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Supermax Prisons: The Policy and the Evidence

ABSTRACT

Supermaximum-security prisons—or “supermaxes”—symbolize the “get tough” criminal justice policies that arose over the past three decades in the United States and in other countries. Proponents believe that they effectively address critical prison system problems; opponents believe that they do not and that they create substantial harm. This essay examines the available evidence about supermaxes and, in so doing, examines a range of considerations relevant to determining whether supermaxes constitute effective policy. The considerations include: (1) definitional problems in discussing supermax incarceration; (2) five critical dimensions along which evidence for policies is desirable and along which supermaxes fall short, including demonstration of policy need, credible policy theory, high-quality implementation, impact, and benefits that exceed costs and do so more than other policies; (3) the challenge of assessing causal claims related to supermaxes; (4) legal and ethical issues; (5) policy and political challenges confronting states; (6) policy options other than supermaxes; and (7) research gaps that remain to be addressed. The essay concludes by discussing policy recommendations.

KEY WORDS: supermax prisons effectiveness evidence causation

Supermax Prisons: The Policy and the Evidence

Supermaximum security prisons—informally referred to as “supermaxes”—ascended into prominence during the 1980s and have since become a central feature of American corrections and of prison systems in other countries. They did not previously exist, although close approximations, such as Eastern State Penitentiary and Alcatraz, paved the way for them (Ward and Werlich 2003; Mears 2008b; J. I. Ross 2013). They did not emerge in a policy vacuum. Rather, throughout the past three decades, states began investing in supermaxes at the same time that they were investing in a wide range of other “get tough” policies, such as three-strikes-and-you’re-out laws. Supermaxes thus symbolize the modern era emphasis on more severe punishment and control-oriented efforts aimed at reducing crime. They are of interest for this reason, but they warrant attention for additional reasons. For example, supermaxes arose against a background of calls for government accountability, evidence-based policy, and cost-effectiveness, but, as this essay argues, significant questions exist about how well they respond to these calls. Not least, supermaxes represent a type of policy that does not neatly lend itself to “gold standard” evaluations—that is, experiments. Careful consideration of non-experimental approaches to assessing impact thus are needed, which in turn raises questions about what standards should be used for assessing causality and “evidence-based” policy.

A focus on supermax prisons is relevant for understanding criminal justice policy and identifying “evidence-based” approaches to punishment. And it is timely. Supermaxes emerged in part because of a belief that they cause improved outcomes, and yet considerable causal uncertainty exists regarding their impacts. In addition, supermaxes continue to be lightning rods for litigation (Mears and Watson 2006; Schlanger 2013). Some states have closed or are contemplating closing their supermaxes (Goode 2012; U.S. Government Accountability Office 2013). And nationally, some legislators, such as Senator Dick Durbin (2012), have called for reform of solitary confinement, including the use of supermax housing. The motivation for such calls stems in part from concerns about public safety and financial costs and perhaps from the

prominent concerns that arose about conditions at the Guantanamo and Abu Ghraib prisons (Mears 2004). For example, in his testimony, Senator Durbin emphasized human rights concerns, which have been prominent in many accounts of supermaxes (Jeffreys 2013; J. I. Ross 2013) and in condemnations of them by organizations such as Amnesty International, Human Rights Watch, and the United Nations, noting: “Our colleague and former POW John McCain said, ‘It’s an awful thing, solitary. It crushes your spirit and weakens your resistance more effectively than any other form of mistreatment.’” Subsequent to Senator Durbin’s testimony, the Federal Bureau of Prisons reportedly cut by 25 percent the number of inmates in segregation, closed two “Special Management Units,” and agreed to obtain an independent assessment, undertaken by the National Institute of Corrections, of federal supermax housing (Durbin 2013). What changes, at the federal and state levels, will occur over the next decade remains, of course, unknown, but the potential stakes for correctional systems, taxpayers, and inmates and their families are great.

With that context in mind, the goal of this essay is to examine the available evidence about supermaxes and, in so doing, examine a range of considerations relevant to determining whether supermaxes constitute effective policy. At the same time, the essay touches directly and indirectly on, and illustrates, themes emphasized by Sampson et al. (2013). To achieve this goal, the following topics are discussed: (1) definitional problems in discussing supermax housing and in distinguishing it from other types of solitary confinement or extended isolation; (2) five critical dimensions along which evidence for policies is desirable and along which supermaxes fall short, including demonstration of policy need, credible policy theory, high-quality implementation, impact, and benefits that exceed costs and do so more than other policies; (3) the challenge of assessing causal claims related to supermax prisons; (4) legal and ethical issues; (5) policy and political challenges confronting states; (6) policy options other than supermaxes; (7) research gaps that remain to be addressed; (8) links between Sampson et al.’s (2013) arguments about policymaking and causal uncertainty, on the one hand, and supermaxes, on the other. The essay concludes by discussing policy implications and recommendations.

1. DEFINITIONAL PROBLEMS

Descriptive and historical accounts of supermaxes have proliferated over the past decade (see, e.g., Kurki and Morris 2001; Neal 2003; Ward and Werlich 2003; Bruton 2004; Rhodes 2004; King 2005; Smith 2006; Mears 2008b; Shalev 2009; Brown, Cambier, and Agha 2011; J. I. Ross 2013; U.S. Government Accountability Office 2013). These accounts typically have highlighted that the idea, or the design, of supermax incarceration originates with the Walnut Street Jail in the late 1700s, Eastern State Penitentiary and Auburn Prison in the early to mid-1800s, Alcatraz in the mid-1900s, and, most recently, the Marion, Illinois, federal facility. In each instance, there is an emphasis on extended solitary confinement.

What makes modern supermax incarceration different is the large-scale use of extended isolation as a “concentration” strategy (Riveland 1999b). That is, rather than disperse troublesome inmates to different facilities, states “concentrate” the putatively “worst of the worst” inmates in one place. Prison systems have always had recourse to brief lockdowns, in which inmates are confined to their cells with little to no opportunity to leave, and to maximum security prisons. But “seldom have those prisons operated on a total lockdown basis as normal routine. Even prisons designated as maximum security have generally allowed movement, inmate interaction, congregate programs, and work opportunities” (Riveland 1999b:5).

Supermax incarceration is not unique to the United States. Smith (2008), for example, has described the use of supermax-like confinement in Denmark from 1870-1920. (Interestingly, and echoing themes that emerge from contemporary critiques of supermax prisons, he found that during this period, prison authorities acknowledged what they saw to be damaging mental health effects of supermax incarceration.) A recent edited volume by J. I. Ross (2013) documents the use of supermax incarceration in many other countries, including Australia, Brazil, Britain, Canada, Denmark, France, Mexico, and South Africa. Other studies point to the use of supermax incarceration in the Netherlands and Wales (King and Resodihardjo 2010), Russia and Turkey

(King 2007), and Iceland, Norway, and Sweden (Smith 2006). Although not exclusively found in countries guided by democratic forms of government, supermax incarceration appears to be largely “a product of democracies” (J. I. Ross 2013:2). Any such observation, however, must be tempered by the fact that no extant study comprehensively documents—through the use of a consistent definition of what constitutes “supermax” housing—the historical or contemporary use of supermax prisons globally.

Before discussing this definitional issue further, there is, first, the question of why supermax housing has become widespread. Many accounts exist, some more theoretically elaborate than others, but none that are easily susceptible to empirical assessment. Prison systems may have felt that the rapid increase in prison populations required more aggressive approaches to managing inmates. Inmates in fact may have become more difficult to manage. Outbreaks of prison violence, including murders and riots, may have played a key role. Prison system expansion led to increased hiring of less experienced officers in an occupation that can be highly stressful and combustible; the expansion and hiring of such officers may have contributed to the felt need to take new, dramatic steps to control inmates. States may have sought to find new ways of demonstrating their tough-on-crime credentials. Correctional systems may have sought to appear or to be at the “vanguard” of new ways to operate prisons. Conservative ideologies, emphasizing punishment and control, may have been a factor. Broader, societal shifts toward locating the cause of social problems in individuals, too, may have been a factor. Dissatisfaction with “failed” rehabilitative efforts may have dovetailed with such possibilities. These and other explanations have been proffered (see, e.g., Toch 2001, 2003; Ward and Werlich 2003; King 1999, 2005; Smith 2006; Mears 2008a-b). There remains, however, little empirical assessment of them, and many examples exist where the explanations do not neatly fit (see, generally, J. I. Ross 2013).

How many supermax prisoners exist and what exactly is a supermax? Thirty years ago, the only supermax facility in the United States was the Marion, Illinois, supermax. As of 2005, there were an estimated 44 states with supermax housing that held approximately 25,000 inmates

(Mears 2006, 2008b); Rhodes (2004) estimated that 60 supermax facilities existed. Other estimates exist (see, e.g., National Institute of Corrections 1997; King 1999; Smith 2006; Naday et al. 2008). But arriving at a precise current estimate has proven challenging. Why?

One reason is that there remains no unequivocal, agreed-upon census of supermax inmates (Naday et al. 2008; Butler et al. 2013). States use different names for supermax housing, and some embrace the “supermax” terminology while others eschew it. Architectural issues come into play: in some cases, supermax prisons are stand-alone facilities, and in others a wing or tier of a facility may be designated for supermax “housing.” Some entail a heavy reliance on technology, others less so. Most states appear to hew to a focus on single-cell confinement for supermax housing, but some accounts indicate that supermax housing can be used to hold two inmates to a cell. Supermax confinement entails 23-hour-per-day confinement, but some accounts indicate that it may be shorter and that some minimal movement outside of the cell is allowed. States vary in the number of months that inmates may serve in supermax. But states do not provide annual, comprehensive empirical descriptions of actual inmate stays and variation in such stays over the life-course of an inmate’s term of incarceration, or, if they do, such descriptions are not readily available; a study in Florida stands as one of the few exceptions (Mears and Bales 2010; see also Lowen and Isaacs 2012). States vary, too, in who they view as appropriate for supermax confinement. The phrase “worst of the worst” frequently is used to typify inmates who “belong” in supermax incarceration, but no consistent, operationalized definition of such inmates exists. In some cases, inmates must commit certain acts, such as violence, while in prison to be sent to supermax; in others, belonging to a prison gang, or “security threat group,” is sufficient (Mears and Watson 2006).

