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BetaHub Support for Practitioner-Led Randomized Controlled Trials and Related Research in

Correctional Facilities and Law Enforcement Agencies

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1. Summary

a. Major Goals and Objectives

The overarching goal was to increase experimental-research capacity in criminal-justice-system agencies to more effectively identify and address problems in justice-system domains and assess responses to them. In particular, the collaborative effort was to provide guidance and support to justice-agency personnel to promote a culture of learning in justice organizations, in order to better apply research approaches that produce useful knowledge about problems and solutions. The approach was responsive to local resources, regulations, agency perceptions of needs and attitudes, and the specific needs of persons involved with the justice system, determined in accord with partner sites.

The principal objectives were to (1) assist collaborating justice agencies and scholars in identifying areas for improvement, (2) collaboratively design and conduct pragmatic randomized-controlled trials (RCTs) to assess the effectiveness of proposed innovations, and (3) promote an enduring culture of learning in collaborating justice organizations in which innovation is encouraged and RCTs and other evaluations are routine.

b. Research Questions

The project did not pose any particular research questions in its design. Rather, it entailed working with stakeholders in partner agencies to identify issues of concern or interest to them that were amenable to, ideally, rapid-cycle RCTs (or to other methods when RCTs were impracticable). These could be established polices or practices that had never been subject to a

rigorous evaluation (if circumstances allowed for random assignment) or, more typically, innovations that merited testing before considering establishing them as policies or practices.

As the project developed, partner agencies were in corrections and law enforcement. Over the course of the project, ideas for RCTs were solicited from all stakeholders and assessed for feasibility, costs, possible benefits and risks, and institutional support. Candidate trials included, in policing, "situation tables" (non-criminal-justice responses for people experiencing a crisis in the community who would otherwise be subject to arrest), an intervention to reduce pretrial recidivism by domestic-violence defendants, officer defensive tactics, an officer-wellness peer-support program, implicit-bias training, communications to officers on the value of research, and improving police-community relations. In corrections, they included an aggression-management training program for prisoners in segregated housing, provision of incentives to reduce misconducts, peer-mentor orientation, and educating both prisoners and staff about the consequences of trauma and adverse childhood experiences (ACEs). (RCTs that were completed are noted below.)

c. Research Design, Methods, Analytical and Data Analysis Techniques

The project entailed, principally, conducting rapid-cycle randomized-controlled trials, and, secondarily, employing other study designs and analytical methods, as appropriate to research questions that arose and were developed during the course of the project. While each study varied in its specific design, methods, and techniques, the RCTs all entailed random assignment of individual subjects or larger organizational units, regions, or temporal units to either an intervention (treatment) condition or a control condition. Methods for randomization depended

on the trial. Analytical methods did so, as well, but were typically statistical tests for significance in differences in outcomes between the experimental conditions.

d. Expected Applicability of the Research

By its design, the process of the project—engaging with practitioners to build capacity and skills in conducting and making use of research—was as important as the findings of the particular studies conducted under it. Creating and nurturing a culture of field-initiated innovation and *local*-evidence-based practices is broadly applicable (in justice agencies and elsewhere in the public sector), and this project demonstrates that doing so is possible but requires careful consideration.

2. Participants and Other Collaborating Organizations

In its original design, the project was to engage with law-enforcement and corrections agencies. In each partner agency, one or more employees was trained by NYU BetaGov as a "pracademic," to lead the study effort within the agency; BetaGov worked with many stakeholders in the partner agencies, providing guidance on all phases of research, from design and site preparation to selecting measures and appropriate analysis and evaluation approaches, as well as data management (collection, preparing for analysis, retaining in repositories, ensuring security, etc.) Study participants included, variously, both agency staff and people they engage with.

