness in the real world correctional setting so far (Cullen, 2005; Cullen, Jonson, & Eck, 2012; Kupers, 2008a; Lovell, 2008; Marshall & Serran, 2004; Toch, 1982, 2001; Toch & Adams, 2002). Correctional researchers attribute the inability to serve this difficult population as a failure to implement EBPs (i.e., what works) successfully (Cohn, 2002; Cullen, 2005; Cullen & Gendreau, 1989, 2000, 2001; Cullen et al., 2012; Gendreau, Goggin, & Smith, 1999; Gendreau, Smith, & Theriault, 2009; Gormsen, 2007; Irwin, 2005; Joplin et al., 2004; Kupers, 2008b;
Lovell, 2008; Magaletta, Patry, Dietz, & Ax, 2007; Soderstrom, 2007; Toch, 1982; Toch & Adams, 2002; Torrey, 1995).

Lovell (2008) states behaviorally disturbed-disruptive inmates:

\begin{quote}
fight when there is nothing to gain, … rattle their doors till the rights they claim are restored, who mutilate themselves and contaminate their wounds, who not only smear their walls and flood their cells, but do so for incomprehensible or seemingly trivial reasons. (p. 986)
\end{quote}

present inimitable challenges to their custodians. In response, NYS correctional administrators created a system that, in practice, warehoused these problematic individuals by placing them in “disciplinary segregation” (Berkman, 1995; Irwin, 2005; New York Civil Liberties Union [NYCLU], 2012). These practices gained extensive notoriety, as locking down behaviorally disturbed inmates is inhumane (Haney, 2008; Human Rights Watch 2000, 2003, 2007, 2012, 2014; Mears, 2004; [NYCLU], 2012; O’Keefe, 2008; Soderstrom, 2007).

Unresponsive to the care, custody, and control mandates within the correctional environment, behaviorally disturbed-disruptive inmates are often subject to disciplinary segregation in Special Housing Units (SHUs)—small, windowless cells where they are denied interaction with others, fed through a porthole in the cell gate, and allowed out of their cell for one hour of daily recreation. The SHU has been described as an “incubator” (Human Rights Watch, 2003, p. 3) that significantly increases the likelihood that inmates (with or without a history of mental illness) will experience symptoms of mental illnesses, such as depression, anxiety, and psychosis (King, Steiner, & Breach, 2008; [NYCLU], 2012; O’Keefe, 2008; Soderstrom, 2007). Testimony during the 2011 Public Hearing [on] Mental Health Treatment in Prison (2011 Public Hearing) demonstrated “psychiatric deterioration …acts of self-mutilation
and even suicide” are prevalent in SHUs (p. 5). Further, Way, Miraglia, Sawyer, Beer, and Eddy (2005) revealed that disciplinary action was the precipitating factor in 42% of suicide completions in NYS SHUs. Although the actual numbers of inmates who are confined in SHUs nationally remain unclear because of reporting issues (Naday, 2008), the estimated 5,000 inmates locked down in NYS SHUs (2011 Public Hearing) represent approximately 20% of the “conservatively estimated” 25,000 inmates who are confined nationally (Mears & Bales, 2009, p. 1134; Pizarro & Narag, 2008)—demonstrating disproportionate use of disciplinary housing (The Correctional Association of New York [CANY], 2004; 2011 Public Hearing).

**Rehabilitative Ideal Proves Elusive in Correctional Institutions**

The stated mission of correctional institutions is rehabilitation; however, high recidivism rates show that the rehabilitative ideal eludes correctional administrators and policy makers. Rehabilitation is the effort to provide learning and treatment opportunities (such as mental health and substance abuse programs) so that inmates can become successful, law-abiding citizens once released back into the community (NYSDOCCS, 2011). Approximately two-thirds of the 700,000 inmates who reenter U.S. society each year—a 350% increase over the past couple decades (Re-entry Policy Council, 2004)—will return to prison within three years (Jung, Spjeldnes, & Yamatani, 2010). In addition to their longer SHU sentences (an average of seven times longer; CANY, 2004) and prison terms (an average of 12 months more; Adams & Ferrandino, 2008); inmates with mental illness are much more likely to recidivate (Adams & Ferrandino, 2008; Baillargeon, Binswanger, Penn, Williams, & Murray, 2009; Kupers, 2008b; Soderstrom, 2007); and, it is estimated that more than half of violent offense-related recidivism involves inmates who suffer from mental illness (James & Glaze, 2006). D. A. Sawyer, former Executive Director of NYS Office of Mental Health (OMH) reported that each year
approximately 23% of the 22,000 inmates who are released from NYS prisons suffer from mental illness (personal communication, October 24, 2008); 2,000 inmates are released back into the community directly from the SHU ([NYCLU], 2012). Inmates who are released from SHU often struggle with severe, uncontrollable anger problems (Kupers, 2008a; Mears & Bale, 2009; [NYCLU]; 2012) that predispose them to “exceptionally” (Grondahl, 2006) higher than average rates of recidivism than their non-mentally ill peers (Andrews et al., 1990; Duwe, 2015; Rodriguez, 2012; Soderstrom, 2007).

The rehabilitative ideal has been displaced by a socially constructed philosophy of control and punishment within the correctional community, referred to by correctional researchers as nothing works (Gendreau, 1996b). Nothing works was premised on Martinson’s fallacious (1974) research conclusions (Cullen & Gendreau, 2000; Cullen & Gilbert, 2013; Gendreau, 1996b; Martinson, 1979; Pratt, Gau, & Franklin, 2011; Sarre, 2001) that rehabilitation efforts generally have “no appreciable effect on recidivism” (p. 25). Martinson’s (1979) rescission was “virtually ignored” (Pratt et al., 2011, p. 83); consequently, this nothing works philosophy has characterized mental health treatment in prison settings for the past 40 years (Cullen, 2005; Cullen & Gendreau, 2000; Gendreau, 1996b; Irwin, 2005).

The pervasive acceptance of nothing works by the general public was reflected by the emergence of public policies (e.g., Just Desserts, Three Strikes Law, and Tough on Crime) that relied heavily on punishment as a deterrent rather than rehabilitation (Griset, 1991; Irwin, 2005; Matthews, 2009; Roberts & Hough, 2002). The ripple effect of these policies was a rapid climb in correctional populations (increased by 114.5% between 1988 and 2000; Manderscheid, Gravesande, & Goldstrom, 2004); and, since the focus was no longer on rehabilitation, a steep rise in recidivism rates (Irwin, 2005; Mears, 2004; Phelps, 2011; Snyder, 2007). In other words,
a *nothing works* philosophy supplanted the promise of rehabilitation—in public policies, and in correctional policies and procedures—which, in turn (and ironically) resulted in even higher rates of incarceration and recidivism, setting the stage for intermediation by both legal (e.g., Prisoner Legal Services [PLS]) and advocacy groups (e.g., Disability Advocates, Inc.; DAI).

**Attempts to Mandate the Rehabilitative Ideal Prove Unsuccessful**

The “entry of the mentally ill into criminal justice settings” (Diamond et al., 2001, p. 22) decidedly complicated the rehabilitative ideal (Cohn, 1991; Irwin, 2005; Mears, 2004; Soderstrom, 2007). NYS policymakers and correctional administrators addressed the increasing population of mentally ill inmates—referred to at that time as “criminally insane”—by building new prisons (Smith et al., 2004, p. 22). According to Irwin (2005), “prisoners were viewed as unredeemable...who must be broken and disciplined” (p. 17). A series of court cases changed this correctional landscape and were instrumental in “decreasing long-standing institutional barriers” (Metzner, 2002, p. 28). For example, to improve mental health care, *Negron vs. Ward* (1974) transferred the care of the mentally ill from DOCCS to OMH (Smith et al., 2004). Because the standard of care—regarding assessment, medication management, and psychosocial treatment—remained subpar (CANY, 2004; Smith et al., 2004), more lawsuits ensued, further demonstrating the failure to provide adequate mental health care in NYS prisons.

Pressures from legal and advocacy groups elicited another more recent round of reform for prison-based mental health treatment. The passing of the 2008 SHU Exclusion Law in NYS (result of the DAI lawsuit)—which required additional mental health services for mentally ill inmates in SHU—represents yet another layer of bureaucracy and complexity to a mental health system that is not working (2011 Public Hearing; 2009 Public Hearing; Beck, 2011). Additional residential mental health treatment units (RMHTUs) such as the Great Meadow Correctional
IMPLEMENTING RESIDENTIAL MENTAL HEALTH TREATMENT

Facility Behavioral Health Unit (GMCF BHU) and Marcy Correctional Facility Regional Mental Health Units (Marcy CF RMHU), that purport to use evidence-based practice (EBP), have been instituted (NYSDOCCS, 2011; Sederer, 2008). For example, cognitive-behavioral treatment (CBT) was adopted to provide structured out-of-cell therapeutic programming in the RMHTUs (NYSDOCCS, 2011)—an important step, as EBPs, can reduce costs and improve outcomes when effectively implemented (Chaiken et al., 2005). However, multiple sources (e.g., 2011 Public Hearing; [NYCLU], 2012; [CANY], 2013; NYS Commission on Quality of Care and Advocacy for Persons with Disabilities; [CQCAPD], 2010) suggest that the problem of inadequate/ineffective mental health care persists. Unfortunately, policy mandates do not guarantee implementation in practice (Alexander, 2011; Criminal Justice Transition Coalition, 2009; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Mears, 2004). Once again, efforts have fallen far short of the goal of providing effective mental health treatment, demonstrated by a 186% increase in suicide rates between 2001 and 2010 (CANY, 2013; generally used as the standard of care for litigation; Metzner, 2002) and by numerous testimonies of staff abuse (e.g., 2011 Public Hearing; [NYCLU], 2012).