Some accounts distinguish between types of solitary confinement or segregation, with supermax housing constituting one type. For example, Shalev (2009:2) describes three types: (1) punitive segregation, which involves temporary isolation as punishment for misconduct; (2) protective segregation, which involves temporary isolation as a means of protecting vulnerable inmates; and (3) administrative segregation, which involves long-term isolation as a means of

managing certain types of inmates (e.g., security threat group members and prisoners who have committed extreme violence, are at risk of violence, or incite others to act out). The latter is typically what captures the “spirit” of what is meant by supermax housing, though even then ambiguity emerges from the fact that prison systems sometimes house inmates in long-term isolation for what appear to be punitive, and not only managerial, purposes (Riveland 1999b; Kurki and Morris 2001; Mears and Watson 2006; U.S. Government Accountability Office 2013).

If all of these different groups are combined, and if we include inmates in isolation who are on death row, then the total number of inmates in some form of isolated confinement—both shorter-term isolation and longer-term “supermax” isolation—necessarily exceeds the 25,000 estimate above. For example, according to an analysis of the Bureau of Justice Statistics’ Census of State and Federal Correctional Facilities, most recently conducted in 2005 (Stephan 2008), an estimated 81,622 inmates reside in some form of what the Bureau refers to as “restricted housing,” including individuals who are in protective custody, disciplinary segregation, administrative segregation, and death row (see Browne, Cambier, and Agha 2011:46; see also Jacobson 2012).

This latter estimate is more relevant to discussions about whether any use of isolation—whether for short-term stays or for long-term stays—for any correctional system goals is appropriate (see, e.g., Shalev 2009; Browne, Cambier, and Agha 2011). Even then, definitional ambiguity undermines the validity of this estimate (see Jacobson 2012); for example, some inmates might be placed in supermax housing for shorter periods of time than an inmate in protective custody (see Mears and Bales 2010). The estimate of 25,000 supermax inmates likely is preferable if we wish to focus primarily on the approximate number of inmates placed in longer-term segregation that is termed “supermax” or that is used primarily for managing certain inmates to achieve goals other than protecting such inmates or temporarily punishing them. Even then, it stands as but a rough approximation. It does not, for example, take into account the extent to which some inmates are repeatedly placed in such housing. And it encounters the same challenges that have arisen with other attempts to estimate the supermax population (e.g., King

1999; Riveland 1999b; Naday et al. 2008; Butler et al. 2013).

In the end, the elements of supermax housing that are common to most accounts, and that constitute the core aspects of the National Institute of Corrections' (1997) definition, include single-cell confinement (i.e., one person to a cell) for extended periods of time—beyond what would be associated with temporary stays for punitive or protective segregation—with little to no opportunities for programming, services, and visitation. Indeed, in a national survey of prison wardens, which utilized a similar definition, over 90 percent of respondents agreed with this definition (Mears and Castro 2006). That does not mean that the definition is “correct” (Naday et al. 2008; Butler et al. 2013). But it does suggest that it captures several critical dimensions of what conventionally is meant by “supermax” incarceration, including the emphasis on extended isolation with a priority given to achieving management-oriented goals (Shalev 2009:2).

Supermaxes are funded by taxpayers, but decisions to enact the policy derive in large part from legislatures, which may call for the use of supermax housing, or from corrections officials, who also may call for them. However, they do not reflect a type of sentencing law. Rather, they constitute a type of administrative tool that corrections officials can use to help manage the prison system (Shalev 2009:2). Accordingly, the placement of inmates in supermax housing is an administrative decision. The courts do not sentence individuals to supermax confinement. Rather, prison officials determine whether to have supermax housing and how and for whom it shall be used. Here, then, we have the basis not only for considerable variation in what is meant by “supermax” housing but also for variation in the goals and uses to which any type of extended isolation, whether termed “supermax” or not, is put.

Ambiguity concerning the definition and goals of supermaxes is paralleled by ambiguity concerning the relevant counterfactual condition—that is, what would have been implemented instead of supermax housing. For example, supermax housing has been described as arising in lieu of interventions that would have been used to achieve similar goals (Mears 2006). That is, such housing is not always created as an alternative to building some type of prison; instead, it represents an intervention aimed at achieving particular goals. Accordingly, any account of

supermax effectiveness must address the precise purposes for supermax housing in a particular context, how and for whom such housing is employed, and what alternatives to supermaxes, or what other uses of the funds used for them, would have been adopted.

2. FIVE KEY DIMENSIONS ALONG WHICH EVIDENCE IS NEEDED

Policies ideally are evidence-based. Indeed, that ideal has been emphasized explicitly by policymakers in recent decades (Welsh and Harris 2008). But what do we mean by “evidence”? Some accounts define evidence as the existence of results from experimental studies. Others define it as resulting from using experiments or quasi-experimental designs to evaluate a policy. Still other accounts define evidence-based policy as arising when we have “scientific evidence,” such as empirical research of some unspecified type. Similar inconsistency arises in descriptions of what is meant by government “accountability” (Mears 2010).

Without a doubt, a central focus when discussing “evidence-based” policy should presumably center around the question of whether the policy produces intended outcomes. Specifically, does it cause beneficial outcomes to arise that otherwise, absent the policy, would not? However, this approach is arguably too narrow. It ignores, for example, the basic question of whether an effective policy is needed, and it ignores the salience of existing theory and research for a priori assessing the credibility of causal impact claims and evaluations.

A broader, more systematic approach to defining evidence—and to considering causal claims about specific policies (or programs, interventions, rules, practices, etc.)—is to use the evaluation hierarchy. Rossi et al. (2004) describe the hierarchy as consisting of five levels, including assessment of: (1) the need for a policy, (2) the theory, or causal logic, of a policy, (3) policy implementation, (4) impact, and (5) cost-efficiency. Accordingly, we can define an “evidence-based” policy as one where we can successfully conclude that each level of the hierarchy has been examined and resulted in an affirmative assessment of the policy (Mears 2010). For example, an evidence-based policy would be one in which there is an empirically

demonstrated need for it, credible theoretical or causal logic for expecting impacts, high-quality implementation, demonstrated impact(s), and empirical documentation that the benefits exceed the costs and do so to a greater extent than potential alternatives.

The type of “evidence” needed for each level of the hierarchy may vary, but theory, logic, and empirical research typically apply in each instance. In addition, although causal claims are clearly prominent when discussing impact, they are relevant as well to the other dimensions of the hierarchy, but in ways that are not always or even frequently resolvable through recourse to experiments or quasi-experimental research. Use of evaluation hierarchy is helpful for many reasons, including identifying what has not been addressed in prior research and in understanding better the policy dimensions that a given study or set of studies addresses. Among other things, it can provide a corrective against overstating the relevance of any one study to debates about the merits of a given policy (Rossi et al. 2004; Mears 2010).

If we apply the evaluation hierarchy to supermax prisons, what do we learn and what lessons can we draw? Below, I briefly summarize the state of research with respect to each of the above dimensions and, in so doing, draw on and extend a prior assessment (Mears 2008b). Although meta-analyses are ideal for arriving at systematic assessments of research on a given topic, there remain too few studies of supermaxes, with respect to the five dimensions above, to undertake such assessments. In the subsequent sections, I discuss the implications of research on supermaxes and related issues that bear on discussions more broadly of causality and policy.

Need

Were supermaxes needed in the first place? Are they needed now? The short answer—nobody knows, at least not if empirical research is the basis for answering the question. The longer answer entails consideration of several related questions. For example, what problems were supermaxes designed to address? How large were the problems? What produced them? Were supermaxes the most logical solution? For example, did they best address the cause of the

problem and do so at the least financial or human cost?

In many accounts, policymakers and prison officials justify supermaxes on the grounds that they serve to “control” the “worst of the worst” (Riveland 1999b; King 2005; Shalev 2009). But placing inmates in extended solitary confinement is not a goal. Rather, it constitutes a means to an end. What, then, is that end, or goal? It varies across states and depends on the specific officials who are asked; frequently, there is no explicitly stated goal or the language opaquely refers to a focus on “controlling” certain inmates, without clarifying what broader goals this focus addresses (Mears and Watson 2006). In one national survey of wardens, respondents said that the main goal of having supermaxes was to increase safety and order throughout the prison system, but half or more said that supermaxes served other goals, including incapacitation of violent inmates, decreasing riots, reducing the influence of gangs, preventing escapes, punishing inmates, and reducing recidivism (Mears 2005). One-third of respondents said a goal of supermaxes is improve public safety through general deterrence.

In discussions with policymakers and officials in different states, I have been told in no uncertain terms what “the” goal of supermaxes is, only then to be told by other policymakers and officials—again, in no uncertain terms—that “the” true goal differs. Frequently, no government or correctional system documents are not available to document a given goal, or the documents, as noted above, describe a strategy of housing violent and disruptive inmates in isolation without clarifying precisely the goals that this strategy achieves (Mears and Watson 2006).

In the end, there is no “right” or “wrong” goal, only the goal that was envisioned by those responsible for creating supermaxes, that is, policymakers and corrections officials. To date, the precise and varied goals associated with specific supermaxes has not been systematically assessed within or across states, save for one study that documented a wide range of competing views about the putative goals that supermaxes are supposed to achieve (Mears and Watson 2006; see also Mears 2005; Mears and Castro 2006). Regardless, to the extent that a given state has several goals for its supermax housing, then any evaluation of impact should assess the degree to which the housing achieves these specific goals.