In particular, in policing, the project trained national National Institute of Justice Law Enforcement Advancing Data and Science (NIJ LEADS) Scholars as pracademics in law-enforcement agencies. In corrections, the project was to have worked with facilities in the

Federal Bureau of Prisons (BOP) and with state corrections agencies. Over the course of the project, BetaGov developed study ideas with LEADS scholars in law-enforcement agencies including the Barrie (Ont.) PS, Charlotte-Mecklenburg (NC) PD, Las Vegas (NV) DPS, Manchester (NH) PD, Newark (NJ) PD, Redlands (CA) PD, Richmond (VA) PD, Sacramento (CA) PD, Vallejo (CA) PD), West Haven (CT) PD, West Vancouver (BC) PD, and Wichita (KS) PD. Other law-enforcement partners included the New York (NY) PD and Seattle (WA) PD. Partner corrections agencies included the Pennsylvania DOC, Idaho DOC, Nebraska DCS, and Ohio DRC.

3. Changes in Approach from Original Design

The basic approach from the original project design was maintained, with notable departures resulting from the Covid-19 pandemic. After a long process to grant BetaGov researchers access to BOP facilities and data, BOP withdrew as a partner due to closure of its facilities to researchers, from March 2020. State corrections agencies, to different degrees and for different durations, were also closed to researchers and were unable to facilitate research studies; as they reopened, the types of studies that they could entertain changed. And law-enforcement agencies changed their operations and practices during the pandemic, with reduced contacts and fewer opportunities for researcher engagement. Nonetheless, BetaGov continued to conduct (remote) training of pracademics and worked with practitioner partners to design studies that could be implemented without BetaGov personnel traveling to partner sites (as USDOJ and NYU rules barred us from traveling from March 2020 to mid-2022).

4. Outcomes

a. Activities and Accomplishments

The project trained pracademics and engaged with other stakeholders in more than a dozen justice agencies, soliciting and developing ideas for studies and implementing some that showed promise. Even those ideas that did not yield completed studies (whether due to infeasibility, ethical concerns, staffing or leadership changes, or Covid-19 pandemic exigencies) advanced the goal of building cultures of innovation and experimentation in the partner agencies—and beyond, as some pracademics have themselves become advocates in their professional societies or in new agencies that they have moved to.

Four trials were fully completed under the award:

- *Wichita (KS) Police Department: A Randomized Test of Follow-Up Text-Messages for Intimate-Partner-Violence Incidents.* IPV dyads received either a followup text message (intervention condition) or no text message (control condition). Persons involved in IPV service calls were randomized to one of the text-message conditions; this included calls in which arrests were not made but events may have been precursors for future IPV crimes. Outcomes were subsequent IPV episodes.

- *Vallejo (CA) Police Department: Virtual Reality for Law Enforcement Training*: *A Demonstration and Implication for Dispatch Priming.* Participants were attendees at a national evidence-based-policing conference. Using a virtual-reality headset and controller (replica pistol), participants were placed in a scenario confronting a subject in the field. A dispatcher, randomly, either primed the participant that the subject had a

gun or made no mention of one, and the subject, randomly, brandished either a handgun or a cellphone. Outcomes were whether the participant fired at the subject.

- *Pennsylvania Department of Corrections: Financial Education for Increasing Reentry Success.* Prisoners preparing to return to the community were either given a financial-education course (intervention condition) or were not (control condition). Outcomes were recidivism at 6 and 12 months post-release.

- *Ohio Department of Rehabilitation and Correction: 360 Virtual Reality Module to Introduce Participants to Community Supervision*. Prisoners preparing for reentry to the community were either given a 360-degree virtual-reality orientation to parole (intervention condition) or were not (control condition). Outcomes were self-reported measures of expectations of parole.

b. Results and Findings

The project process—engaging with justice-system stakeholders to develop and test policies and practices—succeeded in fostering cultures of innovation in partner agencies. In carrying out the project, we made a number of observations:

NIJ LEADS scholars are sophisticated partners. Working with NIJ LEADs scholars was somewhat different from partnering with other practitioners in that they are "research-ready" and most already had a strong background in research. But as with our practitioner partners in corrections, these law-enforcement scholars were still subject to the interests and demands of their leadership and were often required to serve as research champions with their colleagues

(who would vary in their level of enthusiasm for taking on the burden of a research-related task).

