

# Using Quality Improvement Models in Correctional Organizations

*Danielle S. Rudes*

*Jill Viglione*

*Courtney M. Porter*

*George Mason University*

*Center for Advancing Correctional Excellence (ACE)*

**ORGANIZATIONAL CHANGE IS** complicated. Within even the most nimble and adaptable organizations, changes in practice or policy face significant barriers, including structural inertia, goal and role conflicts, and resistant organizational cultures and climates. This holds true within many correctional agencies, where change is a daunting endeavor fraught with obstacles that affect both change processes and outcomes. Sluggishness regarding change within correctional organizations (Battalino, Beutler, & Shani, 1996; Cullen & Gendreau, 2000; Latessa, 2004; Taxman & Belenko, 2011) may evolve from a number of comingled factors. First, correctional organizations possess a nearly immovable mechanistic organizational structure (Burns & Stalker, 1961) rife with key components that make change tough (Duffee, 1986; Latessa, 2004; Toch & Klofas, 1982). These include centralized decision-making, stagnated managerial and staff hierarchies, and tall, complex bureaucratic designs. By and large, these structures are stable and feasible. The general framework underlying today's correctional organizations has required very little change over hundreds of years.

Second—and also largely unchanged throughout U.S. history—correctional agencies face a paradoxical goal and role conflict problem (Cullen & Gendreau, 2000; Garland, 2001; Rudes, Lerch, & Taxman, 2012) coupled with internal and external political, social, and moral pressures (Caplan, 2006; Ellsworth, 1990; Garland, 2001; Hepburn & Albonetti,

1980; Taxman, 2002; Thomas & Poole, 1975) that periodically privilege punitiveness over rehabilitation or vice versa. As the so-called metaphoric pendulum swings between bifurcated goals and ideologies, correctional organizations must align and realign current practices and policies with the punishment thinking of the day.

Third, this torpid structure contributes to an organizational culture/climate that mostly views organizational change with apathy and/or resistance (Agocs, 1997; Battalino et al., 1996; Ferguson, 2002; Lin, 2000; Rudes, 2012). Correctional workers and managers come to see the status quo as the most likely mechanism to ensure community safety (Battalino et al., 1996) and allow actuarial processes to overtake more human-focused ones (Simon, 1993). As a result, history reveals a prevalence of slow or non-existent change in U.S. correctional agencies.

However, in the last 10 years, the correctional landscape has seen some external changes that may be creating an opening for internal organizational change to occur. These include tight budgets that demand stretching scarce dollars wisely and pressure to change gut-level policies and practices into evidence-based ones (Rhine, Mawhorr, & Parks, 2006). Yet, armed with history, many correctional agencies do not desire or understand how to overhaul their current ways of doing business by replacing them with policy and practices backed by science.

Outside corrections, other mechanistic organizations, such as automobile manufacturing companies, have at times faced a strong external push to change. In the 1970s and 1980s, for example, Japanese car companies, trying to keep up with or overtake American automobile production, relied heavily on alternative organizational managerial structures to increase productivity and happiness within their workforce while lowering employee turnover and health-related issues (Ahire, Golhar, & Waller, 1996; Cusumano, 1994; Powell, Rushmer, & Davies, 2008). The Total Quality Management (TQM) quality improvement (QI) models used by these Japanese car companies are just one such process design geared to help historically rigid and dormant organizations mount successful change. However, bringing a QI model—an organizational change process designed to add structure, consistency, voice, and flow to change efforts—to correctional agencies is just another modification these organizations must contend with in a field now immersed with possible change options. This makes change an even more complicated enterprise.

In this article, we present a review of the literature on quality improvement models designed to enhance organizational change. Next, we highlight evidence of one quality improvement model's use—PDSA—within probation. Finally, we offer some theoretical and practical implications of using QI models within modern correctional organizations. Throughout this piece, we note the limited

scholarly evidence showing effective and/or efficient process improvements from QI model use.

## Review of Relevant Literature

Process improvement is an approach for helping organizations identify and resolve inefficient and ineffective processes through problem solving and pilot-testing change strategies (Evans, Rieckmann, Fitzgerald, & Gustafson, 2007). There are several QI processes for organizations that cover a wide range of activities. As organizations have unique structures, histories, and challenges that influence the change process, they need to consider these intra- and inter-organizational factors when making decisions regarding what kind of quality improvement process will work best (Powell et al., 2008). To date, the most commonly used QI processes include TQM, The Change Book, PDSA, and NIATx.

### *Total Quality Management (TQM)/Continuous Quality Improvement (CQI)*

Developed in the 1950s in Japan, Total Quality Management (TQM)/Continuous Quality Improvement (CQI) (Ahire, Golhar, & Waller, 1996; Powell et al., 2008) was adopted by some large manufacturers in the United States during the 1980s as a model focusing on products as the result of production processes (Powell, 1995). There are few comprehensive definitions of TQM/CQI; however, Powell (1995) previously defined TQM as an integrated management philosophy and a set of practices that emphasize continuous improvement, meeting customer requirements, and creating the ability for organizations to do things right on the first attempt. Quality TQM processes ensure measurability of desired outcomes; thus, the quality of the process (Taxman & Belenko, 2011), not just how the organization completes the process, exemplifies the TQM model.