Focusing on the goals associated with supermax is important because it draws our attention to the problem that they are intended to solve. In turn, we can turn to the questions above. For example, how large is the problem and what caused it? Take the systemwide order and safety goal as an example. How much disorder and violence existed in a given prison system, and to what extent was it caused by a handful of the “worst of the worst” inmates (putting aside the question of how such inmates are defined and identified)? Answering that question, of course, requires having reliable and accurate information about the prevalence of disorder and violence and various factors that might have contributed to it. Few, if any, states, however, have database systems that accurately collect such information (Logan 1993; Reisig 1998; Bottoms 1999; Mears 2008a). Perhaps not surprisingly, then, it is difficult to identify any comprehensive, credible, empirical assessments of systemwide disorder and violence, the causes of that violence, and evidence that a select group of “worst of the worst” inmates contributed to it. Perhaps they did, or perhaps the levels of or increase in disorder and violence stemmed primarily from other factors, such as administrative management approaches, staff professionalism, availability and quality of programs, treatment, and services, staff and inmate culture (Adams 1992; Sparks et al. 1996; Gendreau and Keyes 2001; Irwin 2005; Mears and Reisig 2006).

By extension, it is also perhaps not surprising that, at least in some cases, states have begun to rethink their use of supermax prisons (U.S. Government Accountability Office 2013:34). For example, Walter Dickey, who was the director of the Wisconsin Division of Corrections from 1983-1987 and subsequently the Federal Monitor for the Supermax Prison at Boscobel, Wisconsin, noted on National Public Radio (2012): “I think one of the things that’s happened, at least in a lot of states, Wisconsin’s one of them, is I think we grossly exaggerated the need for the supermax prison and overbuilt it, and I think, not surprisingly, when you’ve got empty cells in a crowded prison system, you tend to fill them up.”

A final observation—one of the more compelling arguments for how supermaxes emerged is that corrections officials and policymakers felt that an emergency, such as a riot or spate of murders, existed (Mears and Watson 2006). They then felt that dramatic steps needed to be

taken to take control of prison systems and return to some level of order and safety (J. I. Ross 2013:7). However, prison officials do not all agree that supermax incarceration is appropriate or necessary (Mears and Castro 2006; Mears and Watson 2006; Goode 2012).

In addition, it is not clear that supermaxes have been built in response to riots (J. I. Ross 2013:180). Even if they were, the need in such cases is highly specific—an emergency exists that needs to be resolved in the immediate term until a longer-term solution can be found. Supermax housing might help correctional systems to regain order, if only temporarily, in situations in which riots or widespread violence occur, though that is open to debate (Bottoms 1999; Ward and Werlich 2003). For example, a supermax cannot be built instantaneously to resolve a riot. Regardless, even if supermaxes were useful in emergency situations, using such an approach on a long-term basis would be akin to using emergency rooms on a widespread basis to address basic health care problems. It simply would not make sense. For everyday health care problems, non-emergency room approaches constitute a more effective approach to creating health and treating sickness. Similarly, any correctional system response to emergency situations does not, on the face of it, logically indicate that the response is appropriate to everyday management of the system.

Recently, a U.S. Government Accountability Office (2013:33-34) report documented that several federal Bureau of Prison officials, supermax-like housing has enabled the prison system to reduce the use of lockdowns. Here, again, the question arises as to whether supermax housing stands as an obvious solution to some unspecified number of avoidable lockdowns. An answer necessarily involves understanding how specific inmates contribute to the lockdowns and what provoked their behavior or allowed it to occur. It also necessarily involves understanding what approaches other than supermax housing might work potentially better and at less cost.

Theory

A credible theory, or causal logic, typically is the bedrock of any policy. Without it, the

policy is unlikely to produce the desired outcomes (Rossi et al. 2004). A credible policy theory might be one that draws on different theories that themselves have been well-tested. It might also make assumptions that are empirically justified. For example, a program aimed at reducing recidivism might focus on reducing an ex-prisoner's level of strain. Doing so would fit well with a general strain theory perspective. However, it would not make sense if the ex-prisoner experienced relatively little strain and if, instead, his or her likelihood of offending stemmed largely from low self-control. A policy also is more likely to produce benefits to society if no sound theoretical argument can be presented for the policy causing harm. So, supermax incarceration may make sense if it rests on credible theories and if the assumptions on which it rests on are empirically supported. It also may make sense if there no credible theoretical argument exists that such incarceration may worsen inmate or prison outcomes.

Several accounts highlight that these conditions are not met. Certainly, theoretical arguments can be presented that seemingly make a credible case for supermaxes. For example, drawing on general deterrence theory, one might argue that supermax incarceration is so severe as to inspire fear among general population inmates and so induce order. Similarly, one could make the case for an incapacitation or specific deterrent effect; housing especially unruly and violent inmates in isolation should prevent them from committing violent acts or from inciting others to do commit them, and it may inspire fear and lead them to refrain from such acts after release.

Upon closer inspection, such accounts can be found to rest on assumptions that appear to be unrealistic or speculative. For example, few inmates are sent to supermax housing and those who are, in theory, will have committed extreme acts of violence. General population inmates thus could reasonably infer that there is little certainty of supermax confinement (Pizarro and Stenius 2004). And supermax inmates, if they truly constitute the "worst of the worst," would seem to be unlikely to be deterred by any special type of incarceration; indeed, some inmates may prefer supermax housing or may seek it out as a badge of honor (Singer 2003; Mears and Watson 2006). Some accounts suggest that removing disruptive inmates "normalizes" the prison environment in the rest of the prison system. However, this argument rests on the tenuous notion

that removing a handful of inmates from a given facility indeed frees up officers to invest more time watching other inmates, allows typical operations to unfold “normally,” and enables inmates to conform with prison rules. Perhaps in some instances these claims hold true, but it is not clear that they would be typical (Mears and Reisig 2006).

At the same time, many accounts suggest that supermaxes, by design, may anger inmates and lead them to act out more violently (Ward and Werlich 2003; Rhodes 2004; Mears and Watson 2006). For example, in her study, Rhodes (2004) described inmates who, after long-term solitary confinement, could no longer function in general population facilities. One officer noted: “[Inmates] spend so much time in single cells they get very paranoid. We have an inmate [who] went to a regular unit, but he only lasted a day . . . He said, I can’t stand it, people come up and talk to me” (p. 34; emphasis in original). The lack of services and programming in supermax housing, too, could be argued to contribute to a greater, rather than lesser, likelihood of engaging in violence after release (Haney 2003; King 2005).

Numerous accounts point to the seeming inhumanity of supermax incarceration and how it appears designed less to improve inmate behavior and more to degrade it (see, generally, Kurki and Morris 2001; Rhodes 2004; Shalev 2009; Tietz 2012; J. I. Ross 2013). These accounts may be correct. Indeed, a large body of studies, examined in several reviews (e.g., Haney 2003; Shalev 2009; Schlanger 2013) and highlighted in popular accounts (e.g., Gawande 2009; Tietz 2012), suggest that supermax confinement adversely affects mental health. These studies provide compelling, empirically-based arguments that the very conditions of such confinement contribute to mental illness, suicide, and impaired psychological functioning. At the same time, as other reviews have emphasized (e.g., Mears 2008b; O’Keefe et al. 2013) few of them employ strong research designs with appropriate comparison groups. Also, some studies have found no adverse effects of supermax housing on mental health (see, generally, Smith 2006; O’Keefe et al. 2013). There is, for example, the question of how much worse supermax incarceration affects mental health as compared to what would happen in maximum-security facilities. Considerable challenges arise in deciphering extant research and, not surprisingly, considerable debates exist

about which approaches and studies should be given greater weight (Smith 2006:450). Even so, the body of work to date provides reasonable theoretical counter-arguments that undermine the notion that supermaxes produce substantial benefits. In addition, historical accounts indicate that prison systems themselves frequently have condemned the use of supermax housing because of its perceived-to-be adverse effects on inmate mental health (Smith 2006, *passim*).

If we focus on systemwide order and safety as a goal, the logic of supermaxes rests on the assumption that a large amount of disorder and violence result from the actions of a small sub-set of the inmate population. This theoretical claim runs counter to the vast bulk of criminological theories on prison order. As Sparks et al. (1996:313) have emphasized: “What [special prison units] cannot do is magically to unlock the problem of order for a prison system as a whole.” For example, the administrative philosophies of prison systems may have a considerably larger aggregate effect on systemwide order than that of individual inmates (DiIulio 1987), and so, too, can the culture among administrators, wardens, officers, and inmates (Bottoms 1999). Prison officials can hope, of course, that supermaxes do constitute an effective silver bullet solution. As Rhodes (2004:36) has noted, “The dream of the perfect prison has deep historical roots.”

In the end, though, can we, on theoretical grounds, anticipate that supermaxes improve systemwide order and safety? Yes, but the assumptions for this effect are difficult to sustain. In addition, theoretical arguments can as credibly be made that they worsen outcomes, not only for inmates who experience supermax incarceration but also for the entire system. If we examine the theoretical logic for other outcomes, such as reduced riots, escapes, or recidivism, similar problems arise (see, generally, Briggs et al. 2001; Gendreau and Keyes 2001; Irwin 2005; Mears and Watson 2006; Shalev 2009; King and Resodihardjo 2010).

Implementation

Are supermaxes well-implemented? For example, are they operated in ways that accord with their design? Are the “correct” types of inmates placed in supermax housing? Are they provided

access to some programs or services? Are protocols followed for ensuring that the constitutional rights of supermax inmates are met and for releasing inmates from supermax housing? To date, few studies have directly addressed these or related questions (Mears 2008b). Indeed, not unlike many aspects of prison systems (Mears 2008a), supermaxes operate largely in the equivalent of a “black box” (Kurki and Morris 2001; Katel 2012; Mushlin 2012; see, however, Reiter 2012a; U.S. Government Accountability Office 2013). With that said, a number of concerns can be gleaned from prior research.

