

**Protocol Title: Reducing Duration of Untreated Psychosis Through  
Early Detection in a Large Jail System - Surveys of Correction Officers**

**NYSPI 7771**

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### **Lay Summary**

Persons with serious mental illnesses are overrepresented in jails. Criminal justice (CJ) involvement, including jail detention, is common among those with first-episode psychosis (FEP) and frequently precedes psychiatric treatment engagement. Yet, no documented interventions currently exist specifically to identify/engage such individuals while in jail and connect them to Coordinated Specialty Care (CSC) in the community upon release. Expansion of CSC programs across the U.S. provides an opportunity for partnership with the CJ system—one that has the potential to reduce the duration of untreated psychosis (DUP) and thus improve outcomes. To detect FEP and reduce DUP among detainees in a large, urban jail, we propose to implement: (1) a “Targeted Educational Campaign” (TEC), and (2) a Specialized Early Engagement Support Service (SEESS) in 3 jails on Rikers Island in New York City (NYC): Anna M. Kross Center (AMKC), Rose M. Singer Center (RMSC) and Robert N. Davoren Complex (RNDC). We expect the multi-media TEC to generate referrals to the Correctional Health Services (CHS), and to reduce our DUP-1 (psychosis onset to antipsychotic initiation). Then, the jail-based SEESS (a Social Worker and Peer Specialist) will link those identified to community-based CSC (primarily OnTrackNY sites in NYC), thus reducing DUP-2 (psychosis onset to CSC enrollment). We will examine a set of hypothesized targets/mediators (the “how’s”). These are key ingredients that underpin the intervention’s ability to reduce DUP. The multi-media TEC will generate referrals to the CHS. How will it do that? By improving the behavioral capabilities, expectations, and self-efficacy (constructs from Social Cognitive Theory) of the Correction Officers trained. We will assess feasibility and acceptability to lay the groundwork for a multi-site, definitive effectiveness trial.

### **Background, Significance and Rationale**

Treatment delay, or longer DUP, is linked to poorer outcomes (e.g., greater symptom severity, less remission, poorer quality of life) in FEP patients [1-4]. Early intervention for psychosis, as exemplified by CSC, leads to improved outcomes, especially when DUP is shorter. The NIMH RAISE-ETP study found that young people who initiate treatment within 1.5 years of symptom onset remain in treatment longer and show improved quality of life and work/school functioning [5]. An international movement is underway to determine ways to reduce DUP; however, it has largely neglected those with FEP who have become entangled in the CJ system.

Even with mounting evidence about the importance of early intervention, early detection programs have been concentrated mainly in mental health (e.g., inpatient psychiatric units), primary care (e.g., clinics), and educational settings (e.g., colleges) to date, and thus continue to miss a significant number of young people who do not traverse traditional pathways to care. Pathways for FEP patients are often delayed or bottlenecked by common sequelae of psychosis such as social withdrawal and loss of social support. Additionally, social factors like unemployment, residing in public housing, ethnic minority status, being underinsured, and—central to our intervention—a history of being locked up, can postpone accessing care and lengthen DUP [6-8]. There is very little literature worldwide on this, but there is evidence that CJ involvement is common in many FEP samples prior to treatment engagement [9-13]. In the PI’s study of 191 urban, disadvantaged, predominantly African American FEP patients—the only study that has examined the link between DUP and jail detention history—59% had a history of detention (primarily in jails for misdemeanors) prior to their first treatment and 37% had been detained at some point during their DUP [14]. Prior detention predicted a much longer DUP [14]. Further, national estimates show that 24% of people in jail have had psychotic symptoms in the past 12 months [15]. Large jails have become “public health outposts” in screening and, if appropriate, treating, large numbers of individuals who might not otherwise seek or be exposed to care in the community. Jails

likely have an enriched population for the detection of FEP, and thus need to collaborate with community-based CSC.

The development and implementation of a TEC and SEET in 3 jails seeks to reduce DUP for detained young people with FEP through “supply side” approaches. The TEC will educate Correction Officers about early signs and referring to correctional health services (CHS) staff. The SEET will forge referral networks that fast-track the initiation of CSC upon release from jail. The SEET will be comprised of two people: one professional social worker and one peer worker. Dr. Geneva Jones, Co-Investigator, will serve as an expert in peer support theories. Dr. Jones will advise on all aspects of the training and supervision of the peer specialist. Four interrelated bodies of knowledge guide this work. Three guide our TEC + SEET intervention: (1) the Scandinavian Early Treatment and Intervention in Psychosis (TIPS) model, (2) person-centered treatment and shared decision-making, and (3) Critical Time Intervention; and one guides our selection of targets/mediators (and thus intervention development): (4) Social Cognitive Theory.