Through a narrative review of quality improvement models, Powell and colleagues (2008) identified four key tenets necessary for TQM/CQI to work:

1. Emphasizing leadership involvement on project teams,
2. Viewing QI as a continuous and normal process within organizations,
3. Focusing on organizational systems (Taxman & Belenko, 2011) and avoiding mistakes, and
4. Evaluating and measuring for continuous improvement.

These four principles are crucial to the successful implementation of a TQM process

(Westphal, Gulati, & Shortell, 1997). Further, some researchers believe that TQM/CQI works best in process-oriented organizations that are customer focused and where management employs additional methods for improvement (Kennerfalk & Kelfsjo, 1995). For example, using quality function deployment (QFD), a tool used to manage and control product development processes (Kennerfalk & Kelfsjo, 1995) is helpful when implementing TQM processes. Other helpful tools include policy deployment, process management, and benchmarking as a form of performance evaluations (Kennerfalk & Kelfsjo, 1995), as well as working with internal and external customers to meet their needs, improving satisfaction, and emphasizing teamwork allowing organizations to identify and solve QI problems on their own (Powell et al., 2008).

To provide context to the TQM process, several studies identify key factors useful as a framework for organizations (Yusof & Aspinwall, 1999; Porter & Parker, 1993; Black & Porter, 1995). One set of such factors includes:

- management behavior,
- TQM strategies,
- TQM organization,
- TQM communication,
- TQM training,
- employee involvement,
- process management and systems, and
- quality technologies (Porter & Parker, 1993).

Similarly, Black and Porter (1995) developed a list that includes:

- people and customer management,
- supplier partnerships,
- communication of improvement information,
- customer satisfaction orientation,
- external interface management,
- strategic quality management,
- teamwork structures for process improvement,
- operational quality planning,
- improvement measurement systems, and
- corporate quality culture.

Through a research questionnaire, Black and Porter (1995) ranked the key factors, identifying strategic quality management as most important to the TQM process. Both studies (Porter & Parker, 1993; Black & Porter, 1995) found through organizational surveys that these factors are instrumental to the implementation of TQM, although some may be more important than others.

To date, there is limited evidence of the efficacy of TQM/CQI. Perhaps this is due to difficulty defining the vast number of

processes that fall under the TQM heading (Yusof & Aspinwall, 1999; Powell et al., 2008) and measuring or assessing key factors such as strategic quality management (Black & Porter, 1995). Available evidence shows variability in outcomes, indicating that TQM is helpful but may not address all the needs of an organization (Powell, 1995). Overall, TQM emphasizes meeting customer needs (Kennerfalk & Kelfsjo, 1995) through a holistic approach to improve quality by “identifying the underlying causes of poor performance” (Powell et al., 2008, p. 10). By producing a foundation that allows organizations to create processes to meet benchmarks (Taxman & Belenko, 2011), TQM uses scientific methodologies to improve outcomes and meet customer needs (Powell et al., 2008). Initially used in the manufacturing industry (Ahire, Golhar, & Waller, 1996), public enterprises such as health care organizations (Madsen, 1995; Powell et al., 2008) and service organizations in the private sector (Madsen, 1995; Powell, 1995) commonly employ TQM strategies to generate change. TQM is foundational in the field of QI, influencing many different initiatives to help organizations improve their end products and address organizational change (Taxman & Belenko, 2011), including *The Change Book*, PDSA, and NIATx.

### *The Change Book*

Similar to TQM’s management philosophy, the Addiction Technology Transfer Center (ATTC) developed a strategy that translates Rogers’ (2003) diffusion of innovation model into a technology transfer model, setting out the result in a comprehensive guide called *The Change Book*.

Rogers’ (2003) diffusion of innovations model refers to the way members communicate an innovation through organizational channels. This diffusion of innovation model contains four components: 1) the type of innovation, 2) communication, 3) timing, and 4) social structures (e.g., the hierarchal nature of a bureaucracy) (Rogers, 2003; Taxman & Belenko, 2011). For ATTC and *The Change Book*, technology refers to any knowledge, skills, or attitudes equivalent to Rogers’ type of innovation, relevant to the field in question. *The Change Book* includes principles, steps, strategies, and activities for organizations to implement change from within. There is also a supplemental workbook that organizations can use to walk through the transfer process described in *The Change Book*.

*The Change Book* identifies seven principles needed for the successful transfer of technology (ATTC, 2004).