First, absent a clearly defined supermax “design”—one that precisely defines the goal of supermax housing in a particular system, who should be in supermax, how long an inmate should be in supermax, and so on—it is impossible to assess how well supermaxes are implemented. For example, perhaps fewer or more inmates warrant placement in supermaxes. Opponents may well feel that no one should be in supermax confinement, but proponents presumably would want information on how many inmates are not placed in supermax incarceration who should be. Such information does not at present exist or has not been made public by correctional systems. Some accounts have provided empirical descriptions of supermax inmates (see, e.g., Lovell et al., 2000; Cloyes et al., 2006; Mears and Bales 2010; Reiter 2012a). However, despite the frequent reference to the notion that supermaxes are supposed to house the “worst of the worst” inmates, it remains unclear what this expression means both conceptually and empirically (King 1999:164). It is unclear, by extension, what specific behaviors land inmates in supermax confinement. Here, the focus is not just on those behaviors listed in administrative codes or written policies but those that actually result in inmates being sent to supermax housing. Many accounts exist that document seemingly arbitrary application of policies to individual inmates (see, e.g., Morris and Kurki 2001; Rhodes 2004; Bauer 2012; Goode 2012; Cohen 2013).

Second, many different dimensions of supermax incarceration bear measurement and monitoring, yet remain largely unexamined. To illustrate, few studies exist that document how long inmates serve in supermax custody (U.S. Government Accountability Office 2013). Media accounts typically profile those inmates who serve many years in supermax housing (see, e.g.,

Goode 2012). It is, however, unclear how representative such inmates are, and even presenting averages can be misleading if a sufficient number of extreme cases exist. In Texas, for example, it was reported that the average duration of supermax confinement was 4 years, with the longest period of time served in such confinement being 24 years (Jennings 2009). By contrast, in Virginia, it was reported that inmates in supermax confinement averaged 2.7 years there, with some inmates serving up to 7 years (Kumar 2012). In a study of Florida supermax inmates, a colleague and I found the following: many inmates spent “only” a few months in supermax confinement while others spent years in it; over half were placed in supermax confinement three or more times; some spent less than 15 percent of their total term of incarceration in supermax confinement while 14 percent spent more than half of their total term of incarceration in such confinement; and 28 percent of supermax inmates were released from supermax housing within three months of release to society (Mears and Bales 2010). Perhaps Florida is an exception; perhaps it is typical. At present, nobody knows.

Duration of supermax housing constitutes, however, but one dimension for which information about implementation is needed. Other dimensions about which little is known empirically include the variation in discretion exercised by wardens in who is sent to supermaxes, training and experience of supermax officers, and the extent to which intermediate sanctions were used prior to using supermax housing. Little is known, too, about dimensions that have been expressly identified in various court decisions, such as provision of medical care, appropriate use of force, screening for mental illness, due process when admitting and releasing inmates from supermax housing, allowing access to the courts, and more (Collins 2004).

Third, many studies highlight that states house a seemingly non-trivial number of inmates in supermax housing who do not belong in them. For example, Haney (2003) and others (e.g., Riveland 1999b; Lovell et al. 2000; DeMaio 2001; Kurki and Morris 2001; Austin and McGinnis 2004; Rhodes 2004; Mears and Watson 2006; Sullivan 2006; Lovell 2008; Shalev 2009; Browne, Cambier, and Agha 2011; Brown, Agha, and Austin 2012) have highlighted that nuisance inmates and mentally ill inmates are found in supermax housing and do not in any obvious way

fit the profile of who, by design, should reside in such housing and who, under some court decisions, should not be allowed in it. Given the diversity of views that wardens have about who should be placed in supermax housing, such occurrences should not be surprising (Wells et al. 2002; Mears 2005; Mears and Castro 2006). Even so, it raises concerns about the appropriate use of supermaxes, recognizing here that to some opponents of supermaxes no use of supermax housing is appropriate.

Fourth, given concerns about differential treatment of minorities in the criminal justice system (Schlanger 2013), attendant concerns arise about the potential for supermax incarceration to be used disproportionately for minorities. The above-mentioned Florida study, for example, identified that blacks were more likely to be placed in supermaxes, though this difference appeared to be explained by greater involvement in misconduct (Mears and Bales 2010). In the latter instance, though, there is the question of whether racial or ethnic differences in misconduct stem from ways in which prisons are structured and operated. If, for example, prisons operate in ways that contribute to racial and ethnic differences in violence, then supermaxes then potentially serve to amplify such differences. Few studies have investigated these possibilities, though two recent accounts suggest that supermax incarceration is used more for minorities than for whites. Hispanic inmates have been reported to be overrepresented in supermax housing in California (Reiter 2012a; Janquart 2013) and in Arizona (Lowen and Isaacs 2012; J. Ross 2013). Schlanger (2013) has reported that black inmates constitute a disproportionate percentage of the New York supermax population and found that racial and ethnic overrepresentation in supermax facilities may exist in other states, including Arkansas, Colorado, and Connecticut. Whether such differences arise from differences in misconduct or how prison systems manage or treat minority inmates remains unknown (Mears and Bales 2010).

Ultimately, these and similar “black holes” in our understanding of supermax prisons raise fundamental concerns. They signal, for example, the risk that supermaxes are not implemented as designed and that abuses may exist. More generally, they indicate that any potential effectiveness of supermaxes may be undermined by poor implementation. Not least, without

information about these and other dimensions of implementation, it would be nearly impossible to identify how exactly any identified beneficial effect of supermax prisons arose.

Impacts

Despite the aggressive expansion in the use of supermaxes over the past three decades, there remain virtually no comprehensive assessments of their impacts along a range of dimensions (e.g., serious or minor misconduct among supermax inmates and non-supermax inmates, systemwide order and safety, escapes, riots, murders, programming). Indeed, almost no impact evaluations have been conducted, and those that have been undertaken examine a narrow range of relevant outcomes and have methodological shortcomings that limit their generalizability. Elsewhere, I have discussed several studies that examine different outcomes and issues (Mears 2008b) and so here highlight several of the more prominent considerations.

First, the wide range of goals associated with supermaxes means that any balanced assessment of impact should consider all of them (Mears and Castro 2006; Mears and Watson 2006; see, generally, Clare and Bottomley 2001; Shalev 2009; J. I. Ross 2013). For example, if the goals are to make entire prison systems safer and more orderly, as well as to reduce recidivism among the most difficult inmates, then these dimensions should be included in an impact assessment. No such studies exist to date.

Second, a credible assessment of impact requires an understanding of the counterfactual—that is, what would have happened had a given state not created and used supermax housing? The answer to that question appears to vary by state and, as discussed above, to be complicated. For example, in some cases, supermaxes were conceptualized as the equivalent of interventions (Mears and Watson 2006; see also King 1999). Here, the counterfactual is uncertain. Absent a supermax, would the state have done nothing? Enhanced officer training? Increased dispersion strategies? Built a maximum security facility? Invested in rehabilitative programming for violent prisoners? Each question creates a different point of reference for determining whether

supermaxes achieve their goals and for the types of research designs needed for answering them. Such contextual factors likely limit the external validity of state-specific studies of supermax prison impacts (see, generally, Mears 2008b; Mears et al. 2011; see also Sampson et al. 2013).

Third, an evaluation of supermax housing impacts cannot, for ethical reasons, rely on an experimental design. Accordingly, we will be unlikely to ever have scientific “evidence” of impacts if the standard is the use of experiments. If, however, other definitions of “evidence” are used, then, as discussed below, we may be able to accumulate evidence about supermax impacts.

Fourth, a quasi-experimental approach may be feasible in some instances, though has not been employed except in a small handful of cases (U.S. Government Accountability Office 2013). For example, Briggs et al. (2009) compared inmate assaults before and after supermaxes were opened in several states (Arizona, Illinois, and Minnesota) and used Utah, which did not open a supermax, as a point of comparison; the study found little evidence of supermax effects on systemwide assaults. Using quasi-experimental designs, Lovell et al. (2007) and Mears and Bales (2009) examined supermax inmate recidivism and identified small increases in post-release offending. No studies to date employ strong research designs for examining the effects of supermax housing on inmate misconduct during and after release from such housing (see, however, Ward and Werlich 2003). Qualitative accounts exist as well and shed some light on possible impacts of supermax incarceration (see, e.g., Bidna 1975; Crouch and Marquart 1989; Rhodes 2004), yet do not employ the types of evaluation designs that would allow for greater confidence in causal claims about the effects of supermaxes on beneficial outcomes (e.g., reduced violence) or adverse outcomes (e.g., increased violence, mental illness, or suicide). Systematic assessment of a wider range of outcomes, using a wider range of measures, remains to be undertaken. A central challenge for any credible impact evaluation, especially one focused on systems-level effects, is that of taking into account the many other changes that typically occur when supermaxes are opened that may account for any observed changes in order or safety.

Fifth, an increasingly large literature highlights the importance of identifying and quantifying

the potential harms, noted above, that may arise from supermaxes (see, generally, Mears 2005; Mears and Watson 2006). These harms may occur among all inmates in supermaxes or some groups of them, such as the young (Human Rights Watch 2012), or among officers (Mears and Watson 2006; Shalev 2009) or inmates' families or in the prison system as a whole (Briggs et al. 2003). For example, any benefits of supermax incarceration may be offset, if only partially, by any effect that it has in causing or aggravating mental illness among supermax inmates. Indeed, a large literature—including research studies and inmate and warden accounts—argues that extended isolation causes serious mental illness and is psychologically debilitating in ways that endure long after inmates are released (e.g., Haney 2003; Cloyes et al. 2006; Kupers 2008; Lovell 2008; Shalev 2009; Lowen and Isaacs 2012; Tietz 2012; J. I. Ross 2013; cf. Bulman et al. 2012; O'Keefe et al. 2013). In a related vein, it is conceivable, too, that the use of supermax prisons may worsen the behavior of inmates placed in them and of general population inmates (Briggs et al. 2003; Lovell and Johnson 2004; Mears and Reisig 2006). That possibility has been raised not only by opponents of supermax prisons but also by prison officials and wardens who have direct experience with supermaxes (see, e.g., Mears 2005; Goode 2012).