The Covid setback. As with the lion's share of field research being conducted across the United States since early 2020, our experiments were affected by the Covid-19 pandemic. It is not unusual for us to discontinue a planned experiment prior to launch, due to staff turnover, or problems encountered during the planning phase; we see the opportunity to opt out as an advantage of practitioner-centered research. However, during Covid, our pre-launch discontinuation was much higher than typical. Our partner agencies were often overwhelmed and adding a new research study was a reach too far. As a result, we had to "seed" a sizable number of experiments to get to a smaller number of completed experiments, burdening our staff and stretching timelines well beyond what is typical.

More willingness to engage in bite-sized research. We found our practitioner partners were more willing to implement an experiment if it lacked complexity. Historically, we may have tested multiple versions of an implementation with an eye to comparative effectiveness. During Covid, they were more interested in pursuing single-strategy approaches to reduce complexity and duration.

Learning on the side of an experiment. The most consequential learning was serendipitously happening "on the side" of the planned research. In our RCT of virtual reality to test the impact of dispatch priming, our study provided little new insight into the actual effects of dispatch priming but many novel insights into using VR as a law-enforcement training and testing tool, including what not to do in module development and how to optimize the user experience both

within and outside of the headset to maximize realism. Another form of serendipitous learning was how participation in experimental research became a de facto data audit, shining a bright light on recordkeeping and how, in many instances, it begged for improvement.

The need for speed. Our trials reinforced the need for speed in practitioner-centered research. Mostly, the trials that failed to make it past the planning phase were a consequence of agency or department action (or inactions). With large-scale research projects, MOUs are typically in place, and large budgets might make research too expensive to fail. Low-cost practitioner-centered research doesn't come with these protections.

Renewed appreciation for traditional research. We have always considered practitioner-centered research to be complementary to more traditional research, but this experience with practitioner-centered during Covid renewed our appreciation for the more traditional models. We were extremely limited in our ability to make in-person contact and we had to rely primarily on administrative records. Not all that is important is counted. We often found that administrative records contained woefully inadequate proxies for the constructs of interest. Better-funded studies can collect a rich tapestry of quantitative outcome measures and pair them with qualitative research that is essential to understanding broader implications of novel interventions and in helping interpret what is learned in the data.

Briefly, results and findings from the four fully completed trials were:

Wichita (KS) Police Department: A Randomized Test of Follow-Up Text-Messages for Intimate-Partner-Violence Incidents. There were no significant differences between the two conditions in the likelihood of subsequent IPV calls or in the number of days to the first subsequent IPV calls.

Vallejo PD: VR for Law Enforcement Training. Dispatch priming had no overall effect on the decision to shoot, whether the subject was armed or unarmed. Participants who were current or former law-enforcement officers made more accurate decisions than did civilian participants.

PADOC: Financial Education for Increasing Reentry Success. Participants in the intervention group were significantly less likely to have recidivated at 6 months post-release, but there was no difference in recidivism at 12 months.

ODRC: 360 VR. Participants in the intervention group were significantly more likely to report that they know what to expect on parole. There were no significant differences in self-assessments of likelihood of succeeding on parole nor in feelings of anxiety when thinking about parole. Participants responded positively to the VR 360 experience, with the great majority agreeing that using VR as an introduction to parole made them better prepared.

c. Limitations

BetaGov's pracademic-led, rapid-cycle testing process is meant to foster a culture of innovation and experimentation in criminal-justice agencies. Depending on the particular design, implementation, and outcomes, trials conducted within this process may yield actionable findings or they may serve as pilots, signaling that larger-scale trials are or are not warranted. These trials are meant to be quick to implement, so that results are available to decisionmakers

as they remain in their positions, and low cost, so there is little barrier to implementation.

These virtues, however, typically limit the numbers of participants or interventions and the

followup periods for data collection, so these trials typically have less power to detect modest

effects than do conventional, large-scale trials. In the four completed trials noted above, the

outcomes—whether differences between conditions or null results—should be taken as

advisory and indicating directions for further study before major commitments are made.