**Closing the Science-Practice Gap with Implementation Science**

So while the literature is replete with *what works* for advancing effective treatment of criminal behavior (Cohn, 2002; Cullen, 2005; Cullen & Gendreau, 2001; French & Gendreau, 2006; Snyder, 2007), practical knowledge about effective implementation of evidence-based programs in prison settings is lacking (Gendreau, 1996; Gendreau et al., 2009; Haney, Banks, & Zimbardo, 1973). This is not surprising as implementation science shows “it is well documented in many disciplines that major gaps exist between what is known as effective practices (i.e., theory and science) and what is actually done (i.e., policy and practice)” (Fixsen et al., 2005, p.
129). In other words, the current state of correctional programming is similar to upwards of 90% of other real world settings that “stop at paper implementation” (Fixsen et al., 2005, p. 6); even though there are EBPs (principally CBT; Lowenkamp, Hubbard, Makarios, & Latessa, 2009) that have demonstrated effectiveness with correctional populations in clinical settings (see Milkman & Wanbert, 2007). Controlled trials have shown to be efficacious, but the transfer of practice has proven challenging (Fixsen et al., 2005). Mandates to adopt EBPs are an important first step, though they neglect to have taken into account the complex and critical step of effective implementation in the prison setting. This dissertation proposed a model for EBP implementation in correctional settings to close this science to service gap.

Barriers linked with funding, staffing, and organizational culture—“an organization’s structure, actors, and external contingencies … existing values, practices, norms, and influences” (Rudes, Lerch, & Taxman, 2011, p. 468) commonly circumvent implementation efforts (Fixsen et al., 2005). In NYS, accessing funding is not a barrier due to legislation; however, staffing and organizational culture remain significant obstacles in RMHTUs (2011 Public Hearing). Metzner (2002) cites human resources (properly trained/experienced staff) as one of the “largest barriers to implementation” (p. 23) in correctional settings. Understandably so, as there are currently only a few correctional training programs provided in traditional academic settings (Harowski, 2003; Magaletta & Boothby, 2003; Magaletta et al., 2007).

Unwittingly, science has been repudiated for common sense approaches (“unscientific thinking and an acceptance of knowledge based on one’s personal values and experiences (i.e., intuitionism), which results in a profound anti-intellectualism” Gendreau et al., 2009, p. 387); and confrontational and punitive programs such as Scared Straight and boot camps that increase recidivism have been instituted (Andrews, 2000; Carothers, 2003; Farrington & Welsh, 2005;
Gendreau et al., 2009; Lipsey & Cullen, 2007; Prendergast, 2011; Serin, 2005). Essentially these programs were repurposed to ensure custody and control to make prisons “impenetrable from the inside out” (Cullen et al., 2012, p. 77), serving to reinforce a “nothing works” culture (Adams & Ferrandino, 2008; Pizarro & Narag, 2008). Tools and guidance to overcome these barriers to effective implementation—recruiting, training, and retaining competent staff, including administrators, and changing a nothing works philosophy which undergirds organizational culture—are now accessible, thanks to the recent emergence of implementation science (Aaron, Hurlburt & Horwitz, 2011; Alexander, 2011; Bertram et al., 2015; Fixsen et al., 2005).

The literature shows science-infused implementation plans help bridge the gap between science and practice in the complex world of prison-based mental health treatment (Alexander, 2011; Bechtel, 2011; Bertram et al., 2015; Fixsen et al., 2005; Gendreau et al., 1999; Rudes et al., 2011). Through implementation science, a systemic plan of innovation transfer is developed that guides organizations through the recursive, generally nonlinear stages of exploration, installation, initial implementation, full implementation, and sustainability of an EBP (Bertram et al., 2015; Fixsen et al., 2005). In practice, this is accomplished through specialists (purveyors) who actively work to transfer EBP into practice by connecting sources (i.e., core implementation components/drivers; defined below) with destinations (i.e., practitioner/administrators/policy influences) through feedback loops, providing a practical way to collaborate (Fixsen et al., 2005). Through this active process, deficiencies are continuously uncovered, changes are stimulated in organizational culture, and policies and procedures are informed—a shift from “practitioner-focused” to “practice-focused” (Fixsen et al., 2005, p. 72).

More specifically, implementation science attributes science to service gaps to deficits in key implementation drivers, all of which must be present for effective implementation to take
place: (a) competency drivers: staff selection, pre-service and in-service training, coaching, and performance assessment, (b) organizational drivers: decision support data systems, facilitative administration, and system interventions, and (c) leadership drivers: technical and adaptive leadership (see Bertram et al., 2015):

1. Staff selection: Staff selection increases overall human resource competencies by identifying and incorporating best practices for selecting and hiring staff that are required for effective implementation of an EBP (Fixsen, Blase, Naom, & Wallace, 2009).

2. Pre-service and in-service training: Increasing staff competencies by transmitting knowledge needed to implement and sustain EBP (Fixsen et al., 2009).

3. Coaching: Facilitates behavior change (i.e., incorporating knowledge transmitted during training into practice) of those responsible for implementation (i.e. practitioners, supervisors, and managers), increasing the likelihood that innovation becomes practice (Fixsen et al., 2009).

4. Performance assessment: Increasing competencies of practitioners, coaches, and supervisors by measuring and providing feedback of staff selection, training, and coaching outcomes (Fixsen et al., 2009).

5. Decision support data systems: Ensuring fidelity of continuous staff and organizational performance data to increase capable decision making in improving innovation transfer (Fixsen et al., 2009).

6. Facilitative administration: Administrators who lead implementation efforts by restructuring and shaping hospitable environments to effectively resource the mission of the EBP (e.g., through the alignment of current philosophies, policies, procedures,
and structures) and increase collaboration among those who are responsible for implementation (Fixsen et al., 2009).

7. System intervention: Alignment of the external systems (e.g., policymakers) responsible for allocation of financial and other resources necessary to effect and sustain implementation (Fixsen et al., 2009).

8. Technical leadership: Leadership that navigates within more established systems to manage policy and procedural issues (Fixsen et al., 2009).

9. Adaptive leadership: Leadership that provides bold guidance and direction to effectively execute policies and procedures review and revisions in fully implementing EBP, essentially to shape hospitable environments (Fixsen et al., 2009).

Scope of Project

In this dissertation, I proposed the Correctional Active Implementation Frame ([CAIF]; adapted from Bertram et al., 2015) for applying implementation science principles to guide EBP implementation in correctional settings. In the short term, this model demonstrates how implementation science can be used to enhance implementation of EBPs in this setting. In the long term, the hope is this model will guide actual implementation of EBPs in NYS RMHTU settings, leading to improved outcomes for inmates and positive organizational change. I also hope that this model will serve as a useful template for implementation of mental health EBPs in prison settings more generally. I sought answers from the implementation science literature to the following questions:

1. How can implementation science be used and applied in prison settings?

2. What implementation models, tools, and guidance are available and adaptable to the NYS prison system?
3. How can this knowledge be translated and adapted to the NYS prison system at a practical level? For example, how can fidelity of implementation best be monitored and communicated in the NYS prison system?

**Methodology**

Fixsen et al.’s (2005) seminal lithograph established a utilitarian paradigm for implementation science. More recently, Bertram et al. (2015) described the Active Implementation Frame (AIF) comprised of four components: (a) implementation stages, (b) implementation drivers (core implementation components), (c) implementation teams (specialists), and (d) improvement cycles (i.e., feedback loops). I used implementation lessons extracted from the implementation science and criminology literatures to adapt the AIF to correctional mental health units. Both literatures were culled through a systematic review (described below). The end product is the CAIF—a model derived from the implementation science and correctional literatures that support the successful implementation of evidence-based mental health practices in correctional mental health units.

**Review Method**

The primary methodology was a two-phased, systematic review of the literature in service of answering the research questions and constructing the CAIF (see Figure 1). Systematic reviews are widely regarded as the gold standard in determining ‘what works’ in strengthening mental health care practice and policy (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004; Greenhalgh et al., 2005; Lavis et al., 2005; Pawson, Greenhalgh, Harvey, & Walshe, 2005). In accordance with Greenhalgh et al.’s (2005) mixed methods research approach for the conduct of systematic review (Heyvaert, Maes, Onghena, 2013; Palinkas, Aarons, Horwitz, Chamberlain, Hurlburt, & Landsverk, 2011), I sought an understanding of the subject and
identified keywords and databases for carrying out a focused search of the literature (i.e., preliminary phase) to conduct a comprehensive review and synthesis of key evidence (i.e., operational phase). In the operational phase, I searched peer-reviewed journal articles, book chapters, and grey literature available in English that provided implementation science-informed guidance for implementing evidence based mental health programs and interventions in correctional settings.

**Preliminary phase.** I conducted the preliminary phase of the systematic review to learn about implementation science principles; lay the groundwork for this dissertation and the operational phase; and formulate the research questions (Greenhalgh et al., 2005; McPheeters, Briss, Teutsch, & Truman, 2006; Powell et al., 2012). This phase of the review provided “background knowledge … broad enough to give a panoramic view of the issue … provide key information on relevant concepts or theory, and … detailed enough to allow full description of important or key studies” (McPheeters et al., 2006, p. 100).

The key question that guided the preliminary phase was *Can implementation science inform the implementation of EBPs in the correctional setting?* To answer this question, I searched for abstracts using the *Academic Complete* database with keywords such as *implementing, evidence-based practices,*
Figure 1. Overview of Research Methodology and Model Construction
and correctional settings to determine if implementation science had been applied in prison
settings. I met with the AUNE reference librarian to review my search strategies to ensure a
thorough search had been developed (Rothstein & Hopewell, 2009).

At the completion of the preliminary phase, I had identified 100 articles (available from
author) that provided comprehensive coverage of the relevant implementation science and
correctional literature. Consistent with Ryan and Bernard’s (2003) recommendations, I
categorized these articles through identifying repetitions (i.e., recurrent topics) and local terms
(i.e., common terms) used by the implementation or correctional researchers. The final product
of the preliminary phase was the introduction section of this manuscript, the formulation of the
research questions to guide the overall process, and a focused strategy for the systematic review,
including a complete list of terms and keywords (available from author).

Operational phase. The operational phase was used to answer my research questions
and provide the raw material for the development of the CAIF. An explicit plan that included a
search strategy (see below), well-formulated research questions (see introduction), inclusion and
exclusion criteria, and a critical and transparent process for interpreting findings guided the
operational phase (Greenhalgh et al., 2005; Lavis et al., 2005; McPheeters et al., 2006). This
approach has been developed and refined by social science researchers (Hannes & Claes, 2007;
Sheldon, 2005).