Cost-Efficiency

Is supermax housing cost-efficient? No one knows. The costs alone may vary from state to state or even within a state. In some cases, states retrofit a wing of an existing facility, which entails different costs than building a brand new facility to house only supermax inmates. Estimates typically suggest that the costs to build supermaxes are substantially greater than those to build other types of facilities because of the greater investment in technology and single-cell housing. Operational costs tend to be substantially greater because, in contrast to traditional prison facilities, inmates do none of the work; all services, treatment, food delivery, and the like must be undertaken by officers. In a study that a colleague and I conducted, we heard estimates from corrections officials that indicated that supermax housing typically was 2 to 3 times greater

to build and operate than would be the case with traditional maximum or medium security facilities (Mears and Watson 2006). News accounts and some scholarly accounts tend to echo this estimate, but a systematic cost assessment, along the lines of what would be ideal (see, e.g., Gaes et al. 2004; Lawrence and Mears 2004), remains to be undertaken. Without credible estimates of costs, it is impossible to obtain valid estimates of cost-efficiency. It also is impossible to obtain them without valid estimates of positive and negative impacts.

Uncertainty about impacts of supermax housing are critically relevant for generating accurate cost-benefit estimates. And so, here, again, we encounter the question of what counterfactual to use (Lawrence and Mears 2004). For example, a state may build a supermax facility and the counterfactual may be that the state would have invested in a maximum security prison. In this case, the cost-efficiency estimate should center around the estimated impact of the supermax, as compared to use of a maximum security prison, and the estimated costs of the supermax housing and the maximum security prison, respectively. If, however, the state would have invested in officer training or strategic dispersion of inmates throughout the prison system, then the estimated supermax impacts are relative to these comparisons and to the costs associated with each them.

Other challenges, too, exist in arriving at credible estimates of cost-efficiency. For example, estimated impacts of supermaxes should consider all relevant outcomes, including potential harms. We have abundant evidence that supermaxes may have a wide range of effects, including potentially increasing the risk of suicide (Smith 2006:499), and so this step is essential. In addition, there is the importance and difficulty of monetizing the diverse outcomes (e.g., increased or decreased assaults, murders, mental illness, rule compliance, recidivism). Not least, given the wide range of differences in how supermaxes are designed and operated and, again, the purposes for which they were built, any one cost-efficiency evaluation likely would not generalize to other states (King 1999; Lawrence and Mears 2004; Mears 2008b; Browne, Cambier, and Agha 2011; Jacobson 2012). Accordingly, until a body of studies emerges that arrive at credible estimates of impact and involve comparisons to similar counterfactual

scenarios, and until such work emerges that also involves credible efforts to monetize various impacts, it will not be possible to estimate the cost-efficiency of supermaxes.

3. CAUSATION AND ASSESSING EFFECTIVENESS

Causation, the focus of this special issue, is a complicated topic (see, generally, Marini and Singer 1988). From a policy perspective, the “simple” approach to the topic entails using some number of experimental designs as evidence that a given program, policy, intervention, or the like can produce a beneficial outcome. As Sampson et al. (2013) have highlighted, even this approach is not so simple. The results of a given experiment, for example, may not generalize to other contexts or populations, and in many instances, such as various state laws or Supreme Court decisions, experiments that have real-world relevance can not be undertaken (Heckman and Smith 1995; Sherman 2003; Rossi et al. 2004; Mears 2010; Mears et al. 2011). Such issues aside, discussions about “evidence-based” policy frequently treat experimental or quasi-experimental assessments of impact as the primary foundation on which to justify policy and where, by extension, causal questions are most relevant (Welsh et al. 2013).

Here, I briefly revisit the above five dimensions—need, theory, implementation, impact, and cost-efficiency—and highlight how causation is relevant to each and why discussions about policy effectiveness should focus on each. In so doing, the observations take heed of Sampson et al.’s (2013) argument that “descriptive data, non-causal analysis, and criminological theory remain essential to improving the link from causal claims (even if unassailable) to policy.”

Need

An assessment of need ideally not only documents the problem that should be addressed but also identifies the policy that can best address it. Policies often are put forward as solutions to vaguely specified problems (Rossi et al. 2004). In such cases, greater clarity about the problem

can help. Clarity about why a particular policy or intervention would be effective can be helpful as well. To arrive at such clarity, it helps to know what caused the problem, whether it is feasible to target those causes, and whether doing so would likely produce, or cause, desired outcomes. Here, then, we arrive squarely at questions of causality, ones that typically may not be readily answered through experiments or even quasi-experimental designs. If we consider prison systems, for example, what exactly produces order and safety? What role do certain subsets of inmates have in producing disorder and violence? What factors moderate the effects that such inmates have? What mechanisms could be leveraged to affect these inmates or moderating factors? These constitute questions of direct relevance to establishing the need for a given policy and they necessarily give rise to a host of questions about causal relationships and what solutions to a given problem would be most indicated or effective.

Theory

Social policies—including, again, programs, interventions, rules, protocols, and the like—typically entail relatively complicated combinations of services, treatments, dosages, and more, and these unfold over time. Assessing the likelihood that a given policy design will contribute to a desired outcome is therefore challenging and, as emphasized above, it may not be possible to employ rigorous research methodologies to evaluate policy impact. Even so, the many assumptions that undergird a policy can be subjected to evaluation (Rossi et al. 2004; Mears 2010; Silver 2012). If no existing theories—ideally ones that have been well-tested—can be identified to support some, many, or even all of the claims on which a policy is built, then as a logical matter, we have grounds to question whether the policy can or will be effective. Similarly, if empirical research casts doubt on key claims that undergird the policy, we again should have doubts about whether causal claims about the policy are accurate.

When we turn to supermax prisons, for example, questions about whether they can or do achieve desired outcomes arise. The theory underlying them is frequently unspecified by states,

the application of theories to their operations suggests that they may create as much harm as benefit, and the empirical claims on which they rest are generally untested or implausible (see, e.g., Mears and Watson 2006; Mears and Reisig 2006; Pizarro et al. 2006; King 2007; J. I. Ross 2013). For example, one assumption is that supermax inmates will be deterred into conforming behavior, yet such inmates have not, on the face of it, been deterred by any other approach and some studies suggest that, in some instances, inmates may want to be placed in supermax housing, whether for protection or as a symbol of toughness (Mears and Watson 2006). Such assessments do not mean that supermaxes do not or can not create the outcomes for which they were intended, but they do raise red flags about the likelihood of such occurring.

Implementation

The quality of policy implementation is central to assessing causal effects (Rossi et al. 2004). For example, an impact evaluation might identify positive effects of a program, and in this case we might reasonably conclude that the program caused the effects. Yet, programs frequently are not implemented as designed. In such cases, we should question whether an identified impact results from a program or from some other factor. Process, or implementation, evaluations can assess the quality of policy implementation and, in turn, support causal claims arising from impact evaluations. With complicated policies or programs, they also can be used to help identify what parts of the policies or programs may be most responsible for producing particular outcomes. Consider drug courts—positive impacts may arise from treatment, closer supervision, more frequent court contact, or some combination of these factors (Mears 2010). An implementation evaluation can be used to assess the degree and quality of the activities in a given drug court and so provide some foothold for determining whether one activity may be more important than another. For example, perhaps the implementation evaluation identifies that treatment services in fact were minimal and yet a large program effect emerged. Here, one then has grounds to question the causal claim that treatment produced the effects.

In the end, no amount of research concerning the causal effect of a given policy can assure that the policy will be implemented in a high-quality manner in a given context. Implementation evaluations thus are essential to increasing the likelihood that the expected benefits of a given policy, when adopted in a different setting, occur. For example, extant studies suggest that states not infrequently place the “wrong” types of inmates, such as those who engage in nuisance infractions, in supermax housing (National Institute of Corrections 1997; Lovell et al. 2000; Haney 2003; Mears 2008b; Browne, Cambier, and Agha 2011; Brown, Agha, and Austin 2012). More broadly, studies and media accounts indicate that the disjuncture between ideal and actual practice in supermaxes can be considerable (Bauer 2012; Mears and Watson 2006; Filho 2013). In such instances, not only do inmates not receive the intervention that was intended, but also they potentially are abused or perceive their treatment as unfair, which can result in worse rather than better outcomes (Carlton 2007; Mears 2008b; Shalev 2009). Here, again, causation is implicated—failure to implement a policy in the manner in which it was designed should, as a logical matter, reduce the likelihood of achieving intended outcomes.

Impacts

As noted above, few studies have examined the effects of supermax prisons on intended goals. The challenges involved in assessing their effects include the fact that many different goals must be considered (and the goals may vary by state), the counterfactual condition frequently is not clear or obvious, experiments are not possible or feasible, and data for quantifying outcomes, intended and unintended, typically are not available. Here, supermaxes are illustrative of causal analysis challenges for many other criminal justice policies. For example, if experimental designs are the standard, we will not accumulate evidence about the causal impact of supermax prisons and thus “evidence” of their effectiveness. The same holds true for many large-scale policy efforts, such as sentencing laws, community policing, or the like (Mears 2010; Sampson et al. 2013). Fortunately, many different types of quasi-experimental

approaches can be undertaken that, under certain conditions, can provide highly credible estimates of policy impact (Heckman and Smith 1995; Welsh et al. 2013).

Even if experiments were possible with supermax housing, the resulting evidence would not magically lead to an understanding of how supermax housing causes certain outcomes. The same is true of many quasi-experimental designs that one might undertake in assessing supermaxes. For example, if an experiment found that placement in supermax housing reduced misconduct among those placed in it, there would remain the question of how the effect was achieved. It might arise from specific deterrence borne of mental suffering or fear of further social isolation, reduced exposure to criminogenic peer networks, or a moral awakening in line with what the Quakers anticipated would happen to inmates at the Walnut Street jail, or other such possibilities (Mears and Watson 2006). The causal mechanisms matter because they provide a foundation on which to target changes that might increase beneficial outcomes. For example, supermaxes might increase systemwide prison order by creating a general deterrent effect among general population inmates, but this effect might be offset by perceptions among such inmates that supermaxes are used inappropriately. In such a context, greater effects might be generated by operating supermaxes appropriately. The relevance here simply is that experimental and quasi-experimental research designs provide only one basis for establishing the causal relationship between a policy and intended impacts and for guiding policy modifications aimed at increasing these impacts and limiting unintended harms.