Our intervention is critically informed by the TIPS study in Scandinavia, the largest experimental study of early detection to date. TIPS successfully reduced median DUP in FEP patients from 15 weeks to 4.5 using two core strategies: intensive, multi-media public information campaigns, and easy-access, low-threshold mobile early detection teams [16]. A wide body of literature attests to the pivotal role education campaigns can play in improving professional and public recognition of early warning signs and symptoms of many disorders [17]. TIPS developed a mass media campaign to both enhance the public’s knowledge of psychiatric disorders in general and early signs of psychosis in particular, and to reduce stigma associated with schizophrenia and psychiatry. Information was tailored to 3 target groups: the general public, general practitioners and healthcare workers, and teachers. Information was distributed systematically and repeatedly over several years. Notably, when a lack of funding interrupted the campaign for a period of time, the rate of referrals dropped (particularly from general practitioners) and DUP increased again, further showing the importance of information campaigns in reducing DUP [18]. The success of the TIPS campaign has led to efforts to replicate the approach in other places. In the US, the Specialized Treatment Early in Psychosis (STEP) clinic implemented the STEP-ED campaign that includes: public education, outreach to and academic detailing of professionals, and rapid access to the STEP clinic [19]. Our proposed intervention will take place in an urban jail setting rather than in the community; as such, it will focus on the same two interlocking strategies (TEC and SEET) used by TIPS to shorten DUP for people experiencing FEP, but tailored within the confines of the jail. The NYC jail system has over 55,000 admissions and roughly the same discharges each year, with high correctional staff turnover; a continuous and broad-reaching “Targeted Education Campaign” is essential to ensure the messaging works.

Studies show that person-centered communication (e.g., asking open-ended questions, involving patients in treatment decisions) has positive effects on satisfaction, treatment adherence, and health status [20-22]. Both the content of communication (e.g., creating space for the person’s interpretations of illness) and the context of communication (e.g., clinicians’ interpersonal behaviors, expectations about communication style, use of simplified language) influence treatment initiation and participation [23]. Clinician communication behaviors, such as building rapport, using open-ended questions, and answering questions, are a key mechanism for engagement. Communication functions that are key to promoting improved health outcomes include: establishing and maintaining the provider-patient relationship, exchanging information, validating and responding to emotions, managing uncertainty, sharing in making treatment decisions, and enabling patient self-management. Some of the pathways through which effective communication may lead to better health outcomes include improved patient

knowledge and shared understanding, improved access to care, improved therapeutic alliances, and improved patient agency [24]. Even though the health care provided in the jail system is not necessarily person-centered or oriented around shared decision-making, the work of the SEET—trained by the expert resources available at the Center for Practice Innovations and among the PI, Co-Investigators, and Consultants—will be framed by an approach that treats communication strategies as central to the future engagement of detainees in community-based CSC.

Our SEET will use a Critical Time Intervention (CTI) model to mobilize support for people with FEP during a period of transition from jail to the community. CTI was developed in the US in the 1990s based on the principles of case management and Assertive Community Treatment. CTI has been used with persons with mental illnesses, as well as those who are incarcerated. It has been evaluated extensively, with good evidence for its efficacy [25-26]. In a study of CTI among men with a serious mental illness who were leaving prison, CTI was effective at increasing engagement with services at 6 weeks; differences between the intervention and control group persisted through 6 months [27]. CTI will organize the activities of our SEET in that it is time-limited, focused, and designed to enhance support and engagement in services during critical periods of transition. Assertive outreach and ongoing engagement in jail, combined with brokering relationships with CSC leading up to and upon release (and telephonic support after release until CSC engagement) will ensure that individuals are adequately supported while detained and following their return to the community.

The jail-based TEC (and our targets/mediators) are also heavily influenced by Social Cognitive Theory and its concepts of behavioral capabilities (knowledge and skills), self-efficacy, and expectations. Social Cognitive Theory, developed by Bandura [28-29], posits that behavior is underpinned by personal (cognitive, affective, and biological), behavioral, and environmental factors that interact and influence each other bidirectionally. As applied to the field of health promotion, Social Cognitive Theory specifies a core set of determinants, the mechanisms through which they work, and the optimal ways of translating them into health practices. Five determinants are central: (1) behavioral capabilities—or knowledge and skills about health risks and benefits—that create the preconditions for change; (2) perceived self-efficacy about one's ability to successfully perform tasks; (3) expectations about the outcomes of certain actions or health habits; (4) personal goals for change; and (5) perceived facilitators and barriers to change [30]. As described in more detail below, the TEC is an intervention that will target Correction Officers' knowledge about the early symptoms of psychosis, and how to make a referral to the CHS, their self-efficacy to detect symptoms of psychosis and make referrals, and their expectations about their ability to be successful in making that referral (and for referrals to result in beneficial outcomes). All aspects of the TEC will be designed to improve behavioral capabilities, expectations, and self-efficacy. That is, regardless of the media (e.g., poster, flyer, brief roll-call training for Correction Officers), all TEC materials will target very specific knowledge and skills, increase expectations about the benefits of the SEET and CSC/OnTrackNY, and increase self-efficacy about one's ability to make a referral. Messaging will be specific, straight-forward, as simple as possible, and repetitive, so that we can effectively improve knowledge/skills, expectations, and self-efficacy in a focused way. These changes will ultimately influence rates of identifying detainees with undetected FEP and referral to CHS. Social Cognitive Theory, as well as everyday experience, suggests that in order to successfully carry out a behavior, one must have the necessary knowledge/skills, the beliefs that what is expected to occur actually will occur, and the self-confidence to carry out that specific behavior. In targeting these mediators, our TEC will therefore have the greatest chances of generating referrals to the CHS (especially referrals of quietly psychotic young people who would have otherwise gone undetected and thus not referred to CHS).