Literature selection. Fixsen et al. (2005) provided a comprehensive review of the
implementation science literature and identified key implementation principles across diverse
contexts such as human services, agriculture, … medicine, manufacturing, and marketing;
therefore, I generally restricted my literature search to publications between 2005 and 2015.
Because minimal attention was given to implementation in correctional settings in Fixsen et al.’s

I used the following databases to search the literature: *Criminal Justice Abstracts with Full Text, SocINDEX with full text, and Social Services Citation Index (SSCI), PsycINFO, Cumulative Index to Nursing and Allied Health (CINAHL), and Medline*. I used search strings and indexing systems that are available in the majority of the databases (Powell et al., 2012; Taylor, Wylie, Dempster, & Donnelly, 2007). In addition, I used snowballing techniques (i.e., searching reference lists; Greenhalgh et al., 2004), giving priority to those articles that are cited three or more times by implementation science researchers (e.g., Aarons, Hurlburt, & Horwitz, 2011; Damschroder et al., 2009). This search strategy resulted in adequate sensitivity (i.e., the measure of a search’s capacity to yield the articles that adequately cover the subject) and precision (i.e., the measure of a search’s capacity to yield articles that are relevant only to the subject; McFadden, Taylor, Campbell, & McQuilkin, 2012; Taylor et al., 2007).

I evaluated each of these journal articles in the review using inclusion/exclusion criteria. I included the following types of peer-reviewed literature: (a) systematic reviews and evidence-based conceptualizations of implementation science principles/findings since Fixsen et al. (2005) and (b) implementation science models, evidence-based guidance, and observations from treatment studies relevant to implementing EBP’s in correctional/institutional settings. Non-English, opinion papers, and publications that used the term implementation only in a general manner were excluded (Fixsen et al., 2005; see Table 1).

I also supplemented the scarce peer reviewed corrections-specific implementation literature (Mears, 2004; Soderstrom, 2007) with grey literature (e.g., committee reports, conference proceeding, government documents and hearings; Rothstein & Hopewell, 2009).
maintained the integrity of my search by using grey literature from reputable sources within the correctional field (i.e., government reports) and references found in journal articles. The core components of the CAIF that were eventually derived from the body of literature was the product of this stage.
Table 1

**Model Identification**

<table>
<thead>
<tr>
<th>Citations</th>
<th>Identified by</th>
<th>Model</th>
<th>Inclusion Rationale</th>
<th>Exclusion Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron, Hurlburt, &amp; Horwitz</td>
<td>Preliminary review; Tabak et al., (2012)</td>
<td>Conceptual Model</td>
<td>Implementation science model; detailed constructs; operationalized in public service sectors</td>
<td></td>
</tr>
<tr>
<td>(2011)</td>
<td></td>
<td>Evidence-Based (E-B) Practice Implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>in Public Service Sectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alexander (2012)</td>
<td>Preliminary review</td>
<td>Active Implementation Frame (AIF)</td>
<td>Fixsen et al. (2005) applied in community correctional setting</td>
<td></td>
</tr>
<tr>
<td>Betram, Blase, &amp; Fixsen</td>
<td>Search for Fixsen et al. (2005) revisions</td>
<td>AIF</td>
<td>Fixsen et al. (2005) revisions</td>
<td></td>
</tr>
<tr>
<td>(2015)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damschroder et al., (2009)</td>
<td>Preliminary review; Tabak et al., (2012)</td>
<td>Consolidated Frame for Implementation Research</td>
<td>Implementation science model; detailed constructs; operationalized in health settings; applicable to wider applications</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CFIR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elwyn, Taubert, &amp; Kowalczuk</td>
<td>Tabak et al., (2012)</td>
<td>Sticky Knowledge</td>
<td>saturation</td>
<td></td>
</tr>
<tr>
<td>(2007)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(table 1 continues)
Table 1 (continues)

<table>
<thead>
<tr>
<th>Citations</th>
<th>Identified by</th>
<th>Model</th>
<th>Inclusion Rationale</th>
<th>Exclusion Rationale</th>
<th>Implementation Driver Inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixsen, Blase, Timbers, &amp; Wolf (2007)</td>
<td>snowballing</td>
<td>AIF</td>
<td>Fixsen et al. (2005) applied in real world setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metz &amp; Bartley (2012)</td>
<td>Preliminary review</td>
<td>AIF</td>
<td>Fixsen et al. (2005) applied</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(table 1 continues)
<table>
<thead>
<tr>
<th>Citations</th>
<th>Identified by</th>
<th>Model</th>
<th>Inclusion rationale</th>
<th>Exclusion rationale</th>
<th>Implementation Driver Inclusion</th>
</tr>
</thead>
</table>
The second phase yielded 2,258 journal articles, of which 294 articles (available from author) met search criteria. These search strategies provided ample number of existing models for analysis that met criteria for inclusion and these models represented an overview of the literature. For example, Tabak, Khoong, Chambers, and Brownson (2012) reviewed 61 implementation/dissemination models and Damschroder et al. (2009) supplied a review of 19 models; fortunately, these models leveraged the same literature that converged for the conceptualization of key themes. Models were culled from the preliminary review ($n = 7$), Fixsen et al. (2005) revisions search ($n = 2$), and snowballing ($n = 2$) to construct the CAIF. Guidance, tools, and strategies (hereafter data) were extracted from these eleven models (eight were extracted from the implementation science literature and three from the correctional literature), providing the elements for the CAIF model.

**Data extraction.** In this stage, I extracted the following data from the aforementioned literature using a data abstraction tool (DAT; Greenhalgh et al., 2005) that includes: (a) purpose of the article (b) implementation setting, (c) implementation principles, strategies, guidance, and tools for each of the CAIF components, (d) illustrative quotations, (e) notes made by reviewer, and (f) reference (adapted from Fixsen et al., 2005).

**The CAIF Model Construction**

The data was translated from the DATs into the CAIF Evidence Table (available from author). I then synthesized the data in the CAIF Evidence Table into core themes through an inductive process by searching for, labeling, and arranging together recurrent patterns of data within and across each of the CAIF categories. Core themes were those patterns most strongly supported by the literature (i.e., proposed/supported by three or more authors/research teams), all of which were determined to be the themes within the implementation drivers for the CAIF
model. This system was useful for sorting and providing an audit trail.

The CAIF model captures key implementation guidance and strategies and the defining characteristics of what, how, by whom, where, and when each of these themes should be used to effectively implement evidence-based mental health practices in correctional settings (see [CAIF], Table 2). The CAIF model was audited by a correctional mental health program expert who reviewed my method to ensure fidelity of the construction of the CAIF (e.g., data contained within the DATs, CAIF Evidence Table, and themes; Hill et al., 2005). The expert supplied oral and written questions with recommendations. I addressed these audit results and modified the CAIF accordingly. The final model (see Table 2) is presented and described in the Results section, and the implications for practice, policy, and future research is summarized in the Discussion.
### Table 2: CAIF Model

<table>
<thead>
<tr>
<th>Competency driver</th>
<th>Theme</th>
<th>Specific to correctional setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Selection</td>
<td>Staff selection criteria</td>
<td>Select for staff/candidates who have technical/professional correctional training, are knowledgeable about what works. Essential interpersonal characteristics: (a) ability to structure/adapt interventions to inmates’ style (b) attitudes such as congruency with positive organizational values, mission and goals, and (c) attributes such as integrity, empathy, commitment, respect for authority, and coachability.</td>
<td>Alexander, 2011; Cullen &amp; Gendreau, 2000; Cullen et al., 2012; Gendreau et al., 1999; Kupers et al., 2009</td>
</tr>
<tr>
<td>Hiring procedures</td>
<td>Methods include (a) active marketing strategies such as predoctoral internships, (b) encouraging referrals through correctional employees, and (c) educating through on-site visits. Structured interview is informed by a job analysis to (a) evaluate correctional technical/professional training; (b) identify appropriate selection tools; (c) conduct realistic job previews (e.g., role play to determine situational judgement) and (d) assess past work performance (background checks) in determining fit.</td>
<td>Baker &amp; Carrera, 2007; Joplin et al., 2004; Magaletta et al., 2012; Morgan &amp; Smith, 2009; Tercilla et al., 2012</td>
<td></td>
</tr>
</tbody>
</table>

(table 2 continues)
<table>
<thead>
<tr>
<th>Competency driver</th>
<th>Theme</th>
<th>Specific to correctional setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff selection</td>
<td></td>
<td>Support staff selection by (a) articulating staff roles to develop employee plans, (c) collaborating with frontline staff to increase buy-in, (d) having ready access to change agent (e.g., supervisors), and (e) providing competitive resources.</td>
<td>Adams &amp; Ferrandino, 2008; Alexander, 2011; Boothby &amp; Clements, 2002; Garland et al., 2013; McVey &amp; McVey, 2005; Paul &amp; Feuerbach, 2008; Serin, 2005</td>
</tr>
<tr>
<td>Training</td>
<td>Educate</td>
<td>Generate stimulating, cross-disciplinary EBP-informed training programs to (a) decrease competing approaches (punishment vs. treatment), (b) communicate vision and common goals of safer prisons and reduced recidivism, (c) increase interpersonal skillfulness in changing deprivation mind-sets of worst of the worst thinking, and (d) connect treatment interventions with assessment results to demonstrate efficacy of EBP.</td>
<td>Adams &amp; Ferrandino, 2008; Appelbaum et al., 2001; Dvoskin &amp; Spiers, 2004; Haney, 2008; Harowski, 2003; Joplin et al., 2004; King et al., 2008; Kupers et al., 2009; Lambert et al., 2013; Magaletta et al., 2007; Magaletta et al., 2012; Murphy, 2013; Parker, 2009; Serin, 2005; Young &amp; Antonio, 2009</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td>Develop pre/in-service training curriculum using EBP, group specific and complementary. Training objectives (a) are informed by correctional science intervention principles such as using active listening skills, (b) address dynamic environmental factors such as deprivation that interrupts sleep cycles, (c) support risk reduction (e.g., staff are non-reactive, key observers able to identify high risk behaviors such as medication noncompliance; self-harm behaviors), and (d) decrease faulty communication patterns to achieve/sustain primary organizational objectives (safety and order).</td>
<td>Adams &amp; Ferrandino, 2008; Boyle &amp; Wieder, 2007; Carter et al., 2002; Dvoskin et al., 2003; Haney, 2008; Haqanee et al., 2015; Harowski, 2003; Jacobs et al., 2014; Joplin et al., 2004; King et al., 2008; Kupers et al., 2009; Magaletta et al., 2005; Magaletta &amp; Boothby, 2003; Magaletta et al., 2007; Magaletta et al., 2012; Serin, 2005; Young, Antonio, &amp; Wingeard, 2009</td>
</tr>
</tbody>
</table>