Cost-Efficiency

Causation is important for understanding whether a given policy or intervention can produce a particular outcome, but in and of itself does not constitute “evidence” that it is needed or implemented well, or that it could be implemented well. In addition, it does not provide evidence about whether the given policy or intervention produces the most impact for the least cost. For that, we need causal analyses of other approaches to addressing the identified problem.

It may be, for example, that improved professionalism among administrators and staff might produce larger effects on systemwide order and violence than would supermax prisons, and do so at far lower cost. A focus on cost-efficiency allows us to select among interventions that are evidence-based with respect both to research on causation and to research on the financial and human costs associated with them.

Cost-efficiency studies speak in part to causal claims in another way. Specifically, they encourage us to be clear about a range of assumptions and uncertainties that underlie claims about impacts and benefits. Outcomes that cannot be quantified or monetized are so noted. Estimated benefit-cost ratios that are highly vulnerable to assumed or estimated impacts can be highlighted, too. In this way, one can highlight the vulnerability or resilience of a given estimate to the uncertainty of different assumptions, including assumed impacts for a group or area. In this way, the benefits of cost-efficiency evaluations are similar to what Sampson et al. (2013) have described for directed acyclic graphs (DAGs) and what Rossi et al. (2004) have described for theory evaluations. In each instance, a larger context is provided by which to situate specific assumptions and claims. In the best-case scenario, estimated benefits are large and impervious to a range of assumptions and claims; in the worst-case scenario, small changes in assumptions can dramatically change estimates (see, generally, Silver 2012; Taleb 2012).

4. LEGAL AND ETHICAL ISSUES

Evidence-based policy ideally includes the selection of interventions where research has documented a causal relationship. Such studies may include experiments or other types of research, such as needs and theory evaluations. Regardless, research on causal impacts cannot directly resolve legal and ethical issues that arise with many criminal justice policies. That insight is not novel but nonetheless too-often is omitted from discussions about what it means to have an “evidence-based” intervention. Presumably, we want policies that not only address critical needs, build on credible theory, are implemented well, achieve intended impacts, and do

so at minimal cost, but that also pass legal and ethical muster.

If we turn our attention to supermaxes, many legal and ethical considerations arise. No single one necessarily indicates that we should or should not use supermax housing. Collectively, though, they raise questions about whether, or when, such housing is warranted. For example, the constitutionality of supermaxes have been repeatedly litigated; the main arguments have been that they are cruel and unusual punishment and so violate the Eighth Amendment and that they violate due process rights in violation of the Fourteenth Amendment (Reiter 2012b). The courts typically have upheld the constitutionality of supermax housing, but their decisions have identified problems. As Collins' (2004) review of this issue identified, existing case law and litigation point to many "constitutional violations and operational problems" (p. xvi), "suggest that mental health issues will pose the greatest legal challenges" to supermax-like housing (p. xvi), and highlight continued uncertainty about whether such housing "imposes an atypical deprivation on an inmate and therefore requires due process protections" (p. xviii). In addition, "services that are especially critical from a legal perspective—e.g., health care and access to the courts—are difficult to deliver in [extended security units], and use of force is an ever-present issue" (p. xx).

From an ethical perspective, related questions exist. There are, for example, concerns expressed by scholars and advocacy groups about reliance on a type of incarceration that some allege is inhumane and violates human rights (Kurki and Morris 2001; Rhodes 2004; Shalev 2009; Browne, Cambier, and Agha 2011; Bauer 2012; Katel 2012; Lowen and Isaacs 2012; Tietz 2012; Cohen 2013; Durbin 2013; Jeffreys 2013). Some evidence that supermax housing may be used more for minorities than for whites (Mears and Bales 2010; Schlanger 2013). Research suggests that it may induce mental illness or aggravate existing mental health problems (Haney 2003; Rhodes 2004; Shalev 2009) and that these effects may be greater among the youngest inmates (Human Rights Watch 2012). It also may cause a range of other harms, including worsening systemwide order and safety (Mears and Watson 2006). Reliance on supermax incarceration may reduce or preclude investment of scarce resources in a range of other

approaches that might more effectively achieve the same goals at less cost (Bottoms 1999; Mears and Reisig 2006). And these and related problems or harms all arise in a context in which little oversight or documentation exist about what happens inside supermax facilities (Mears 2008a-b; Mushlin 2012).

How exactly each of these possibilities should be weighed and balanced remains unclear. And it is unclear, as well, how causal analyses of supermax impacts would address them. They can, of course, identify whether specific outcomes are achieved. But they cannot resolve debates or concerns about, say, racial disparities in the use of supermaxes. By contrast, empirical research more broadly—including descriptive accounts of the types of inmates housed in supermax facilities, the duration of supermax incarceration, adherence to protocol, etc.—can be used to inform discussions about the above types of concerns.

5. POLICY AND POLITICAL CHALLENGES

Evidence-based policy arguably should include consideration of contextual factors, such as the extent of public support, available policy options, and political dynamics. Consideration of such factors does not constitute a substitute for relying on research that documents policy need, impact, or cost-efficiency. Yet, these factors undoubtedly provide a central platform for why certain policies, including supermax prisons, are pursued. For that reason, they should, on the face of it, feature in discussions about the “evidence” base for any given policy. This idea is illustrated here through reference to supermax prisons.

First, policymakers freely reference the “public will” when advocating for particular interventions or approaches (Burstein 2003, 2008), including supermaxes, and so it would make sense to consider the extent of public support for supermax housing. Notably, however, only one study has examined public views about supermax housing even though it is second only to the death penalty in severity. The study found that over 80 percent of Florida citizens supported the use of supermax prisons but that this support dropped to 60 percent if no public safety benefit

was anticipated (Mears et al. 2013). It also found that 70 percent of Floridians disagreed that supermaxes are inhumane. The study is notable primarily for highlighting how variable public support can be depending on the characterization of the policy option. In these case, support dropped 20 percentage points if respondents were asked about a situation wherein supermax prisons had no effect on public safety, a percentage drop similar to what holds in studies of support for the death penalty when respondents are given a scenario in which life without parole is an option (Cullen et al. 2000). Ultimately, public opinion should not likely constitute the sole basis for public policy. At the same time, it is referenced by policymakers when they advocate for particular policy positions. Accordingly, accurate information about public views toward policies is critical for informing discussions about the need and support for a given policy.

Second, some of the motivation for creating supermax housing stems from the belief that it is a necessary last-resort option when all else has failed. As discussed above, making sense of any such claim requires clarity about what problems supermaxes are supposed to solve. If, however, we take as our point of departure the idea that a select set of inmates directly or indirectly contributed disproportionately to prison disorder and violence, a question arises: For any given state that has a supermax, were in fact a range of alternative options attempted prior to turning to supermaxes as a solution? There is little empirical evidence that states systematically pursued any of a wide range of alternatives to supermaxes. Empirical evidence that such avenues were exhaustively pursued would help bolster claims that a last-resort option of some sort was needed.

Third, political considerations appear to be part of the explanation for why supermaxes have been adopted and so would seem to be important to include in an assessment of why they may be needed or appropriate (Sundt et al. 2008). Mears and Watson (2006), for example, found that corrections officials in one state advocated for a new maximum-security prison and were told by legislators that a supermax was a better idea even though the officials did not feel that one was needed. The legislators wanted an approach that would symbolize their tough-on-crime stance. Briggs et al. (2003:1342) have argued that a related motivation has driven some states to invest in supermaxes: “For many within the prisons industry, the establishment of the supermax is

viewed as the sine qua non of a progressive prison regime that is concerned with the safety needs of its inmates and staff.” Being tough on crime or seeking to appear progressive may be important political goals, but they do not reflect a concern with adopting policies that are, on some objective, empirical basis, needed (King 1999; Mears 2008b; Browne, Cambier, and Agha 2011; Browne, Agha, and Austin 2012).

The “political” dimension of supermax prisons does not necessarily reflect “conservative” vs. “liberal” divides. For example, policymakers of either persuasion can and do advocate for prison construction in their home districts (Mears and Watson 2006). Community leaders and labor unions may weigh in on such decisions as well. In 2012, for example, debate arose in Illinois over the Governor’s proposal to close the Tamms supermax facility. The sustained downturn in the economy and resulting adverse effects on the state budget, more so than evidence of a need for a supermax, appeared to be central to the debate. For a similar reason, many states, including Colorado, Illinois, Kansas, Maine, Maryland, Mississippi, New Mexico, Ohio, Texas, and Washington State, have begun to rethink their use of supermax housing (Kupers et al. 2009; Browne, Agha, and Austin 2012; Chammah 2012; Goode 2012; Katel 2012; Garcia and Guerrero 2013; U.S. Government Accountability Office 2013). Whether closing facilities makes sense, however, depends on what the levels of need and impact are, and what benefit they provide as against their costs.

Juxtaposed against these considerations—public views, available policy options, political dynamics—is the fact that states operate with limited funding and have prison systems that confront numerous challenges and problems. Accordingly, the stakes are high. In such a context, enacting policies that may not be needed, designed well, or implemented appropriately, or that achieve intended effects at levels sufficient to offset their costs is problematic. Empirical research on these dimensions thus is critical. The argument here, though, is that an understanding of political context and dynamics arguably should constitute an additional part of a comprehensive approach to describing the “evidence” for a policy.