Abundant evidence documents racial and ethnic disparities in access to mental health services [31-33]. While the underlying root causes of these disparities are complex—explained by patient-level, provider-level, and system-level factors—studies show that they persist even when controlling for differences in socioeconomics [32]. Racial and ethnic disparities also occur in pathways to care in FEP patients. Stigma remains a significant barrier to treatment and African Americans are more likely to experience negative routes to psychiatric care such as through the CJ system or involuntary hospitalizations [34-38]. Given that the population in the NYC jail system is 87% Black and Hispanic and that no specialized FEP treatment services currently exist within the jail system, our intervention has the potential to significantly improve treatment access for a population of young minorities with FEP who traditionally experience significant barriers to care.

### **Specific Aims and Hypotheses**

Implement a Targeted Educational Campaign (TEC) within 3 jails at NYC's Rikers Island. The TEC is designed to lead to referrals of detainees (previously not detected as having potential mental health concerns) to Correctional Health Services (CHS) by Correction Officers. We expect that referral will occur via changes in scores on behavioral capability (knowledge/skills), expectations, and self-efficacy (among Correction Officers). Although this R34 feasibility study is meant to determine likely effect sizes rather than demonstrate statistical significance (which would be the goal of a subsequent, larger, multi-site study), using the data that we collect, we hypothesize that the number of referrals to CHS will be associated with: cumulative changes in Correction Officers' survey scores on behavioral capability, expectations, and self-efficacy.

### **Description of Subject Population**

#### **Specify subject population:**

Correction Officers

#### **Number of completers required to accomplish study aims:**

540

#### **Projected number of subjects who will be enrolled to obtain required number of completers:**

540

#### **Age range of subject population:**

over 21

The implementation of the Target Educational Campaign (TEC) will involve Correction Officers working at three jails: the Anna M. Kross Center (AMKC), the Rose M. Singer Center (RMSC), and the Robert N. Davoren Complex (RNDC), all located on Rikers Island in New York City. Correction Officers in these three jails will be approached to complete brief surveys. The study will need 540 completed surveys over the course of the three time points (180 surveys at each). Since identifying information is not being collected from the Correction Officers, it is possible that some of Correction Officers will participate more than once, meaning less than 540 Officers total will participate.

### **Recruitment Procedures**

Recruitment of the study sample will take place in 3 jails on Rikers Island in New York City (NYC): Anna M. Kross Center (AMKC), Rose M. Singer Center (RMSC), and the Robert N. Davoren Complex (RNDC).

*How and by whom will subjects be approached and/or recruited?*

Correction Officers in these three jails will be exposed to the Targeted Educational Campaign (TEC). Correction Officers will be approached and recruited during roll call and in the staff canteen where they take their meal breaks, or at a time/location agreed upon by the Department of Correction, to complete brief surveys to assess engagement of Target C at three different times: pre-exposure, after 6 months, and after 12 months from the beginning of the TEC. Jason Tan de Bibiana and Adria Zern, coordinated and supervised by Dr. Pope and Dr. Compton, will approach Correction Officers briefly presenting the study and asking for completion of the survey.

In the event that social distancing guidelines pertaining COVID-19 prevent the research team for going to the jails to survey the Officers at the 6 and 12-month follow-up time periods, we will coordinate with our study partners to administer the anonymous survey. The Deputy Wardens and/or Captains at the jails will introduce the survey during the daily roll-call meetings, and they will distribute the participant information document and survey to each Officer for their review. The Deputy Wardens and Captains will tell the Officers that the survey is voluntary and anonymous, but if they wish to complete it, they can put their completed survey in a container in the Officer's canteen or other communal space.

### **Inclusion/Exclusion Criteria**

#### **Inclusion Criteria**

1. Exposure to the Targeted Educational Campaign
2. Aged at least 21 years

#### **Exclusion Criteria**

1. Children under the age of 21

### **Consent Procedures**

Correction Officers staff will receive an information sheet at the beginning of the questionnaire explaining the study, confidentiality, and possible risks and benefits. Continuing on to the questionnaire will imply that the subject consents to take part to the study. The survey takes about 10 minutes. We will not be using a signed informed consent form so that this study can be anonymous in addition to being confidential.