1. A change initiative needs to be *relevant*, meaning the organization needs to recognize that the change in question has a practical application.
2. The initiative must be *timely*, meaning recipients should know that the need for change is now or in the near future.
3. There must be *clear* articulation of the language and process used to transfer the technology into an easily understood format.
4. Any change initiative must be *credible*, with the audience having confidence in the source of the technology.
5. It must be a *multifaceted* change initiative with a host of activities individualized for organizations.
6. The change needs *continuous reinforcement of new behavior* at all levels.
7. Communication throughout the change process must be *bi-directional*, with individuals given opportunities to communicate directly with those implementing the change (ATTC, 2004).

In addition to these guiding principles, *The Change Book* offers steps to help organizations design, develop, implement, evaluate, and revise plans for change (ATTC, 2004, p. 15). The steps are as follows:

1. Identify the problem.
2. Organize a team for addressing the problem.
3. Identify the desired outcome.
4. Assess the organization or agency.
5. Assess the specific audience to be targeted.
6. Identify the approach most likely to achieve the desired outcome.
7. Design action and maintenance plans for your change initiative.
8. Implement action and maintenance plans for your change initiative.
9. Evaluate the progress of your initiative.
10. Revise your action and maintenance plans based on evaluation results (go back to step 8).

Through *The Change Book*, ATTC (2004) also provides strategies and activities organizations can use to help implement change. Which of these is appropriate depends on the level where change is attempted (i.e., organizational level versus client/patient level). Strategies for effecting change at the organizational level include responding to staff concerns and providing non-threatening feedback, while strategies at the client/patient level

include education regarding the evidence and effectiveness of the innovation (ATTC, 2004).

Various articles credit *The Change Book* process when implementing organizational change (Courtney, Joe, Rowan-Szal, & Simpson, 2007; McCarty, Rieckmann, Green, Gallon, & Knudsen, 2004), reference *The Change Book* as a guide for change implementation (Gotham, 2006; Slayers et al., 2007), or simply reference its existence (Brown & Flynn, 2002; Luongo, 2007). However, none of the studies cited evaluate *The Change Book* process. Despite the lack of empirical evaluation (Taxman & Belenko, 2011), *The Change Book* provides organizations with a map to implementing change. McCarty, Rieckmann, Green, Gallon, and Knudsen (2004) provide an example of how organizations can use *The Change Book* to facilitate change. Using the 10-step blueprint as a guide for system development and technology transfer activities, rural counties in Oregon began implementation of The Opioid Medication Initiative for Rural Oregon Residents (OMIROR). Consistent with *The Change Book* recommendations, each county formed a team and met before the official training sessions. These meetings fostered relationships, involved stakeholders, identified needs, and enhanced communication among members. After successful training sessions on OMIROR in seven counties in Oregon, McCarty and colleagues (2004) report that using *The Change Book* “helped teams progress through tasks and become more confident in their plan and committed to implementation” (p. 207).

#### *Plan-Do-Study-Act (PDSA)*

The Plan-Do-Study-Act (PDSA) model is an iterative quality improvement process derived from TQM/CQI (Cox, Wilcock, & Young, 1999; Langley, Nolan, Nolan, Norman, & Provost, 1996). The PDSA process originates out of the work of Deming (1986), known for his work in QI (Best & Neuhauser, 2005; Cleary, 1995). Statistician Walter Shewhart, who introduced a cyclical process for learning and improvement in organizations, calling it the Plan-Do-Check-Act (PDCA), influenced Deming's work. In the 1950s, Deming introduced an adapted PDSA cycle, which replaced the “check” stage with “study” (Cleary, 1995; Deming, 1986).

The PDSA process is similar to a “trial and learn” approach in which one makes a hypothesis or suggested solution for improvement and runs small-scale tests before applying

the change throughout an entire organization (Varkey, Reller, & Resar, 2007). This QI process typically involves staff from all organizational levels, incorporating them into designing reform processes that can improve their understanding and buy-in (Langley et al., 2006). This gives staff the opportunity to understand organizational processes, assess organizational functionality, design change, and ask questions.

The PDSA process allows organizations and staff to identify goals they want to accomplish and determine how they want to integrate those goals into organizational activities. Specifically, this process involves four steps:

1. *Plan*: identify what is not working well and identify a goal to work towards,
2. *Do*: implement specific steps to work towards the identified goal,
3. *Study*: reflect on the outcomes and results of the process, and
4. *Act*: adopt, abandon, or adapt new practices.

This ongoing process allows organizations to constantly look for ways to improve fit and goal alignment (Langley et al., 2006) and improve the confidence of staff about changing workplace arrangements (Cox, Wilcock, & Young, 1999). Langley and colleagues (2006) propose three fundamental questions as a framework for improvement processes: 1) What are we trying to accomplish? 2) How will we know a change is an improvement? and 3) What changes can we make that will result in improvement? The PDSA process helps answer these questions as it involves building knowledge about current practice and choosing benchmarks to measure whether the planned changes result in improvement. In addition, the model incorporates staff in the continuous process, ensuring that individuals learn as they go and use what they have learned to inform future efforts (Langley et al., 2006). PDSA is also known as a rapid-cycle process because it focuses on quick decision making regarding how the process should be altered, benchmarks to define progress, and the desire to change practice (Taxman & Belenko, 2011). The PDSA process is the most commonly used approach for rapid-cycle improvement in health-care settings (Varkey, Reller, & Resar, 2007), but is also used in management and business settings (Hwang, Wen & Chen, 2010; Shewhart & Deming, 1939), and recently in criminal justice settings (Rudes et al., 2012).