(table 2 continues)
<table>
<thead>
<tr>
<th>Competency driver</th>
<th>Theme</th>
<th>Specific to correctional setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training delivery systems</td>
<td>Training delivery systems</td>
<td>Identify trained trainers who connect with staff and administrators to address deficits in trainings and conflicting cultures and identify cooperative strategies (e.g., translate safety strategies into practice). Outline and organize core bodies of knowledge to measure practice, support applications, and increase competent/collaborative service delivery systems (decreasing powerful influences of nothing works/worst of the worst, vicarious trauma, and deprivation mentality).</td>
<td>Appelbaum et al., 2001; Curtis &amp; Day, 2013; Dvoskins et al., 2003; Finn, 2000; Geiman, 2012; Haney, 2008; Jacobs et al., 2014; Joplin et al., 2004; King et al., 2008; Latessa et al., 2002; Magaletta et al., 2007</td>
</tr>
<tr>
<td>Coaching</td>
<td>Practitioner development</td>
<td>Coaches encourage staff to challenge professional barriers by examining practices and asking difficult questions about current interventions, recognizing staff roles evolve over time. Coaches develop coaching plans within a developmental frame that increase (a) capacity to master knowledge base that joins mental health intervention with correctional science, (b) interpersonal skillfulness (e.g., active listeners, empathetic, respect confidentiality), and (c) practitioner’s criminological literacy (e.g., conversant in static [criminal history] and dynamic [criminological needs] risk factors) to foster behavior change in reducing recidivism.</td>
<td>Joplin et al., 2004; Latessa et al., 2002; Magaletta &amp; McLearen, 2015; Magaletta &amp; Verdeyen, 2005; Matthews, 2010; Morgan &amp; Smith, 2009; Paul &amp; Feuerbach, 2008</td>
</tr>
<tr>
<td>Knowledge transfer</td>
<td>Knowledge transfer</td>
<td>Normalize coaching culture/supportive training environments.</td>
<td>Alexander, 2011; Magaletta et al., 2007; Serin, 2005</td>
</tr>
</tbody>
</table>

*(table 2 continues)*
<table>
<thead>
<tr>
<th>Competency driver</th>
<th>Theme</th>
<th>Specific to correctional setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Assessment</td>
<td>Practitioner monitoring</td>
<td>Develop model informed constructs to determine if interventions align with target populations risk/needs, job satisfaction (measure of successful implementation), and realistic goals; then evaluate to intervene. Ecological frame (e.g. include correctional administrators in feedback loop process development) to support collaboration. Continual monitoring so that clearly defined staff roles informed by policies and procedures are aligned with EBP for staff selection, recruiting, and hiring in developing a strong workforce. Measure outcomes to understand causal factors related to achieving goals in providing accountability for professional development.</td>
<td>Alexander, 2011; Joplin, et al., 2004; Lambert et al., 2013; Paul &amp; Feuerbach, 2008; Stickrath &amp; Sheppard, 2004</td>
</tr>
<tr>
<td>Organizational monitoring</td>
<td>Monitor outcomes in achieving goals of (a) accountability, (b) funding secured, and (c) professional development (e.g., certifications). Monitor organizational performance pertaining to (a) developing/ implementing program, (b) consulting manuals (e.g., training) to improve practice. Provide constructive feedback to staff through coaching/ supervision to include communicating awareness of challenges staff work under.</td>
<td>Alexander, 2011; Cohn, 1991; Cohn, 2002; Latessa et al., 2002; Lee &amp; Stohr, 2012; Paul &amp; Feuerbach, 2008</td>
<td></td>
</tr>
</tbody>
</table>

(table 2 continues)
<table>
<thead>
<tr>
<th>Organizational driver</th>
<th>Theme</th>
<th>Specific to correctional setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision Support Data Systems (DSDS)</td>
<td>Local clinical scientist frame</td>
<td>Build decision making systems using science to inform: (1) well-defined organizational culture/climate goals and strategies; (2) implementation drivers (e.g., staff roles), and (3) accountability (e.g., through lessons learned from past implementation) within a correctional structural frame to facilitate communication of strategies/goals and related P&amp;P (i.e., Directives).</td>
<td>Alexander 2011; Bonner &amp; Vandecreek, 2006; Cullen, 2005; Cullen et al., 2012; Gendreau et al., 2009; Latessa et al., 2002; Lee &amp; Stohr, 2012</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>Assess evaluation using transparent, local methods (e.g., ensuring outcomes improves practice) so that decisions are based on policy implementation. Data are readily available to inform decisions and easily understood by layperson. Decisions are informed by science (e.g., criminogenic needs). Systems focus (e.g., Superintendents in feedback loops) increases opportunities to successfully implement drivers through collaboration.</td>
<td></td>
<td>Alexander, 2011; Cohn, 1991; Cullen et al., 2012; Farrington &amp; Welsh, 2005; Gendreau et al., 2009; Joplin et al., 2004; Lowenkamp &amp; Latessa, 2005; Serin, 2005; Shojania &amp; Grimshaw, 2005</td>
</tr>
</tbody>
</table>

(table 2 continues)
Table 2 (continues)

<table>
<thead>
<tr>
<th>Organizational driver</th>
<th>Theme</th>
<th>Specific to Correctional Setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitative Administration (FA)</td>
<td>Organizational restructure</td>
<td>Policies and procedures of current structures, processes, and practice are scrutinized. Assessment results determine strategies (e.g., educate upper management) for achieving goals. Decisions making is decentralized as appropriate within the correctional structural frame (centralized supports safety and security of the facility and early stages of implementation). Administrators align policies and procedures to (a) decrease work related stressors (e.g., by determine appropriate caseloads/treatment dosages, (b) decrease resistance/turnover (e.g., provide sense of autonomy/effecting change; ample access to training and supervisors), and (c) address psychological and social factors by communicating expectations and seek feedback to facilitate collaboration.</td>
<td>Bartol, 2015; Boone &amp; Sperber, 2007; Gendreau et al., 2009; Joplin et al., 2004; Latessa, et al., 2002; Magaletta et al., 2007; Magaletta &amp; Verdeyen, 2005; Paul &amp; Feuerbach, 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EBP implementation plan includes strategies for (a) staff selection; (b) assessing, revising, and communicating P&amp;P; and (c) operationalizing feedback loops to address difficult problems and ensure fidelity. Plan is field tested with active involvement with all staff. Scientific inquiry builds correctional mental health profession, identifies strategic goals such as securing funding, and realigns staff to guide overall implementation.</td>
<td>Adams &amp; Ferrandino, 2008; Bartol, 2015; Boone &amp; Sperber, 2007; Kupers et al., 2009; Paul &amp; Feuerbach, 2008</td>
</tr>
</tbody>
</table>

(table 2 continues)
Table 2 (continues)

<table>
<thead>
<tr>
<th>Organizational driver</th>
<th>Theme</th>
<th>Specific to Correctional Setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitative</td>
<td>Hospitable environments</td>
<td>Develop P&amp;P to select personnel who have characteristics that are amenable to becoming correctional professionals with appropriate skill sets (see staff selection) to provide direct services (screening, assessment, and treatment planning) and program coordination (program design, development, implementation, administration and evaluation). Expand correctional officer’s roles to engage as mental health paraprofessionals. Collaborate with staff who engage in research (to include integrating knowledge bases; increase understanding about mechanisms of change) for developing sound correctional theory to build therapeutic environment.</td>
<td>Adams &amp; Ferrandino, 2008 Alexander, 2011; Bartol, 2015; Boone &amp; Sperber, 2007; Gendreau et al., 2009; Joplin et al., 2004; Lambert, 2004; Magaletta et al., 2005; Magaletta et al., 2007; Magaletta &amp; Verdeyen, 2005; Paul &amp; Feuerbach, 2008</td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td>Develop processes to align policies and procedures with new program and monitor implementation to proactively decrease barriers to implementation (e.g., resistance, staff turnover); collaborate with front line staff to solicit feedback (e.g., use surveys, discussion tools, and committees); and incorporate strategies to decrease staff turnover (e.g., competitive salaries, clear role descriptions, and training supports). Strategies such as training upper management are used to acquire needed supports (e.g., financial and human resources) that are appropriated through external systems (e.g., legislature).</td>
<td>Alexander, 2011; Boone &amp; Sperber, 2007; Paul &amp; Feuerbach, 2008</td>
</tr>
</tbody>
</table>

(table 2 continues)
<table>
<thead>
<tr>
<th>Organizational driver</th>
<th>Theme</th>
<th>Specific to Correctional Setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems Level</td>
<td>Systems assessment</td>
<td>Understand systems as each having a particular effect on implementation -- “understanding segregation as a constantly interacting set of individuals, contexts, and processes” (Magaletta, Ax, Patry, &amp; Dietz, 2005, p. 34).</td>
<td>Magaletta et al. 2007; Matthews, 2009</td>
</tr>
<tr>
<td></td>
<td>Systems protocol</td>
<td>Coordinate collateral systems through education (linking theory to practice) to demonstrate increased policy effectiveness (e.g., reduce recidivism). Strategies to challenge status quo such as incorporating accountability.</td>
<td>Alexander, 2011; Cullen et al., 2012; Latessa et al., 2009; Latessa, Cullen, &amp; Gendreau, 2002; Lee &amp; Stohr, 2012; Matthews, 2009</td>
</tr>
<tr>
<td>Leadership driver</td>
<td>Technical Leadership</td>
<td>Leaders manage policy changes in this static environment, recognizing problems that a 'nothing works' mentally creates; addressing through strategies such as building teams and follow through.</td>
<td>Alexander, 2011; Lee &amp; Stohr, 2012; Paul &amp; Feuerbach, 2008</td>
</tr>
<tr>
<td></td>
<td>Policy management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Procedural guidance</td>
<td>Ensure procedures are followed.</td>
<td>Alexander 2011; Morgan &amp; Smith, 2009; Paul &amp; Feuerbach</td>
</tr>
</tbody>
</table>

(table 2 continues)
<table>
<thead>
<tr>
<th>Leadership driver</th>
<th>Theme</th>
<th>Specific to correctional setting</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptive Leadership</td>
<td>Organizational supports</td>
<td>Visible leaders develop clinical environments within a systems frame in continually improving service delivery. Bold leadership implement change in a treatment adverse environment using collaborative strategies.</td>
<td>Alexander, 2011; Cullen et al., 2012, Kupers et al., 2009; Lee &amp; Stohr, 2012, Magaletta et al., 2007; Morgan &amp; Smith, 2009</td>
</tr>
<tr>
<td></td>
<td>Professional identity</td>
<td>Professional identity for correctional mental health professionals that aligns with science (i.e., with EBP).</td>
<td>Cullen et al., 2012; Latessa et al., 2002; Magaletta et al., 2007</td>
</tr>
<tr>
<td></td>
<td>Build-in accountability</td>
<td>Structures that ensure administrators lead in continuously improving programs for achieving effective correctional mental health treatment.</td>
<td>2011 Public Hearing; Cohn, 2002; Cullen et al., 2012; Latessa et al., 2002</td>
</tr>
</tbody>
</table>
Results

The CAIF model is comprised of the NIRN implementation drivers (see Bertram et al., 2015) and emergent themes within drivers as derived from the intersection of the implementation and correctional literatures (see CAIF, Table 2). These emergent themes represent the common factors of effective implementation of EBPs in prison settings. This section describes these key CAIF themes by implementation driver, thereby providing a roadmap for implementing EBPs in prisons. See also Table 2, which contains a list of these themes by implementation driver, with guidance from the literature on how to apply the themes in correctional settings. This table provides another layer of detail about the when and how of effective implementation.