6. POLICY OPTIONS

Evidence for a particular policy—such as a series of experiments that show that the policy produces a given level of impact—does not constitute evidence about whether that policy is needed, possible to implement, or the most cost-efficient investment in a given context. As noted above, proponents of supermax housing have argued that such housing constitutes a “last resort” option, implying that other options were exhausted and failed to work. Setting aside the lack of empirical evidence that such options indeed were tried or that they failed, there is the question of whether effective alternatives to supermax prisons exist.

Answering the question is difficult without knowing the precise problem a given state wanted addressed and, by extension, what exactly is meant by “effective.” Here, let us assume that two problems exist: (1) an increase in systemwide prison disorder and violence and (2) an increase in the number of extremely difficult or violent inmates. Our goals here might be to return to previous levels of disorder and violence and to provide the level of control over the difficult and violent inmates that is typical, as defined by past practice in a given prison system. What approaches might we consider at the outset before investing in supermaxes? One is to examine the many potential factors that contribute to the systemwide disorder and violence. Perhaps greater disorder and violence is occurring at facilities that have hired relatively “green” wardens or officers. If so, then we might want to target our energy in that direction. Perhaps it turns out that a small number of inmates, spread throughout the prison system, are simultaneously causing disorder and violence to escalate. If so, we might target our energy there instead. Here, of course, there remains the question of what to do.

What possibilities exist for reducing inmate disorder and violence? At the most general level, one possibility is to improve administrative practice through organizational efficiency and greater professionalism (DiIulio 1987; Sparks et al. 1996; Reisig 1998; Mears 2008a). Another is to create an administrative and front-line staff culture that leads inmates to perceive prison authority as legitimate; consistent, fair, and reasonable implementation of rules is one way to

achieve this perception (Bottoms 1999). A range of programming measures might be effective as well, including drug and mental health treatment, educational and vocational programs, and, in particular, behavioral programs (Gendreau and Keyes 2001; French and Gendreau 1996; Mears and Watson 2006). There is also the practice, widely used prior to the 1980s, of strategically dispersing certain disruptive or violent inmates throughout the prison system (Riveland 1999b; Briggs et al. 2003).

These ideas do not derive only from research; rather, they also come from practitioners (Mears 2005). For example, in a national survey of prisons, wardens were asked to identify effective alternatives to supermaxes (Mears and Castro 2006). Eighty-eight percent said that at least one such alternative—from a list of possibilities—existed and 76 percent said that at least two did. Half or more of the wardens identified a range of approaches as effective alternatives, including staff training, provision of some type of rehabilitative programming, and using specialized housing other than supermaxes. Many wardens viewed still other approaches as effective alternatives to supermaxes. These included strict enforcement of rules, relying on incentives-based strategies for gaining inmate compliance, and using maximum security prisons.

There are, in short, a wide range of possible approaches to preventing and reducing disorder and violence in prisons. Indeed, the range suggests that no one approach likely would be sufficient alone and that, rather, the most effective strategy would be to pursue several at once. Have states systematically exhausted the above approaches, or others? That remains unknown. All that we do know is that states invested substantially in what, on the face of it, amounts to a silver bullet solution to many different problems that themselves have a variety of causes.

7. RESEARCH GAPS

Unanswered questions always exist about any given policy, and that is certainly true of supermax prisons and, more broadly, of extended isolation, including housing used for protective custody and punitive segregation (Shalev 2009). Indeed, scholarly accounts have enumerated a

lity of them (e.g., King 1999, 2005; Clare and Bottomley 2001; Kurki and Morris 2001; Mears and Watson 2006; Mears 2008b; Naday et al. 2008; Shalev 2009; J. I. Ross 2013). At the broadest level, we lack information along the five evaluation dimensions discussed above: need, theory, implementation, impact across a range of outcomes, and cost-efficiency. Until these gaps are addressed, it will be difficult to justify opening, continuing, or closing supermax prisons on evidence-based grounds.

A central barrier to creating research that addresses these different dimensions is the lack of research infrastructure in state correctional systems. Research staff typically have too many competing demands on their time, and databases can be unwieldy to use. Even so, many examples of productive research efforts exist that attempt to creatively exploit available data to address key research questions. For example, groundwork for examining supermax implementation questions has been laid by the Vera Institute's Segregation Reduction Project (SRP, <http://www.vera.org/project/segregation-reduction-project>; see also Lovell et al. 2000; Clare and Bottomley 2001; Ward and Werlich 2003; Lovell 2008; Mears and Bales 2010; Browne, Cambier, and Agha 2011; Browne, Agha, and Austin 2012). This work identifies some of the ways that states can better describe their supermax inmate population, including how appropriate the fit is between the types of inmates placed in supermax housing and who is "ideally" supposed to be placed in it, how long inmates serve in supermax confinement, and what their behavior is like after confinement in supermax housing. This work can help to document appropriate implementation but it also can be used to assess the effects of supermax housing on misconduct and recidivism and on general population facilities (see, e.g., Briggs et al. 2003; Lovell et al. 2007; Mears and Bales 2009).

Stronger research infrastructure also can create the groundwork for quasi-experimental evaluations of supermax prison impacts (Mears 2008a). For example, some wardens may be more aggressive than others in sending inmates to supermaxes (Mears and Castro 2006). One could compare facility-level rates of infractions at these wardens' facilities to those at comparable facilities. The critical but tractable challenge would be to identify similar facilities

that house similar inmates. Other types of studies can be undertaken as well, including those that employ matching designs and that investigate the effects of varying lengths of time served, or number of placements, in supermax confinement (Lovell et al. 2007; Mears and Bales 2009).

8. SAMPSON ET AL. (2013) AND CAUSAL UNCERTAINTY

Sampson et al. (2013) have identified three challenges related to efforts to improve policymaking despite causal uncertainty: (1) effect heterogeneity, which makes it difficult to arrive at generalizable causal claims, (2) ambiguity regarding the causal mechanisms or pathways that contribute to improved outcomes, and (3) contextual factors that may condition whether a policy effect occurs or the magnitude of the effect. What are the implications of these challenges for understanding supermax housing and its impacts?

First, the emphasis on effect heterogeneity, at a general level, underscores the need to think carefully about how a policy creates an impact and, in turn, why it may have different effects for different groups of individuals or areas. As the discussion above highlights, the theory underlying supermax prisons is poorly articulated, inconsistent, and largely untested. Even so, the very conditions of supermax housing—extended isolation, in particular—suggest that we might well anticipate different effects for different groups. Indeed, a large literature on the potentially adverse effects of such housing on mentally ill inmates reinforces this idea.

That, though, only scratches the surface. What about inmates who experience imprisonment for the first time and who, within weeks of incarceration, are placed in such housing? Other inmates, especially those with a history of incarceration, may have familiarity—whether through first-hand knowledge or through exposure to inmates who have been in supermax confinement—with what extended isolation is like. That, in turn, may help them to cope with such confinement. Similarly, what about inmates with minimal reading ability or low self-control? For such inmates, supermax housing may constitute an especially frustrating experience, which may result in more misconduct and potentially recidivism (Mears and Bales 2009). What about

inmates placed in supermax housing repeatedly, for longer periods of time, or just prior to release back into society (Mears and Bales 2010)? In each instance, we might well anticipate that supermax effects on behavior would vary. Similarly, at the systems level, supermax housing may produce different effects depending on staffing levels throughout the prison system or inmates' perceptions of the legitimacy of prison officials and officers.

The very act of focusing on the idea of effect heterogeneity highlights these and many other possibilities. In so doing, it contributes to greater conceptual clarity about policies, including supermax prisons, how exactly they might be effective, and how their effectiveness might vary for certain groups, across different conditions, or in certain contexts. Sampson et al. (2013) have highlighted how statistical approaches to causal modeling allow for investigation of effect heterogeneity. These show promise for providing more robust and accurate estimates of causal effects. Yet, the more fundamental insight they have offered is that causal uncertainty can be reduced in part by systematically conceptualizing the precise nature of a given policy and, in turn, how and why its effects might vary. Given such conceptualization, it then becomes possible to contemplate suitable research designs and to apply methodologies appropriate to the specific research question at hand. From the discussion above, it is evident that many different effects of supermax housing can be anticipated and that a wide range of different research studies are needed to identify the diverse effects, intended and unintended and beneficial or harmful, that supermaxes may have. Until such work is undertaken, the effects of supermax prisons—in general, for specific groups or prison systems, or under varying contexts—will remain unknown.

Second, in advocating the use of Directed Acyclic Graphs to assist with identifying causal pathways and factors, Sampson et al. (2013) have echoed the call of researchers to develop causal logic models when evaluating programs or policies (Rossi et al. 2004). The benefits are considerable, and include, not least, the ability to zero in on important policy considerations. For example, in mapping out different ways in which supermax housing might improve systemwide prison order, we can see that many causal mechanisms exist (Mears and Reisig 2006). Such housing might provide a specific deterrent effect for those placed in the housing or it might

provide a general deterrent effect for general population inmates. It also might “normalize” the prison environment by freeing up officers in general population facilities to monitor inmates better. Each causal pathway ideally should be examined. By doing so, policymakers might be able to target the use of supermax housing in a more effective manner. For example, if supermax housing does contribute to systemwide order and if the effect arises primarily through general deterrence, prison officials might want to employ such housing more frequently but perhaps for less serious violations and for shorter durations. By so doing, there would be the potential for increasing general deterrence among general population inmates.

A recurring theme throughout this essay has been a focus on the lack of clarity about the theoretical mechanisms through which supermax housing might contribute to any of a range of outcomes (e.g., supermax inmate misconduct, general population inmate misconduct, escapes, systemwide prison order, recidivism) (Mears and Watson 2006). From a causal claims perspective, then, the situation is far from ideal—few credible empirical studies on the impacts of supermax prisons exist and the theoretical or causal logic is poorly developed. By embracing Sampson et al.’s (2013) call for carefully delineating and testing different causal mechanisms, there is a greater possibility at arriving at more definitive claims concerning policy and program impacts and how intended effects might be increased and unintended harms decreased.