### NIATx

A nationwide effort by the Robert Wood Johnson Foundation and the Center for Substance Abuse Treatment formed The Network for the Improvement of Addiction Treatment (NIATx) with a goal of identifying and addressing barriers to access and retention in addiction treatment (Ford et al., 2007). NIATx created a nationwide learning collaborative to work towards the improvement of addiction treatment services (Capoccia et al., 2007). The NIATx model, founded on the concepts of TQM and the PDSA model, provides learning opportunities and technical support to agencies so they can initiate and sustain process improvement approaches such as increasing retention and access to treatment (Capoccia et al., 2007; Ford et al., 2007). The overarching premise of the NIATx model is that addictions treatment agencies need to become more client-focused. More specifically, NIATx employs the PDSA concept of rapid-cycle testing to determine what processes need alteration to remove inefficiencies that result in delayed admissions and attrition (McCarty et al., 2007).

NIATx sets out to generate improvements in key benchmark areas, including reducing days to admission, enhancing retention in care, strengthening the quality of treatment, and increasing admissions (McCarty et al., 2007). The NIATx model has five core principles:

1. Understanding and including the customer in the process,
2. Identifying and fixing key problems and processes,
3. Identifying powerful and respected change agents,
4. Incorporating the ideas from individuals internal and external to the organization, and
5. Using rapid-cycle testing (Capoccia et al., 2007).

One of the first processes an organization goes through when working with the NIATx model is to engage in a learning collaborative meeting with an identified change team to learn techniques to analyze their system and work together (Taxman & Belenko, 2011). Organizations also conduct walk-through exercises in which staff walk through the experience of the customer to identify problematic practices and processes as a means to address the needs of customers and improve service delivery (Gustafson, 2004). Through this process, agencies identify a range of problems, such as poor staff engagement with clients, procedures and processes

that are burdensome, challenges associated with addressing the needs of clients, treatment admission problems, and other related infrastructure problems (Ford et al., 2007). Making minor improvements in these areas can improve clients' experiences in meaningful ways. Organizations involved in the NIATx process find positive changes in improving access to and retention in treatment (Ford et al., 2007; McCarty et al., 2007).

Almost 3000 behavioral health organizations around the country, most of them health-care providers, use the NIATx model (NIATx.net). More recently, two criminal justice settings—a drug court and an offender reentry program—used the NIATx model. NIATx provided technical assistance for an adult treatment drug court to improve access to and engagement in drug-court services to increase recovery and reduce recidivism (Wexler, Zehner, & Melnick, 2012). In this study, 10 drug courts participated, each conducting a walk-through, identifying a single aim (reducing wait time, increasing admissions, or reducing no-shows), forming change teams, and identifying an executive sponsor and change agents. Through modified scheduling practices, paperwork reduction, and institution of more thorough communication practices, drug courts saw a 57 percent reduction in client wait time over the course of 12 months. Additionally, admissions improved three to four times after a coordinator was

placed on-site to meet with clients on the day of court and after improvements in outreach and education about the drug court. Last, no-show rates declined and participation increased after introducing reminder phone calls, escorting participants to programs, and directly reporting to the drug court attendance at programs (Wexler, Zehner, & Melnick, 2012). The use of the NIATx model in an offender reentry program is still relatively new and has not undergone evaluation yet (NIATx.net).

Table 1 illustrates the similarities and differences in the four QI models discussed above. As mentioned, TQM provides the foundation for *The Change Book*, PDSA and NIATx; thus each of the latter three models includes key characteristics of TQM. However, the models also diverge from one another. For example, *The Change Book* is a manual providing a systematic guide to implementing change. The PDSA model is more process-oriented, providing a thorough progression that guides staff through various stages of change. Finally, NIATx incorporates the full PDSA process, but targets behavioral health organizations and adds a walk-through component.

There are many forms of QI processes. Organizations must consider the structure, environment, and goal(s) of each when deciding which process will work best for them. As the previous literature highlights, we know little about how QI processes play out in criminal justice settings and which forms of QI are most

**TABLE 1.**  
*Key Factors in Quality Improvement Models*

Key Factor	TQM/ CQI	The Change Book	PDSA	NIATx
Leadership Involvement	X	X	X	X
Continuous Processes	X	X	X	X
Focus on Organizational Systems	X	X	X	X
Evaluation & Measurement	X	X	X	X
Communication	X	X	X	X
Teamwork Structures	X	X	X	X
Guidebook to Change Process		X		
Focus on One Goal/Change		X	X	X
Focus on Multiple Goals/Changes		X		
Broad Application		X	X	X
Process Oriented			X	X
Benchmarks			X	X
Designed Specifically for Behavioral Health Care				X
Includes Walkthrough				X
Includes Rapid Cycle Process			X	X

useful in these settings. Criminal justice organizations are unique in that they must balance goals of punishment and rehabilitation that are often in direct conflict with one another (Cullen & Gendreau, 2000; Garland, 2001). This competing goal structure and the current movement towards the use of evidence-based practices (EBPs) can result in implementation and change processes that are often slow and unsuccessful (Cullen & Gendreau, 2000). Thus, examining how criminal justice organizations can use QI processes will improve understanding of how to initiate and implement change in these settings. The following section provides evidence from one of the few documented attempts to implement a QI model (PDSA) within a criminal justice setting.