Competency Drivers

Staff competence was unequivocally endorsed in both literatures as necessary for effective implementation, requiring an integrated and compensatory approach (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Cullen et al., 2012; Damschroder et al., 2009; Magaletta & Boothby, 2003). The competency drivers, staff selection, training, and coaching, are described below.

Staff selection. Emergent themes for staff selection were (a) staff selection criteria, (b) hiring procedures, and (c) staff selection resources. Staff selection criteria are the qualifications, informed by EBP and organizational fit, that should govern staff selection for a particular EBP (see Table 2; Aarons et al., 2011; Alexander, 2011; Bernfeld, 2006; Bertram et al., 2015; Cristofalo, 2013; Cullen & Gendreau, 2000; Cullen et al., 2012; Fixsen et al., 2009; Metz & Bartley, 2012; Stickrath & Sheppard, 2004). These qualifications were discussed in the literature in terms of learnable and non-learnable characteristics (Aarons et al., 2011; Bernfeld, 2006; Bertram et al., 2015; Metz & Bartley, 2012; Stickrath & Sheppard, 2004). Learnable
characteristics are the formal work experiences and qualifications that staff brings to the job, including education, licenses, and previous work evaluations (Aarons et al., 2011; Bertram et al., 2015; Cullen et al., 2012; Morgan & Smith, 2007; Stickrath & Sheppard, 2004). Non-learnable characteristics are essential personality qualities that are difficult to teach, such as empathy and willingness to learn (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Bernfeld, 2006; Morgan & Smith, 2009). Selecting for staff/candidates who have technical and professional training specific to corrections, are knowledgeable about what works (i.e., EBP informed by correctional science), and demonstrate interpersonal skillfulness was recommended in the correctional literature (Alexander, 2011; Cerinus & Shannon, 2014; Cullen et al., 2012; Joplin et al., 2004; Morgan & Smith, 2009; Paul & Feuerbach, 2008; Serin, 2005; Stickrath & Sheppard, 2004; Weider, Boyle, & Hrouda, 2007).

Hiring procedures are the activities and processes used to select qualified candidates: recruiting and structured interviewing (see Table 2; Aarons et al., 2011; Baker & Carrera, 2007; Bertram et al., 2015; Boyle & Wieder, 2007; Fixsen et al., 2009; Joplin et al., 2004; Kiraly, 2001; Metz & Bartley, 2012; Wieder et al., 2007). Recruiting are those hiring activities that are used to attract and retain qualified candidates (Aarons et al., 2011; Baker & Carrera, 2007; Bertram et al., 2015; Cerinus & Shannon 2014; Morgan & Smith, 2009). For example, recruiting interns who successfully complete predoctoral internships in correctional settings was recommended as a hiring method (Magaletta, Patry, & Norcross, 2012; Magaletta et al., 2013).

Structured interviewing is the process of evaluating (e.g., direct questioning and role play) a candidate’s professional training, EBP knowledge and skills, and organizational fit to increase the likelihood of selecting qualified candidates (Aarons et al., 2011; Bertram et al., 2015; Boyle & Wieder, 2007; Joplin et al., 2004; Kiraly, 2001; Metz & Bartley, 2012; Morgan &
Smith, 2009). For example, the candidate could be asked about past job performance, understanding of interventions, and ability to work both independently and as part of a team within this complex environment (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Briand & Menear, 2014; Stickrath & Sheppard, 2004). While role play could provide information about the candidate’s comfort level with job requirements, coach-ability, and reaction to hypothetical scenarios (Aarons et al., 2011; Alexander, 2011; Andrews, 2001; Briand & Menear, 2014; Fixsen, Blase, Timbers, & Wolf, 2007; Stickrath & Sheppard, 2004; Weider, Boyle, & Hrouda, 2007).

Execution of both strong recruiting and structured interviewing practices is dependent on sufficient staff selection resources (see Table 2; Aarons et al., 2011; Bertram et al., 2015; Bertram, Suter, Bruns, & O’Rourke, 2011; Boyle & Wieder, 2007; Damschroder et al., 2009; Davidson, 2010; Fixsen et al., 2009). Staff selection resources are the funding, policies, and methods for attracting, selecting, and retaining qualified staff (e.g., competitive compensation packages and EBP-informed employment plans; Aarons et al., 2011; Damschroder et al., 2009; McVey & McVey, 2005). One of the most important factors is having a competitive salary and benefits package, which requires positive socio-economic and organizational financing conditions (Aarons et al., 2011; Bertram et al., 2015; McVey & McVey, 2005). Another fundamental component is EBP-informed employment plans that guide staff in fully adopting organizational best practices and pro-social norms (such as personal commitment and teamwork; Aarons et al., 2011; Damschroder et al., 2009; Harowski, 2003; Magaletta, Ax, Patry, & Dietz, 2005; Magaletta et al., 2012). The employment plan incorporates strategies that increase the candidate’s ability to function within a multidisciplinary team such as to (a) clearly articulate staff roles, (b) encourage personal commitment and creativity, (c) identify common goals that
proactively decrease barriers to change, and (d) provide ready access to supervision/coaches (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Damschroder et al., 2009).

Training. Emergent themes for training were (a) education, (b) training manuals, and (c) training delivery systems. The end goal of training is to build staff competence by providing education about EBP so that knowledge is transferred into practice (Alexander, 2011; Bertram et al., 2015; Damschroder et al., 2009; Harowski, 2003; Joplin et al., 2004; Kupers et al., 2009). Education or knowledge transfer takes place through timely, dynamic, mandatory EBP program specific pre/in-service trainings. An ecological perspective connects criminology with clinical practice to inform knowledge that (a) decrease barriers/competing approaches (i.e., punishment vs. treatment), (b) target worst of the worst thinking about high risk inmates (c) increase interpersonal skillfulness, (d) connect treatment strategies with assessment results to demonstrate EBP supports/accomplishes goal of safer prisons and communities, and (e) facilitate collaboration (Gendreau et al., 2009; Joplin et al., 2004; Kupers et al., 2009; Magaletta et al., 2007; Paul & Feuerbach, 2008). A training schedule is developed for each staff member, which is incorporated into that person’s employment plan (see staff selection resources above; Bertram et al., 2015; Damschroder et al., 2009; Haqanee, Peterson-Badali, & Skilling, 2015; Harowski, 2003; Joplin et al., 2004).

Training manuals—another important component of effective training—provide trainers and other key staff with access to cutting edge practice techniques that support consistent and effective implementation (Aarons et al., 2011; Bertram et al., 2011; Carter et al., 2002; Latessa, Cullen, & Gendreau, 2002; Magaletta et al., 2007; Paul & Feuerbach, 2008). The theory that informs any given evidence-based practice determines the instruction that is contained in training manuals (Adams & Ferrandino, 2008; Bertram et al., 2011; Magaletta et al., 2007; Paul &
Feuerbach, 2008). Practically, a training manual clearly outlines strategic training objectives—the understanding, skills, and behaviors that practitioners need to possess to implement an EBP (Bernfeld, 2006; Bertram et al., 2011; Harowski, 2003; Latessa et al., 2002; Magaletta et al., 2005).

Training delivery systems are the methods, policies and procedures that are necessary for optimal training (Aarons et al., 2011; Bertram et al., 2015; Bertram et al., 2011; Boyle & Weider, 2007; Fixsen et al., 2009; Ruffolo & Capobianco, 2012). Trainings are delivered during regular intervals by professional trainers who champion knowledge transfer (Bertram et al., 2015; Briand & Menear, 2014; Harowski, 2003; Ruffolo & Capobianco, 2012). Another delivery mechanism is connecting staff to coaches during and beyond training (see below; Alexander, 2011; Bertram et al., 2015). Trainers and coaches provide plentiful practice opportunities that (a) engage diverse staff (both security and mental health); (b) increase staff buy-in, skill mastery, and self-efficacy; (c) decrease barriers to personal and professional growth/satisfaction (e.g., negative attitudes and beliefs); and (d) encourage support for change (Aarons et al., 2011; Adams & Ferrandino, 2008; Briand & Menear, 2014; Boyle & Wieder, 2007; Damschoder et al., 2009; Fixsen et al., 2009; Joplin, 2004; Magaletta et al., 2005).

Coaching. Coaching has to do with shaping practice at the point of performance, to ensure transfer of training (Alexander, 2011; Bertram et al., 2015; Metz & Bartley, 2012). Coaching involves facilitating and reinforcing effective interventions while identifying and discouraging ineffective practices (Bertram et al., 2015; Paul & Feuerbach, 2008). Coaching has been determined to be a needed supplement to training, as training is prescribed but not sufficient for practice change (Alexander, 2011; Bertram et al., 2015; Fixsen et al., 2005).
The coaching themes were *practitioner development* and *knowledge transfer*. Coaches encourage practitioner development, which is demonstrated by using EBP-relevant skills and behaviors in daily practice, structuring time well, and in so doing, helping overcome resistance to change (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Fixsen et al., 2009; Metz & Bartley, 2012).