Third, Sampson et al. (2013) have argued that causal claims can be difficult to obtain in part because context may matter (see also Welsh et al. 2013). That is, contextual factors may influence the outcomes that arise in one setting versus another. In a similar vein, it may be that a policy can only be implemented in a certain way, or with a certain population, in a given setting, and this difference in turn may affect the policy’s impact. Bardach (2004) has referred to this issue as an extrapolation problem, one that is captured in part by the distinction between efficacy studies (i.e., research on impacts of programs under laboratory-like settings) and effectiveness studies (i.e., research on impacts of programs as applied in real-world settings) (Mears 2010). In short, what parts of a program or policy can be carried over to a new setting and be expected to produce similar effects to those identified in other settings? And what parts must be adapted, in

what ways, to achieve such effects? Context matters for these reasons and still another. As Sampson et al. (2013) have emphasized, a policy may produce an outcome but also result in unintended effects that ripple throughout a given system and in turn create more harm than good.

Such insights are relevant for developing a better understanding of the impacts of supermax housing. Some states may have more capacity to house inmates in supermax housing for longer periods of time, which might affect intended outcomes. Some state prison systems may be managed less professionally than others and they may engender greater ill will among inmates. In such contexts, inmates may be more likely to view the use of supermax housing as abusive and an unfair demonstration of authority. Accordingly, in such contexts it may be that supermax housing might produce a specific deterrent effect for inmates placed in supermax housing, but this benefit might be offset by an increase in misconduct among general population inmates. As discussed above, it remains unknown what impacts supermax housing has on any of a range of outcomes. By extension, at present we have little basis for knowing what aspects of supermax housing can be adopted in various settings and still achieve a given type and magnitude of effect while avoiding unintended effects on other aspects of prison operations.

9. POLICY IMPLICATIONS AND RECOMMENDATIONS

One reason for examining supermax housing—and solitary confinement more broadly—is that it fits broadly within the paradigm of the last 30 years, one that has emphasized “get tough” approaches to crime prevention and, at the same time, government accountability, evidence-based practice, and cost-efficiency. As this essay has highlighted, substantial concerns exist about how well supermaxes and other types of extended isolation (e.g., protective custody and punitive segregation)—and many criminal justice policies—fare when held to these standards. One implication, then, is that there should be a better alignment between theory and practice.

How do we improve this alignment? Many possibilities exist and have been enumerated at length over recent decades (see, e.g., Petersilia 1991; Sherman 2004; Cullen 2005; Mears 2010;

Sampson et al. 2013). Improved funding and research infrastructure are critical (Mears 2008a). Resources alone cannot in and of themselves result in studies that systematically address critical policy questions, but they are essential for such efforts. Stronger ties between universities, research organizations, and criminal justice agencies is essential, especially for investigating the more complicated types of questions that require understanding the intricacies of large-scale database systems. Requiring states to undertake needs evaluations and break-even “sensitivity” analyses of high-cost policies, too, would help considerably. Here, again, supermax housing is instructive. In the end, it may well create improvements, but its costs alone raise the bar substantially for the magnitude of benefit required simply to “break even” (Lawrence and Mears 2004). In some cases, sensitivity analyses can alert us to the possibility that unrealistically large benefits must be assumed to produce benefits that offset policy costs. These and related steps could help improve the evidence base for criminal justice policies (Mears 2010). At the same time, they provide the foundation for more and better assessments of the causal relationships that advocates hope underlie these policies.

For the time being, states that have supermax housing and other types of extended isolation or solitary confinement face a quandary. Should they keep, expand, or eliminate it? For those who view such confinement as fundamentally inhumane, the only option is to stop employing it. That argument is bolstered in part by some research on supermax incarceration, but rests ultimately on differences of opinion among various policymakers and members of the public. Even so, it seems difficult to contest that extended solitary confinement constitutes the most extreme form of deprivation currently in use in America and in many other countries. A large body of scholarship, however weak many of the methodological studies may be, attests to the potential for supermax incarceration to create potential harms to inmates and to prison systems as a whole. Trenchant critiques and strongly worded international condemnation of supermaxes also supports the view that extended isolation can reasonably be viewed as inhumane. To the extent that such an assessment holds true, the implication is clear—either eliminate supermax incarceration or raise the bar for the conditions under which it can be used. In legal terms, that

would mean subjecting any use of extended isolation to strict scrutiny, requiring strong empirical evidence of a compelling state objective, and ensuring that inmate stays in such isolation occur only for as long as is needed to achieve that objective.

Not everyone agrees with the above assessment. Indeed, robust defenses of supermax incarceration abound. In my view, empirical research can provide one critical platform for resolving debates. Here, I see no substitute for the systematic application of the evaluation hierarchy to supermaxes and the types of careful development of causal logic and of causal analysis advocated by Sampson et al. (2013). Doing so will not fully solve philosophical or political differences of opinion, but it can contribute to efforts to place policy debates on a more solid, evidence-based foundation. In short, assess the need for current or proposed supermax housing and other forms of solitary confinement; such an assessment requires clarifying the goals of such housing and how each goal should be weighted. Develop the theoretical or causal logic through which supermax housing contributes to specific outcomes, and identify the conditions under which such outcomes might reasonably be anticipated. Ensure that implementation is sound—that is, take steps to document that inmates in supermax housing reflect the profile of who should be in such housing. Conduct impact evaluations that examine the different outcomes that supermaxes are designed to achieve. Not least, conduct cost-efficiency studies that determine whether impacts, or anticipated impacts, offset estimated costs.

What policy guidance might be offered given the state of research on supermax housing? At present, there remains virtually no research that identifies effective “doses” of supermax incarceration—or other forms of extended isolation used to manage inmates—for achieving reductions in misconduct or systemwide order or violence (Mears and Reisig 2006; Mears and Bales 2010). For that reason, it would be reasonable to consider a more delimited use of supermax housing; this strategy would accord with a medical approach of relying on the least amount of treatment necessary to achieve some level of health. Here, of course, we do not know the dose necessary to achieve improved outcomes, and most prison systems have long since moved on from “emergency” situations (e.g., riots or sudden increases in inmate murders) that,

in some cases, justified a “last resort” option like supermaxes. Accordingly, a small-dose-first approach would seem the more reasonable strategy. A stronger version of this recommendation is to require that, as discussed above, states provide solid empirical evidence of a compelling state objective and the precise length of stay necessary to achieve that objective. Given the state of research to date, such a requirement likely would eliminate the use of supermax prisons because of the challenges in undertaking the necessary research to meet this standard.

A strategy of transitioning supermax inmates back into general population facilities prior to release into society and monitoring outcomes during and after supermax incarceration also would constitute a straightforward pragmatic change. Such a strategy would help to address concerns about the potentially adverse effects that supermax housing may have on inmate misconduct (Ward and Werlich 2003; King et al. 2008; Sundt et al. 2008) and successful reentry, especially among inmates released directly from supermax housing back into society (see, e.g., Lovell et al. 2007; Kupers 2008; Mears and Bales 2009; Lowen and Isaacs 2012).

Concerns about the “black box” of supermax housing stem from the fact that little is known about what happens in supermaxes, including the extent to which protocols for cell extractions, services, programming, treatment, and admission and release are appropriately followed (Smith 2006; Mears 2008b; U.S. Government Accountability Office 2013). They stem, too, from the fact that prison settings are dangerous and thus create conditions ripe for abuse (Conover 2000; Rhodes 2004; Shalev 2009). That does not mean that wardens or officers allow or undertake abuse, only that, from an organizational perspective, the conditions are highly conducive to abuse. Thus, improved oversight of supermax housing—and all forms of solitary confinement—coupled with research on its use, would seem to be indicated if such housing is to be used.

There also is a need for research that systematically compares the use and effects of various types of segregation. Prison systems use segregation, or isolation, for different periods of time, different reasons, and for different inmates. For example, relatively short stints in segregation may be used to provide punishment or protection to some inmates while relatively longer stints may be used for managerial purposes (Shalev 2009:2; see also Browne, Cambier, and Agha

2011:46). In reality, there may be considerable overlap among these groups of inmates, including the length of time spent in isolation. In addition, inmates placed in “protective custody,” “disciplinary confinement,” or “administrative segregation” in reality may be similar and serve similar periods of time in isolation. The effects may be similar as well. Research that systematically examines this issue could help ensure that the various uses of isolation accord with established protocols. It also could help prison systems better assess the effects of the different types of solitary confinement. And, not least, it could help ground policy debates by providing more credible information about the uses, benefits, and harms of such confinement.

An additional policy implication stands out—a central justification for supermax housing has been the claim that it constituted a “last resort” option. One step for states to take is to explore the veracity of that claim and document whether all other reasonable alternatives—including staff training, strategic dispersion of inmates, behavioral programming—truly have been exhausted. It may not always be clear that these alternatives are or will be effective. However, they typically cost substantially less than the various forms of extended isolation, and in many instances there in fact may be research to justify them (see, e.g., Gendreau and Keyes 2006). Even in the absence of research to support them, the argument for employing such alternatives is that they likely would be less financially costly and would raise fewer concerns about harm to inmates or prison systems.

The time is none too soon to place supermax and of types of solitary confinement—and criminal justice policy more generally—on a more evidence-based foundation. As this special issue of *Criminology and Public Policy* highlights, and as Sampson et al.’s (2013) essay argues, advances in statistical and causal analysis and database systems provide unique opportunities to improve our understanding of policy impacts. Capitalizing on these opportunities can help contribute evidence-based policy discussions about “what works.” Ultimately, evidence-based policy ideally should include credible empirical research not just on impacts and but also on mapping the causal logic that identifies the mechanisms and pathways through which a given policy produces impacts (Sampson et al. 2013). In addition, it should be based on assessment of

policy need, implementation, and cost-efficiency. All of these dimensions, as well as vigorous discussion about legal and ethical dimensions of sanctions and correctional system administrative tools, can help contribute to improved policies, programs, and practice.

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