### *QI Process in Criminal Justice Setting*

Conducted by Faye Taxman and colleagues, the Justice Steps (JSTEPS) project exemplifies a QI process in a criminal justice setting. JSTEPS was a multi-site research project that guided several problem-solving courts and probation agencies through the implementation of an individualized contingency management (CM) protocol. CM is a behavior modification program involving the use of gradual reinforcements and sanctions (Stitzer & Petry, 2006). Based on the premise of operant conditioning (Skinner, 1948), the underlying principles of CM suggest that using positive reinforcements for certain behaviors (i.e., drug abstinence) will encourage individuals to continue those behaviors. In an attempt to restructure behavior, positive reinforcers help shape individuals' thinking patterns as individuals learn to replace punishable behavior with reward-earning behaviors (Griffith, Rowan-Szal, Roark, & Simpson, 2000; Lussier, Heil, Mongeon, Badger, & Higgins, 2006; Petry & Martin, 2002; Rudes et al., 2012).

Typically used in substance abuse treatment settings, CM can help reinforce abstinence and treatment attendance (Stitzer & Petry, 2006). Meta-analyses confirm that CM is generally effective at promoting abstinence among drug users (Griffith et al., 2000; Lussier et al., 2006; Prendergast et al., 2006). While CM is common in the substance abuse treatment literature, there are only a few studies examining the use of CM with criminal justice-involved populations (Polakow & Doctor, 1974; Marlowe, Festinger, Dugosh, Arabia, & Kirby, 2008; Marlowe & Wong, 2008; Friedmann, Green, Rhodes, Harrington, & Taxman, 2010). Because criminal justice organizations are typically punitive and control-oriented environments, introducing a

program that involves rewards/incentives and a focus on offender change (rehabilitation) presents many challenges. Specifically, implementing evidence-based policies (EBPs) in probation/parole settings requires organizations to alter policies, practices, and ways in which organizational actors view their jobs (Rudes, Viglione, & Taxman, forthcoming). In this study, researchers used the PDSA process for several purposes. These included: 1) allowing each site to tailor the CM protocol to fit their unique needs and circumstances, 2) assisting staff in determining if CM provides advantages over current practice (Rudes et al., 2012), and 3) moving existing ideologies to support new ideologies (Rudes, Viglione, & Taxman, forthcoming). The following information outlines the learning process that the PDSA process facilitated as part of the JSTEPS study:

*Plan:* Each site learned about the features of CM, including key principles such as providing positive incentives with a point system.

*Do:* Each site designed their own protocol to fit within the organizational context. At this stage, sites created their own point system and mechanisms by which participants could earn positive incentives.

*Study:* Each site received feedback from researchers on how well their individual protocols aligned with the principles of CM. Common areas of difficulty were when to reward participants and what behaviors to reward them for.

*Act:* Each site refined their protocols based on a reexamination of the scientific principles of CM. Using information gained in the *study* phase, sites redesigned their protocols to align with CM. For many sites, this meant reducing the number of behaviors they focused on and improving point systems to ensure that reward distribution occurred early and frequently.

JSTEPS incorporated the PDSA process as a means to educate staff about CM, help staff design protocols that fit the needs of their organization, and refine protocols based on feedback and alignment with the core principles of CM (Rudes, Viglione, & Taxman, forthcoming). This process differs greatly from what often happens—telling staff they are going to be doing things a new way and assuming they will accept and implement an innovation. Throughout the process, it was evident that staff struggled to understand the purpose of using rewards, a key tenet

of CM, with criminal justice populations. In particular, staff were hesitant to reward behavior that they expected of probationers, such as providing clean urine samples. Thoughts about rewards began to change as staff worked through the PDSA process and understood how rewards could fit in their existing organizational context. As staff worked through perceived challenges, they began to see the potential for incorporating CM into their current organizational systems and routines. Ultimately, staff found CM both acceptable and feasible, displaying more positive attitudes and beliefs after the PDSA process was complete (Rudes et al., 2012). The JSTEPS PDSA process helped provide a collaborative environment that allowed staff members to facilitate organizational learning, build consensus on key operating principles, and assist teams throughout the implementation process.