Coaches use both individual and team approaches for practitioner development by establishing EBP-informed, measurable service delivery coaching plans to ensure knowledge is transferred into practice (Bertram et al., 2015; Fixsen et al., 2009; Metz & Bartley, 2012). These coaching plans describe methods (e.g., direct observation, reflection, and role play) to increase practitioner’s capacity to (a) master EBP and criminological literacy (e.g., conversant about static [criminal history] and dynamic [criminological needs] risk factors); (b) identify personal and professional supports; and (c) demonstrate behavior change for accountability (Bertram et al., 2015; Cullen et al., 2012; Goodman, 2015; Latessa et al., 2002; Magaletta & Verdeyen, 2005; Matthews, 2009; Metz & Bartley, 2012; Walker & Koroloff, 2007).

**Performance Assessment.** Performance assessment is the comprehensive measurement of a practitioner’s skillfulness and fidelity to the intervention model and the degree to which the institutional environment supports or detracts from it (Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009; Fixsen et al., 2005; NIRN, 2015). Fidelity has to do with model integrity—alignment of practitioner performance with the key principles of the practice model (Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009; Metz & Bartley, 2012).

Performance assessment involves measuring context, compliance, and competence (NIRN, 2015). Context measures evaluate whether organizational structures, such as training and coaching plans, are accessible and utilized, while compliance measures determine whether staff
conform to EBP implementation standards as outlined in policy and procedures (NIRN, 2015). Competence measures focus on practice fidelity and effectiveness (NIRN, 2015). Performance assessment results are communicated through feedback loops that inform ongoing improvements (e.g., with coaches, facilitative administration; NIRN, 2015).

The performance assessment themes were *practitioner monitoring* and *organizational monitoring* (Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009). Practitioner monitoring pertains to ongoing process and outcome monitoring (Damschroder, 2009; Fischer & Blyler, 2009). Compliance and competence measures would be used to assess the rate at which the EBP is being implemented (Aarons et al., 2011; Fischer & Blyler, 2009; NIRN, 2015). For example, a supervisor would assess whether the practitioner has developed an individualized treatment plan for each participant that is consistent with the EBP protocol (Fischer & Blyler, 2009; NIRN, 2015). Another aspect of practitioner monitoring involves assessing outcomes to determine the effectiveness of treatment (Aarons et al., 2011; Damschroder et al., 2009). For example, positive outcomes would be demonstrated through symptom reduction and/or achievement of treatment goals (Bernfeld, 2006; Bertram et al., 2015; Fischer & Blyler, 2009; Lee & Stohr, 2012).

Organizational monitoring is measuring how well organizational policy and procedures are supporting and connected to practice (Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009; Fixsen et al., 2007). Monitoring organizational performance is critical because practitioner performance is partially dependent upon how the organization supports EBP implementation, especially in the correctional setting (Aarons et al., 2011; Joplin et al., 2004). Context measures are used to determine whether staff selection, training, and coaching drivers have been operationalized to increase proficiency in implementing EBP (Aarons et al., 2011;
Alexander et al., 2011; Damschroder et al., 2009; Fixsen et al., 2009). For example, context measures might monitor training and coaching practices and outcomes (e.g., pre/post-tests; Aarons et al., 2011; Bertram et al., 2015; Fixsen et al., 2009). Training and coaching data would demonstrate whether training material was available and being used to guide practice (Bertram et al., 2015).

**Organizational Drivers**

Organizational drivers shape and sustain a hospitable organizational environment, which supports staff competence (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Cullen et al., 2012; Damschroder et al., 2009; Fixsen et al., 2009; Magaletta & Boothby, 2003). The organizational drivers—decision support data systems, facilitative administration, and systems level drivers—are described below.

**Decision support data systems.** Decision support data systems are the data-based decision-making infrastructures and processes that provide ready access to critical information necessary to implement EBP with fidelity (Alexander, 2011; Bertram et al., 2015; Fixsen et al., 2009). Such systems facilitate competent decision-making by infusing evidence into the decision-making process, to achieve optimal innovation transfer (Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009; Magaletta, Morgan, Reitzel, & Innes, 2007). Emergent themes for decision support data systems were *local clinical scientist frame* and *quality assurance*.

The local clinical scientist frame is a scientifically minded approach to decision-making in practice systems, in which strategies for seeking opportunity and problem-solving are developed through collection and utilization of local evidence (Stricker & Trierweiler, 1995). Local evidence is generated by applying scientific principles, such as direct observation of an
EBP intervention, to determine effectiveness within a practice setting (Stricker & Trierweiler, 1995). Local evidence is inherently credible to local stakeholders, and when applied to the practice setting, can inform goals, policies, procedures, and accountability (Aarons et al., 2011; Bertram et al., 2015; Cullen et al., 2012; Fixsen et al., 2007; Kilbourne, Neumann, Pincus, Bauer, & Stall, 2007; Latessa et al., 2002; Magaletta et al., 2007; Paul & Feuerbach, 2008). This evidence stabilizes the implementation environment and becomes local knowledge over time (Stricker & Trierweiler, 1995; Warburton & Martin, 1999). Local knowledge, established through policies and procedures (i.e., Directives) is (a) informed by correctional intervention principles, (b) communicated through well-defined “what works” organizational goals, and (c) operationalized through implementation drivers (e.g., staff roles such as for correctional officer; Alexander, 2011; Cullen et al., 2012; Gendreau et al., 2009; Latessa et al., 2002; Lee & Stohr, 2012; Paul & Feuerbach, 2008).

Quality assurance is essentially the system for checking on the implementation processes and mechanisms that ensure model fidelity (Alexander, 2011; Bertram et al., 2015; Damschroder et al., 2009; Fixsen et al., 2007). Processes are developed, such as “plan, study, do, act,” to guide the complex endeavors of ensuring continuous quality improvements (Bertram et al., 2015; Damschroder et al., 2009). Moreover, mechanisms for quality assurance, such as EBP-informed reports, are developed that proactively check implementation strategies and detect barriers to implementation (Alexander, 2011; Bertram et al., 2015; Cullen et al., 2012; Damschroder et al., 2009; Gendreau et al., 2009; Latessa et al., 2002). For example, a quality assurance mechanism might determine that caseload size is too large for effective implementation and prompt the organization to review the policies and systems that led to the overload (Bertram et al., 2015).
Facilitative administration. Facilitative administration supports implementation efforts by developing organizational structures and processes for effective EBP implementation (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Damschroder, et al., 2009; Fixsen et al., 2009). Two themes emerged under facilitative administration: organizational restructure and hospitable environments.

Organizational restructuring has to do with reshaping organizational policies and procedures to support effective implementation (Cullen et al., 2012). An organizational restructure requires a critical assessment of policies, procedures, and data systems to better understand the factors that support/deter EBP implementation in an organization (Aarons et al., 2011; Bertram et al., 2015; Boone & Sperber, 2007; Damschroder, et al., 2009; Paul & Feuerbach, 2008). The results of the organizational assessment are used to build a conceptual model for an organizational restructure, which involves weaving together the assessment results with EBP theory and guiding principles (Aarons et al., 2011; Bartol, 2015; Bertram et al., 2015; Boone & Sperber, 2007). The organizational restructure would involve shaping existing data systems that inform workforce composition and workflow patterns (Aarons et al., 2011; Bertram et al., 2105; Damschroder et al., 2009). In addition, practice- and policy-informed networks would be restructured through actively disseminating guidelines to improve culture (norms, values, and assumptions) and organizational climate (staff buy-in) for EBP implementation (Aarons et al., 2011; Bertram et al., 2011; Bhattacharyya, Reeves, & Zwarenstein, 2009; Damschroder et al., 2009; Bruns, Rast, Peterson, Walker, & Bosworth, 2006; Fixsen et al., 2007; Metz & Bartley, 2012). For example, facilitative administration would develop staff core competencies through training/coaching plans that increase engagement and support fidelity; tailor EBP record keeping and reporting through DSDS; involve stakeholders to include
legislative action, and incorporate accountability strategies at all levels (Aarons et al., 2011; Bertram et al., 2015; Boone & Sperber, 2007; Damschroder et al., 2009; Metz & Bartley, 2012).

Hospitable environments are established through revised and restructured policies and procedures that inform an organizational culture of support (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Damschroder et al., 2009). For example, hospitable environments are constructed through appropriating funding to hire and retain highly skilled practitioners (Aarons et al., 2011; Bertram et al., 2015; Boyle & Wieder, 2007; Hall & Hall, 2002; Kiraly, 2001). These hospitable environments are informed by the organizational mission (to include goals and organizational priorities) and policies to provide practitioners with a safe and supportive work environment (Aarons et al., 2011; Bertram et al., 2015; Boyle & Wieder, 2007; Bruns et al., 2006; Fixsen et al., 2009; Hall & Hall, 2002; Kiraly, 2001). Coaching and supervisory supports, relevant training, and advancement opportunities are additional examples of the architecture of a hospitable environment (Aarons, 2011; Bertram et al., 2015; Damschroder et al., 2009).

Collaboration is also an essential element of a hospitable environment. Collaboration involves facilitative administration working together with staff and stakeholders to co-define roles, goals, and priorities and review local evidence (Bertram et al., 2011; Boone & Sperber, 2007; Bruns et al., 2006; Damschroder et al., 2009; Metz & Bartley, 2012). For example, committees would be assembled to evaluate, provide, and consider feedback for staff and organizational performance (e.g., access to supervision/coaches) to increase collaboration (Bruns et al., 2006). These types of collaborative efforts help detect model drift by establishing cooperating practice and policy systems to implement EBP (Bertram et al., 2015).

**Systems level driver.** The systems level driver has to do with the multiple systems (organization, local, state and federal) that interact with EBP implementation, from practice to
public policy (Alexander, 2011; Bertram et al., 2015; Magaletta et al., 2007). Trends in external and linked systems have direct implications for practice and policy such as the work in funding programs over time (Aarons et al., 2011; Bernfeld, 2006; Bertram et al., 2015; Bowen & Zwi, 2005). The systems themes that emerged are systems assessment and systems protocols.