5. Artifacts

   a. List of Products

Snapshots of BetaGov studies are available at betagov.org/html/trials.html.

Hillhouse, M., et al. (2021). Mindfulness training for correctional staff: A randomized pilot study.

Corrections. doi: 10.1080/23774657.2021.1900756.

Hawken, A., & Hillhouse, M. (2021). An innovative approach to boost research in agencies.

Correctional News, **24**(4):31–32.

secure.viewer.zmags.com/publication/e90781b8#/e90781b8/30.

Potts, M., Hawken, A., Hillhouse, M., & Farabee, D. (2022). Virtual reality for law enforcement

training: a demonstration and implication for dispatch priming, *Police Practice and Research*,

23:5, 623–632. doi: 10.1080/15614263.2022.2065991.

A three-site study on the effect of lunar phase on crime, which included two NIJ LEADS scholars, generated substantial press coverage, including scitechdaily.com/researchers-analyze-lunar-effect-does-crime-increase-when-the-moon-is-full and phys.org/news/2019-10-crime-moon-full.html

NIJ disseminated information on project activities in "Notes from the field: Evidence-based practice research as responsible practice," Feb. 15, 2019 (nij.ojp.gov/topics/articles/notes-field-evidence-based-practice-research-responsible-practice); remarked on *PADOC's partnership with BetaGov* in "Conducting randomized controlled trials in state prisons," June 2020 (nij.ojp.gov/library/publications/conducting-randomized-controlled-trials-state-prisons); and noted BetaGov's process in "Evidence-based policing in 45 small bytes," May 2020 (nij.ojp.gov/library/publications/evidence-based-policing-45-small-bytes).

NIJ LEADS Scholar pracademics published on their experience with BetaGov:

- "Why our police department conducted data-driven and experimental trials," Feb. 3, 2020 (mark43.com/why-our-police-department-conducted-data-driven-and-experimental-trials).

- "How do we know it works? Conducting a rapid research police experiment to test the effectiveness of flashing police lights on auto crime," July 20, 2020 (nij.ojp.gov/topics/articles/how-do-we-know-it-works-conducting-rapid-research-police-experiment-test).

b. Data Sets

Study protocols, instruments, primary data, and analyzed data are maintained by BetaGov at the NYU Marron Institute.

c. Dissemination Activities

Angela Hawken and Maureen Hillhouse presented on a panel on "Implementing Evidence-Based Policing/BetaGov" at the ASEBP Conference in Cincinnati, May 20, 2019. Jonathan Kulick presented on a panel on "Ethical Research Design and Data Collection" at Data & Ethics: In the Public Sector for the Public Good? in New York City, May 29, 2019. Angela Hawken presented the VR dispatch-priming findings at the New York DCJS Law Enforcement Symposium in Albany, October 10, 2019.

Angela Hawken conducted a webinar for the Victoria (Australia) Department of Justice and Community Safety, "Becoming a 'Pracademic'—the NYU BetaGov Learning Model," Nov. 6, 2020 (crimeprevention.vic.gov.au/nyu-partnership).

Two NIJ LEADS Scholar pracademics presented on the partnership in a webinar, "Police-Led Field Experiments: Lessons from the NIJ's LEADS Scholars Program," July 19, 2019 (justiceclearinghouse.com/resource/after-the-webinar-police-led-field-experiments-qa-with-the-presenters).

Three NIJ LEADS Scholars Canada pracademics presented on the partnership at CrimeCon, Nov. 19, 2020 (youtube.com/watch?t=22&v=i6KYxzaTlm4).

- The impact of Covid-19 on the prevalence of intimate partner violence in three Canadian jurisdictions (minute 3:55)

- Developing a footwear database: Solving crime using shoeprints in the West Vancouver Police (minute 27:00)

- Collaborate Barrie: An evaluation of the effect of the multi service situation table to address those in acute elevated risk (minute 45:08)