### **Discussion**

The PDSA model afforded the JSTEPS-involved probation organizations a systematic approach to implementing evidence-based change. Using the four-stage Plan-Do-Study-Act model, probation agencies teamed up with academic researchers, with each side learning from the other throughout the change process. The importance of this collaborative approach cannot be overstated. In essence, the JSTEPS PDSA model involved all levels of the probation organization in the change process, while simultaneously creating a bridge between scholars and street-level correctional staff. This generated a win-win for both scholars and correctional staff. By teaming up with the *producers* of evidence-based practice (scholars), the *consumers* (probation staff) add legitimacy to their change process. That is, when a correctional organization implements evidence-based practices, the organization's status increases within the broader corrections field that values their use of money-saving and effective best practices. At times, this leads some correctional agencies to become a model for others. It also theoretically improves the likelihood of receiving external affirmation, recognition, and funding for organizations that are early adopters of research initiatives, as they help define what becomes evidence-based (Rogers, 1995).

However, while QI models offer a structural design *capable* of introducing and implementing change within organizations with the potential of creating effective, long-lasting policy or practice improvements, QI

models have some salient shortcomings. For the most part, these limitations relate to the scant scholarship on the QI model *effectiveness*. Hence, if QI models are to offer a way out of traditional change stagnancy within correctional agencies and researchers present these processes with evidence-based practices, then we must be able to show that QI models are evidence-based, too. Otherwise, correctional workers will return to doing what *feels right*, rather than what the science suggests will produce desired results.

To date, the literature yields little help in this regard. Hordes of studies of change processes using QI models within medicine (Courtney et al., 2007; Madsen, 1995; McCarty et al., 2004; Powell et al., 2008) and industry (Ahire et al., 1996; Cleary, 1995; Deming, 1986; Powell, 1995; Powell et al., 2008) provide data on the outcome of change implementation, but yield nothing suggesting that QI processes have any effect on change success or failure. This couples with the distinct infrequency with which QI models are used within correctional reform and the long-standing overemphasis on correctional outcomes, with negligible attention to process (Wilson & Davis, 2006). That said, NIATx does offer some evidence suggesting positive outcomes, but they do not specifically test the QI model. Therefore, we cannot definitively determine if the improved outcomes relate to the QI model or some other practice, process, or framework.

One possible solution is to use the criminal justice-favored randomized controlled trial (RCT) experimental design to examine both organizational change outcomes *and processes*. In this way, statistically matched organizations trying to make the same change would divide into control and treatment groups based not only on the change, but also on the process design. Control organizations would continue with the status quo without a QI model, with additional study arms representing treatment organizations undergoing change within a QI model design and those undergoing change without the QI model design. In this way we would be in a better position to conclude that QI models offer a substantial effective improvement over current change models. Many might contend that QI models could not make correctional change any slower or less effective than it already is; however, researchers and correctional agencies must set the bar high for measuring QI model effectiveness and efficiency if they are to facilitate evidence-based practice usage to improve

clients, organizations, and communities as they desire.