Systems assessment is an evaluation of EBP-relevant systems that results in a comprehensive knowledge base of the dynamic factors that influence implementation (Aarons et al., 2011; Bertram et al., 2015; Briand & Menear, 2014; Damschroder et al., 2009). Magaletta et al. (2005) described this type of analysis as “understanding segregation [SHUs] as a constantly interacting set of individuals, contexts, and processes” (p. 34). Developing and maintaining a comprehensive knowledge base of these nested systems is the outcome of the system assessment (Aarons et al., 2011; Magaletta et al., 2007). Once developed, this data base of dynamic constraining and supporting factors would be regularly updated to negotiate resource acquisition within these fluctuating systems (e.g., funding for staff development; Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009). For example, regular updates would include the ongoing assessment of whether policy administrators are effectively communicating needs and rationale for funding with stakeholders.

Systems protocols are the structures and strategies that inform organizational networks and relationships with stakeholders (Damschroder et al., 2009). Formal and informal networks (e.g., contracting with academic partners) at the provider, local, state, and federal levels increase proficiency in securing program needs and resources (Aarons et al., 2011; Bertram et al., 2015; Damschroder et al., 2009). Another vital aspect of systems protocols is building collaborative relationships with stakeholders who champion access of needed supports/resources while addressing competing pressures (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015).
Leadership Drivers

High-level leadership and commitment are critical to effective EBP implementation. Leadership develops the high-level strategies that guide management decisions, which in turn, influence organizational change and staff competence (Aarons et al., 2011; Bertram et al., 2015). The technical and adaptive leadership themes are described below.

Technical leadership. Technical leadership focuses on strategic guidance and support for established policies and procedures (Bertram et al., 2015; Heller & Arozullah, 2001; Lee & Stohr, 2012). The technical leadership themes were policy management and procedural guidance (Alexander, 2011; Bertram et al., 2015; Fixsen et al., 2009).

Policy management involves ensuring that newly revised, disseminated policies are subsequently adhered to as appropriate (Bertram et al., 2015; Lee & Stohr, 2012). An example of policy management would be ensuring that selection criteria are accessible and clearly written for staff who are engaged in hiring processes (Bertram et al., 2015). Procedural guidance, on the other hand, involves providing instruction on how to optimally carry out new or revised policies (Bertram et al., 2015; Lee & Stohr, 2012). Procedural guidance would encourage hiring competent staff using established selection criteria so that staff are not being hired simply for the sake of numbers (Bertram et al., 2015).

Adaptive leadership. Adaptive leadership involves reading and responding to changes in internal and external environments to support and protect EBP implementation (Aarons et al., 2011; Bertram et al., 2015; Kupers et al., 2009). Adaptive leadership addresses challenges within difficult implementation environments through developing creative, effective strategies for increasing success with implementing EBP (Aarons et al., 2011; Bertram et al., 2015; Chassin &
Loeb, 2011; Cullen et al., 2012). The adaptive leadership themes were organizational supports, professional identity, and build-in accountability.

Adaptive leadership establishes organizational supports through visible, bold action at all levels (provider, organizational, and system) so that the organizational environment is increasingly conducive to routine implementation success (Aarons et al., 2011; Alexander, 2011; Bertram et al., 2015; Briand & Menear, 2014; Cullen et al., 2012; Kupers et al., 2009). Visible, bold action involves being present and ensuring that resources are readily available to staff who are implementing the EBP (e.g., trainers; Aarons et al., 2011; Bertram et al., 2015; Kupers et al., 2009). Garnering organizational support also involves bold actions to create political, financial, and other changes that facilitate implementation of EBPs (Briand & Menear, 2014; Kupers et al., 2009; Paul & Feuerbach, 2008).

Adaptive leadership also encourages the integration of EBP values and beliefs into the professional identity of staff (Aarons et al., 2011; Bertram et al., 2015; Briand & Menear, 2014; Cullen et al., 2012; Magaletta et al., 2011). Professional identity would be consolidated through organizational priorities such as staff well-being that could be communicated through adaptive leadership (Alexander, 2011; Bertram et al., 2015; Kupers et al., 2009; Paul & Feuerbach, 2008). For example, leadership could show staff that their commitment to EBP implementation is valued by using staff feedback in resolving problems. In doing so, staff would be encouraged to increasingly embrace ownership of implementing EBP with fidelity and build the profession (Alexander, 2011; Paul & Feuerbach, 2008).

Adaptive leadership also builds accountability, which supports efficient use of resources (Cohn, 2002; Cullen et al., 2012). Lack of accountability structures is one of the fundamental reasons why EBP implementation fails (Aarons et al., 2011; Bertram et al., 2015; Boyle &
Weider, 2007; Cullen et al., 2012). Adaptive leadership builds in policies such as completing certifications and demonstrating learning goals in practice to enhance accountability.

**Discussion**

In this section, I discuss four conclusions I’ve derived from my review of the extant literature. Then, I describe the major implications of the findings for practice and policy, including an application for a particular implementation context. Finally, I conclude with the limitations of the research and findings, recommendations for future research, and a personal reflection.

The four major conclusions are:

1. The correctional and implementation science literatures provide the evidence-based groundwork for effective EBP implementation in correctional settings (i.e., the CAIF).
2. Supporting staff competence is foundational to replacing the *nothing works* mental health prison treatment environment that has perpetuated ineffective practice and undermined EBP implementation.
3. Although political pressure can encourage change, it also often has unintended negative effects (such as paper implementation) when ill-informed and unrealistic; therefore, educating decision-makers about the fundamentals of implementation science and advocating for more reasonable expectations, resources and timelines would improve the prospects for successful EBP implementation in correctional settings.
4. Applying implementation science to the correctional setting will require bold leadership. The correctional setting is a dangerous environment, so people are inherently reticent to change, requiring bold leadership even more. Informed, resolute EBP-principled action
steps could transform this closed setting, as leaders boldly demonstrate that these
strategies serve to support safe and stable environments.

**Implications of the Findings, for Practice and Policy**

This section will discuss how the application of relevant CAIF principles could overcome
some of the barriers encountered by GMCF BHU’s in implementing the EBP *Thinking for a
Change* (T4C). T4C was selected by OMH administrators to provide daily two-hours out-of-cell
therapeutic programming in the GMCF BHU (Beck, 2011; NYSDOCCS, 2011). T4C is an
integrated cognitive behavioral EBP that has been developed specifically for correctional
populations. It has been adopted by the National Institute of Corrections (NIC) for
implementation in correctional settings nationally (Hall, 2012; Lowenkamp et al., 2009, Suggs,
2011). T4C uses interpersonal skills training, cognitive restructuring and cognitive skills training
to target criminogenic needs and other risk factors (e.g., deficits in problem-solving and
interpersonal skills, medication noncompliance) for criminal behavior (Suggs, 2011). T4C has
been well researched and shown to be effective in reducing recidivism (Lowenkamp et al., 2009;
Suggs, 2011).

Several barriers arose as implementation of T4C was attempted in the BHUs. The first
and most prominent barrier was poor staff attitudes and organizational norms that pressured staff
to conform to the status quo of punishment (2011 Public Hearing; Beck, 2011). Many questions
about practitioner and other professional staff attitudes and competence in accurately diagnosing,
appropriately discharging, and making medication changes have been raised in public reports

To address this barrier, staff selection practices could be reviewed to determine whether
selection criteria were appropriate to the EBP and utilized in the hiring process for all staff.
Remedial actions could be taken immediately to address staff selection deficits through both technical and adaptive leadership in making sure that policies and procedures were effective and followed. Increased training, coaching, and performance monitoring could be used to shift competence and support and reinforce high-level performance. Also, an organizational-level evaluation could determine the extent to which administrators were following T4C’s technical and training support guidelines in providing necessary resources and monitoring through T4C’s certification process.

Unintended negative consequences of political pressures brought to bear by politicians, legal, and advocacy groups emerged as another barrier to successful implementation of T4C. These types of pressures can lead to what Fixsen et al. (2005) described as “paper implementation”—adopting new policy and procedures on paper without executing them on the ground, as a way of pacifying external agents of control and oversight (p. 6). The CAIF would address this barrier through adaptive leadership and systems level drivers.

Rather than react to political and other system pressures, adaptive leadership would use the CAIF guidance in implementing T4C, as T4C provides evidence-based instruction, so that science rather than politics build correctional mental health training programs. The CAIF guidance supplements these T4C guidelines so that mental health science informs practices such as for assessment and diagnosis, prescription of medication, and discharge. The CAIF could also be used to negotiate reasonable expectations about the resources and time needed to achieve the intended outcomes/goals.

The CAIF would also address the effect of politics through the systems level driver, using collaborative strategies and educating policymakers. The convening of Public Hearings on mental health programs demonstrates that politicians and advocacy groups are interested in
building collaborative solutions for these entrenched problems. Educational resources which are recommended and available through agencies such as the NIC would be an integral part of a CAIF plan in providing collaborative solutions. For example, facilitative administrators would build relationships with NIC personnel, accessing their expertise to provide state-of-the-art training resources for systems level groups.

The third barrier to successfully implementing T4C was an organizational culture of punishment, fortified by the lack of performance assessment and accountability for program implementation (2011 Public Hearing, CQCAPD, 2010, 2013; MHASC, 2014). The relevant CAIF components would be facilitative administration and adaptive leadership. The CAIF guides facilitative administration by informing and revising policies and procedures in T4C’s manuals so that accountability measures are part of regular practice. An example of an accountability strategy could be to provide incentives, such as a choice work schedule, for staff who demonstrate use of training material during coaching sessions (Cullen et al., 2009). In addition, facilitative administrators use adaptive leadership strategies such as role modeling and adopting strong, effective policies and procedures that support professional development. For example, rather than discharging inmates who engage in what seem to be recalcitrant misbehaviors, facilitative administrators would provide training and coaching to encourage T4C interventions targeting criminogenic needs that decrease such behaviors. Facilitative administration would openly lead through strengthening scientific practices. For example, presenting diagnostic criteria informed by T4C participant guidelines could become standard practice during treatment team meetings (Sullivan, 2001). Administrators also lead by collaborating with staff to promote positive outcomes and reward those who do that well.
Limitations

The principle limitation of the CAIF model is that it is based on a relatively new science that lacks an overarching theory (Damschroder et al., 2009; Proctor et al., 2009). Implementation science has shown promise in community correctional settings (Alexander, 2011); however, the use of these principles in the complex correctional mental health program treatment setting has not been attempted as far as this author is aware. Nonetheless, the CAIF guidance about a local clinical scientist frame could provide the guidelines for applying implementation science in the correctional setting. Integrating current data into ongoing practice, and testing and refining tentative conclusions could encourage building an overarching theory for implementing EBP in the correctional setting.