## References

- Addiction Technology Transfer Centers (2004). *The Change Book: A blueprint for technology transfer*, 2nd Edition. Kansas City, MO: Addiction Technology Transfer Center National Office. Retrieved from [http://www.nattc.org/pdf/The\\_Change\\_Book\\_2nd\\_Edition.pdf](http://www.nattc.org/pdf/The_Change_Book_2nd_Edition.pdf).
- Agocs, C. (1997). Institutionalized resistance to organizational change: Denial, inaction and repression. *Journal of Business Ethics*, 16, 917-931.
- Ahire, S. L., Golhar, D. V., & Waller, M. A. (1996). Development and validation of TQM implementation construct. *Decision Sciences* 27(1), 23-56.
- Battalino, J., Beutler, L., & Shani, A. B. (1996). Large-system change initiative: Transformation in progress at the California Department of Corrections. *Public Productivity & Management Review*, 20(1), 24-44.
- Best, M., & Neuhauser, D. (2005). W. Edwards Deming: Father of quality management, patient and composer. *Quality and Safety in Health Care*, 14(4), 310-312.
- Black, S., & Porter, L. J. (1995). An empirical model for total quality management. *Total Quality Management*, 6(2), 149-164.
- Burns, T., & Stalker, G. M. (1961). Mechanistic and Organic Systems. In Jay M. Shafritz & J. Steven Otto (2005), *Classics of Organization Theory*. Chicago: Dorsey Press.
- Brown, B. S., & Flynn, P. M. (2002). The federal role in drug abuse technology transfer: A history and perspective. *Journal of Substance Abuse Treatment*, 22, 245-257.
- Caplan, J. M. (2006). Parole system anomie: Conflicting models of casework and surveillance. *Federal Probation*, 70, 32-36.
- Capoccia, V. A., Cotter, F., Gustafson, D. H., Cassidy, E. F., Ford, J. H., Madden, L., et al. (2007). Making "stone soup": Improvements in clinic access and retention in addiction treatment. *Journal on Quality and Safety Improvement*, 33(2): 93-103.
- Cleary, B. A. (1995). Supporting empowerment with Deming's PDSA cycle. *Empowerment in Organizations*, 3(2), 34-39.
- Courtney, K. O., Joe, G. W., Rowan-Szal, G. A., & Simpson, D. D. (2007). Using organizational assessment as a tool for program change. *Journal of Substance Abuse Treatment*, 33(2), 131-137.
- Cox, S., Wilcock, P., & Young, J. (1999). Improving the repeat prescribing process in a busy general practice: A study using continuous quality improvement methodology. *Quality in Health Care*, 8, 119-125.
- Cullen, F. T., & Gendreau, P. (2000). Assessing correctional rehabilitation: Policy, practice and prospects. In J. Horney (Ed.), *Criminal Justice: Policies, Processes, and Decisions of the Criminal Justice System*, Vol. 3. Washington, D.C.: U.S. Department of Justice, National Institute of Justice.
- Cusumano, M. A. (1994). The limits of "lean." *Sloan Management Review*, 35, 27-27.
- Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: Massachusetts Institute of Technology. *Center for Advanced Engineering Study*, 6.
- Duffee, D. (1986). *Correctional management: Change and control in correctional organizations*. Prospect Heights, IL: Waveland Press.
- Ellsworth, T. (1990). Identifying the actual and preferred goals of adult probation. *Federal Probation*, 54, 10-15.
- Ferguson, J. L. (2002). Putting the "what works" research into practice: An organizational perspective. *Criminal Justice and Behavior*, 29(4), 472-492.
- Ford, J. H., Green, C. A., Hoffman, K. A., Wisdom, J. P., Riley, K. J., Bergmann, L., and Molfenter, T. (2007). Process improvement needs in substance abuse treatment: Admissions walk-through results. *Journal of Substance Abuse Treatment*, 33(4), 379-389.
- Friedmann, P. D., Green, T., Rhodes, A., Harrington, M., & Taxman, F. S. (2010). *Collaborative behavioral management reduces drug-related crime, substance use among drug-involved parolees*. Washington DC: Association for Medical Education and Research in Substance Abuse.
- Garland, D. (2001). *The culture of control: Crime and social order in contemporary society*. Chicago, IL: University of Chicago Press.
- Gotham, H. J. (2006). Advancing the implementation of evidence-based practices into clinical practice: How do we get there from here? *Professional Psychology: Research and Practice*, 37(6), 606-613.
- Griffith, J. D., Rowan-Szal, G. A., Roark, R. R., & Simpson, D. D. (2000). Contingency management in outpatient methadone treatment: A meta-analysis. *Drug and Alcohol Dependence*, 58, 55-66.
- Gustafson, D. (2004). Institute for healthcare improvement, information gathering tools: Walkthrough (IHI tool). Retrieved from <http://www.ihl.org/IHI/Topics/LeadingSystemImprovement/Leadership/Tools/Walkthrough.htm>
- Hepburn, J. R., & Albonetti, C. (1980). Role conflict in correctional institutions: An empirical examination of the treatment-custody dilemma among correctional staff. *Criminology*, 17(4), 445-460.