Another limitation to the CAIF model is that it requires competent staff, but the correctional literature demonstrates a lack of well-qualified candidates in correctional settings (Magaletta et al., 2007). Therefore, it would be critical to carefully monitor staff characteristics and performance. The next step would be to transfer/replace/retrain unqualified or underperforming staff. Collaborating with an educational partner with experience in developing correctional training programs also may help address this limitation.

A further limitation is the massive investment in time, money, and effort necessary to implement even a single EBP well. This is especially challenging, since stakeholders often underestimate the time, resources, and skills necessary for successful implementation. Although it would seem to hire an internal or external implementation specialist would add to this burden, the literature shows that this type of expertise supports EBP implementation in a way that is ultimately time- and cost-effective (Bertram et al., 2015; Metzner, 2009). An implementation specialist would educate internal and external stakeholders, facilitate/guide the implementation,
and provide technical and problem-solving assistance throughout the process, potentially resulting in extensive savings in financial and human capital over the long term.

Another limitation that needs to be considered is that this model focuses mainly on the initial stage of implementation. Implementation science suggests that drivers evolve across recursive phases of implementation; therefore, these stages need to be considered when testing this model. For instance, during the exploration stage of implementation, administrators would identify stakeholders who would invest in the project. While in the full implementation stage, stakeholders are provided evidence that EBP has been implemented to encourage continuing investment. Bertram et al. (2015) provides guidance about the considerations, processes, and tasks that define implementation stages.

**Future Research**

Future research to further develop and refine the CAIF model is needed. The CAIF will need to be field tested to determine how the recommended strategies and guidance can be further adapted to the complex correctional setting. One field test could be to determine whether and how staff selection criteria improve implementation climate. For example, staff selection criteria (particularly non-learnable criteria) for selecting correctional officers who demonstrate treatment receptiveness during structured interviewing could be developed. Then the incidences of reported inmate abuse could be measured to determine if using these criteria helped decrease these reports of abuse.

Conducting field tests in correctional settings such as the one under the auspices of the Federal Bureau of Prisons should improve success in implementing the CAIF model. These federal correctional mental health programs could provide a more receptive implementation setting since these correctional psychologists have introduced staff to clinical practice, opening
this setting to EBP. This group, however, has not incorporated implementation science into that work as far as this author is aware so the CAIF could be used to demonstrate its value for implementing EBP (see Magaletta & Boothby, 2003; Magaletta et al., 2005; Magaletta et al., 2007). Then, the CAIF could be introduced into the more unstable correctional treatment program environments such as the GMCF BHU once administrators were provided persuasive evidence produced in pilot testing.

Another area of future research is how the CAIF model could be operationalized/translated into an EBP implementation fidelity measure and/or planning tool, to guide implementation in correctional settings. A plan could be developed for building organizational capacity by using staff selection, training, and coaching drivers integrated with organizational drivers such as facilitative administration and leadership to implement EBP. A CAIF-informed tool could be a useful guide to the systematic implementation of EBP in correctional settings. This is one example of how the CAIF could be used in different applications.

Future research also could focus on refining theme definition discussed in this dissertation into core tasks to provide another level of operationalization to this work. For example, under staff selection criteria, a core task could be non-learnable criteria, which would be clearly articulating those personality characteristics that are essential for selecting the candidate who will effectively work with the identified correctional population. A core task for local clinical scientist frame could be local knowledge (see DSDS above). These core tasks could also be included in Table 2 to create a comprehensive, hands-on tool for implementation.

**Personal Reflections**

This dissertation was written with the intention to contribute to the literature on mental health programming in correctional settings, particularly for inmates with SMI by demonstrating
that mental health programs can be implemented in correctional settings through implementation science principles (i.e., CAIF). I did this by demonstrating how organizational change that supports staff competence can be realized to advance the rehabilitative ideal. The CAIF provides a pathway for rehabilitation of inmates who engage in dangerous behaviors, by leveraging opportunities and addressing barriers that constrain EBP implementation in the complex, stressful correctional setting.

My nothing works thinking was transformed through my experiences at the practice and executive administrator level while working in NYSDOCCS. During those eight years working in Corrections, I witnessed some of the worst—and best—outcomes in the different treatment settings that could be directly attributed to the principles in the CAIF. In this section, I will provide examples of my experiences and connect those with the CAIF guidance practically.

In what could be considered as a “rite of passage,” my first therapy group of approximately 20 prisoners—the worst of the worst in a medium-security setting—was hand-picked by my supervisor. One such prisoner was a 38-year-old Hispanic male who had previously refused or signed out of the program many times. Each day he would sit, slouched down in the back of the room, and challenge my interventions. Rather than confront, I used motivational interviewing techniques to carefully support self-efficacy, as I elicited change talk and rolled with his resistance. As the other group members witnessed our interactions, they also engaged. Each of them completed their program and many of them accepted work positions (e.g., inmate program assistants) after graduating. Inmates who participated in other programs that I supervised were successful in achieving treatment goals such as earning GEDs and participating in the apprenticeship programs to build job skills.
During this formative period of development, my supervisor provided both the guidance and support (see CAIF, Table 2, Competency Drivers: Coaching: Practitioner development) that I needed to be successful. As I demonstrated competence, I was also supported by both security staff and administration (see CAIF, Table 2, Organizational Drivers: Facilitative Administration: Hospitable environments). I was soon afterward selected to implement the Transitional Services project, and later, promoted to a position in which I supervised the implementation of the GMCF ASAT program in the maximum-security prison, which led to my work in the GMCF BHU. My initial training was vital to my work in the BHU (see CAIF, Table 2, Competency Drivers: Training: Education). I was very concerned about my safety because I worked with inmates that were assaultive and engaged in unhygienic acts. Again, my erroneous *nothing works* preconceptions about the worst-of-the-worst subsided as many of these inmate-patients responded to treatment.

I also sought to demonstrate how organizational change in this complex setting could be realized to advance the rehabilitative ideal. I witnessed organizational change during the early implementation efforts after the Sullivan BHU Director was brought in to assist the GMCF Unit Chief and stabilize the GMCF BHU. The Unit Chief had been selected as an interim director early on, as recruiting efforts had been unsuccessful in identifying a qualified candidate (see CAIF, Table 2, Staff Selection: Hiring Procedures). The UC did not have a mental health background so she relied on her staff to manage the program. OMH staff were the “the experts,” which served to thwart a multidisciplinary approach early on, as correctional officers took exception to their novice conclusions (see CAIF, Table 2, Decision Support Data Systems: Local Clinical Scientist Frame). The position the UC adopted resulted in OMH staff who were generally overwhelmed and treatment team discussions that were divisive (worsened by the
political pressures that each agency was managing: see CAIF, Table 2, Organizational Drivers: Systems Level: Systems Protocol). Without a supportive environment, the rift between DOCCS and OMH staff further impeded efforts to collaborate (see CAIF, Table 2, Leadership Drivers: Adaptive Leadership: Organizational Supports). Within 18 months about 17 of the OMH staff had either quit, transferred, or were dismissed.

The Sullivan BHU Director was brought in as a consultant several months into the implementation of the unit. Under the leadership and guidance of this psychologist in making small, yet astute changes, the program began to take shape (see CAIF, Table 2, Facilitative Administration: Organizational Restructure). For example, she showed respect for the chain of command (see CAIF, Table 2, Organizational Drivers: Systems Level: Systems protocol) in her interactions with the Superintendent, which was antithetical to the UC’s often aggressive approach. This BHU Director gained the Superintendent’s trust and, as a result, was provided opportunities to educate about EBP (see CAIF, Table 2, Staff Selection: Coaching: Knowledge Transfer). The message communicated—from the top down—was that she was competent, and, therefore, could be trusted (see CAIF, Table 2, Leadership Drivers: Adaptive Leadership: Professional Identity). She provided visible, supportive leadership to effect change from control and disempowerment to embed a host environment of empowerment as correctional staff responded to her collaborative interventions (see CAIF, Table 2, Organizational Drivers: Adaptive Leadership: Organizational Supports).

**Conclusion**

As a master’s level staff person, I was often frustrated by the pervasive injustices I observed in the “prison-industrial complex [that has] emerged as a social, financial, and political force” (Harowski, 2003, p. 238). Through the bold leadership of the Sullivan BHU Director,
however, I witnessed a shift from a nothing works culture to one in which mental health staff, correctional staff, and administrators engaged in dialog about treatment and change. I observed the Sullivan BHU director implement different CAIF strategies while she was supervising the unit, such as developing collaborative, strategic relationships with both administrative and line staff. These strategies yielded impressive results such as correctional officers who engaged in treatment team discussions and provided a stabilizing presence so that treatment groups met regularly.

Mass incarceration and immeasurable human suffering ensued—over 40 years ago—after the correctional and political community embraced Martinson’s (1974) “nothing works” philosophy. Although nothing works has seemed to be intractable—as in other real world settings—implementation science could join the how to with what works in a way that could prove to be a game changer. The CAIF provides the how to connect the correctional mission with practice and change the deeply rooted nothing works organizational culture into one that supports rehabilitation—correctional mental health treatment reform is possible.
References


IMPLEMENTING RESIDENTIAL MENTAL HEALTH TREATMENT


http://doi.10.13/journal.pmed.0020166

http://doi.10.1300/J374v03n02-12

http://search.proquest.com.antioch.idm.oclc.org/docview/1545106690?accountid=26438


New York State Assembly Standing Committee on Correction & Assembly Standing Committee on Mental Health (2011). Mental health treatment in prisons. Available from Assembly Committee on Corrections, AESOB, 11th Floor, Albany, New York 12248


New York State Commission on Quality Care and Advocacy for Persons with Disabilities (NYSCQCAPD; 2013). A review of: Mental health screening access to mental health


http://solitarywatch.com/facts/faq/


http://doi:10.1300/J076v45n01_01


IMPLEMENTING RESIDENTIAL MENTAL HEALTH TREATMENT


of New York (2013)


http://dx/doi.org/10.1080/09515070.2015.1016479


http://doi:10.1300/J160v07n01_08