- Hwang, Y. D., Wen, Y. F., & Chen, M. C. (2010). A study on the relationship between the PDSA cycle of green purchasing and the performance of the SCOR model. *Total Quality Management*, 21(12), 1261–1278.
- Kennerfalk, L., & Klefsjo, B. (1995). A change process for adapting organizations to a total quality management strategy. *Total Quality Management*, 6(2), 187–197.
- Langley, G. J., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. (1996). *The improvement guide: A practical approach to enhancing organizational performance*. Jossey-Bass: San Francisco.
- Latessa, E. J. (2004). The challenge of change: Correctional programs and evidence-based practices. *Criminology & Public Policy*, 3(4), 547–560.
- Lin, A. C. (2000). *Reform in the making: The implementation of social policy in prison*. New Jersey: Princeton University Press.
- Luongo, G. (2007). Re-thinking child welfare training models to achieve evidence-based practices. *Administration in Social Work*, 31(2), 87–96.
- Lussier, J. P., Heil, S. H., Mongeon, J. A., Badger, G. J., & Higgins, S. T. (2006). A meta-analysis of voucher-based reinforcement therapy for substance use disorders. *Addiction*, 101, 192–203.
- Madsen, O. N. (1995). Public enterprise and total quality management. *Total Quality Management*, 6(2), 165–173.
- Marlowe, D. B., Festinger, D. S., Dugosh, K. L., Arabia, P. L., & Kirby, K. C. (2008). An effectiveness trial of contingency management in a felony preadjudication drug court. *Journal of Applied Behavior Analysis*, 41(4), 565–577.
- Marlowe, D. B., & Wong, C. J. (2008). Contingency management in adult criminal drug courts. *Contingency management in substance abuse treatment*, 334–354.
- McCarty, D., Rieckmann, T., Green, C., Gallon, S., & Knudsen, J. (2004). Training rural practitioners to use buprenorphine: Using The Change Book to facilitate technology transfer. *Journal of Substance Treatment*, 26(3), 203–208.
- McCarty, D., Gustafson, D. H., Wisdom, J. P., Ford, J., Choi, D., Molfenter, T., et al. (2007). Network for the Improvement of Addiction Treatment (NIATx): Enhancing access and retention. *Drug and Alcohol Dependence*, 88, 138–145.
- Petry, N. M., & Martin, B. (2002). Low-cost contingency management for treating cocaine and opioid-abusing methadone patients. *Journal of Consulting and Clinical Psychology*, 70(2), 398–405.
- Polakow, R. L., & Doctor, R. M. (1974). A behavioral modification program for adult drug offenders. *Journal of Research in Crime and Delinquency*, 11, 63–69.
- Porter, L. J., & Parker, A. J. (1993). Total quality management—the critical success factors. *Total Quality Management*, 4(1), 13–22.
- Powell, T. C. (1995). Total quality management as competitive advantage: A review and empirical study. *Strategic Management Journal*, 16, 15–37.
- Powell, T. C., Rushmer, R. K., & Davies, H. T. O. (2008). A systematic narrative review of quality improvement models in health care. *Social Dimensions of Health Institute at The Universities of Dundee and St Andrews*.
- Prendergast, M. M., Podus, D., Finney, J., Greenwell, L., & Roll, J. (2006). Contingency management for treatment of substance use disorders: A meta-analysis. *Addiction*, 101, 1546–1560.
- Rhine, E. E., Mawhorr, T. L., & Parks, E. C. (2006). Implementation: The bane of effective correctional programs. *Criminology & Public Policy*, 5(2), 347–358.
- Rogers, E. M. (1995/2003). *Diffusion of Innovations* (5th ed.). New York: The Free Press.
- Rudes, D. S. (2012). Getting technical: Parole officers' continued use of technical violations under California's parole reform agenda. *Journal of Crime & Justice*, 35(2), 249–268.
- Rudes, D. S., Lerch, J., & Taxman, F. S. (2012). Implementing a reentry framework at a correctional facility: Challenges to the culture. *Journal of Offender Rehabilitation*, 50(8), 467–491.
- Rudes, D. S., Taxman, F. S., Portillo, S., Murphy, A., Rhodes, A., Stitzer, M., Luongo, P. F., & Friedmann, P. D. (2012). Adding positive reinforcement in justice settings: Acceptability and feasibility. *Journal of Substance Abuse Treatment*, 42(3), 260–270.
- Rudes, D., Viglione, J., & Taxman, F. S. (forthcoming). Professional ideologies in United States probation and parole. In Fergus McNeil and Loan Durnescu (Eds.), *Understanding penal practices*.
- Shewhart, W. A., & Deming, W. E. (1939). *Statistical method from the viewpoint of quality control*. Dover Publications.
- Simon, J. (1993). *Poor discipline: Parole and the social control of the underclass, 1980–1990*. Chicago: The University of Chicago Press.
- Skinner, B. F. (1948). "Superstition" in the pigeon. *Journal of Experimental Psychology*, 38, 168–172.
- Slayers, M. S., McKasson, M., Bond, G. R., & McGrew, J.H. (2007). The role of technical assistance centers in implementing evidence-based practices: Lessons learned. *American Journal of Psychiatric Rehabilitation*, 10, 85–101.
- Stitzer, M., & Petry, N. (2006). Contingency management for treatment of substance abuse. *Annual Review of Clinical Psychology*, 2, 411–434.
- Taxman, F. S. (2002). Supervision—Exploring the dimensions of effectiveness. *Federal Probation*, 66(2), 14–27.
- Taxman, F., & Belenko, S. (2011). *Implementing Evidence-Based Practices in Community Corrections and Addiction Treatment*. New York, NY: Springer.
- Thomas, C. W., & Poole, E. D. (1975). Consequences of incompatible goal structures in correctional settings. *International Journal of Criminology and Penology*, 3(1), 27–42.
- Toch, H., & Klofas, J. (1982). Alienation and desire for job enrichment among correctional officers. *Federal Probation*, 46, 35–44.
- Varkey, P., Reller, M. K., & Resar, R. K. (2007, June). Basics of quality improvement in health care. In *Mayo Clinic Proceedings*, 82(6), 735–739. Elsevier.
- Westphal, J. D., Gulati, R., & Shortell, S. M. (1997). Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption. *Administrative Science Quarterly*, 42, 366–394.
- Wexler, H. K., Zehner, M., & Melnick, G. (2012). Improving drug court operations: NIATx organizational improvement model. *Drug Court Review*, 8(10), 80–95.
- Wilson, J. A., & Davis, R. C. (2006). Good intentions meet hard realities: An evaluation of the Project Green Light reentry program. *Criminology & Public Policy*, 5(2), 303–338.
- Yusof, S. M., & Aspinwall, E. (1999). Critical success factors for total quality management implementation in small and medium enterprises. *Total Quality Management*, 10(4/5), S803–S809.