### **Waiver of Documentation of Consent**

We will not be collecting any identifiable information from survey participants (Correction Officers); the surveys will be anonymous. Our plan to use a "Participant Information Document" (rather than signed Informed Consent Form) will allow us to not collect name and signature.

### **Study Procedures**

We will collect pre-Targeted Educational Campaign (TEC) and during-TEC (at 6 months and 12 months) survey data, which will be used to test engagement of Target C: changes in mean scores for behavioral capability, expectations, and self-efficacy, which are three key constructs from Social Cognitive Theory. The brief (10-minute) survey will assess knowledge and skills (behavioral capability), expectations, and

self-efficacy. It will be offered to any staff in the jail, regardless of whether they have received an in-person (e.g., in roll call) training, since the various types of TEC materials are hypothesized to influence behavior, expectations, and self-efficacy.

### **Assessment Instruments**

Correction Officer Surveys: will measure three constructs from Social Cognitive Theory (behavioral capabilities (knowledge/skills), expectations, self-efficacy), as well as social distance stigma, while keeping the survey to approximately 10 minutes.

### **Risks/Discomforts/Inconveniences**

We do not foresee any risks for Correction Officers. Their participation is completely voluntary and the information collected will be confidential and anonymous, and will not be disclosed outside of the research team.

#### *Procedures for Minimizing Risks*

Any risk of perceived coercion will be addressed by fully informing participants that their decision to participate is voluntary and will not be reported to anyone outside of the research team. We (or in the event that we cannot distribute the surveys due to social distancing, the Deputy Wardens and Captains) will explain that their decision will in no way impact their relationship with their employer or others. Risks to confidentiality also will be minimized. Participants' names and other potential identifiers will not be included in the dataset and each participant will be assigned a unique ID number. Surveys will be made anonymous by using a unique code created by the participant, as in Dr. Compton's prior survey-based research. For example, on the front page of the survey, respondents will be asked:

- What is the first letter of your middle name?
- What is the first letter of the street you live on?
- What is the last digit of the year you were born?
- What is the last two digits of your Social Security Number?

Doing so will create a unique identification code for each participant (e.g., JB223, TF189) to ensure anonymity, while allowing us to match any participants who complete a later survey (at 6 months or 12 months).

### **Method to Protect Confidentiality**

We will collect some identifiable information that will be used for the purpose of determining basic eligibility criteria, and we will carefully protect such information. All information collected will be confidential and will not be disclosed outside of the research team. We will keep all records private and confidential to the extent permitted by law.

All initial screenings and interviews will be conducted in the same private interview rooms/spaces used by Correctional Health Services staff for meetings and counseling sessions. Consent forms with participants' signatures will be securely stored in a locked file cabinet in a locked research office in a secure building.

Subjects' name and other potential identifiers will not be included in the notes or dataset, and each participant in the study will be assigned a unique ID number. The only link between identifying information and the unique ID number will be the paper consent forms. Information pertaining to

individual participants will only be released with their informed and written consent, except in unusual cases where withholding such information might pose a serious risk or danger to the participant or others. Publications and presentations will not report names, initials, or descriptors that could in any way violate confidentiality. These efforts to protect against potential risks are expected to be very effective, as they have been for our prior research.

### **Direct Benefits to Subjects**

There may be no definite direct benefits to individual participants of the proposed study. Given the minimal risks and potential benefits of the proposed research to participants and the significant potential benefit of knowledge gained, there is no evidence that the risk-benefit ratio would suggest changes to the research plan at the present time.

### **Statistical Analysis Plan**

The Targeted Educational Campaign (TEC) is designed to lead to referrals of detainees (previously not detected as having potential mental health concerns) to Correctional Health Services (CHS) by Correction Officers within 3 jails at NYC's Rikers Island. We expect that referral will occur via changes in scores on behavioral capability (knowledge/skills), expectations, and self-efficacy (among Correction Officers). Although this R34 feasibility study is meant to determine likely effect sizes rather than demonstrate statistical significance (which would be the goal of a subsequent, larger, multi-site study), using the data that we collect, we hypothesize that the number of referrals to CHS will be associated with: cumulative changes in Correction Officers' survey scores on behavioral capability, expectations, and self-efficacy.

Although survey participants who complete a short series of questions allow us to generate unique IDs that would be consistent across time, we expect that the number of surveys that matched from baseline to 6-months, from baseline to 12-months, and from 6-months to 12-months will be low. Therefore, rather than calculating changes in measurement scores as the primary outcome, each independent cohort (at each time point) will be considered to be a representative sample of the overall correction officer population over time, and we will use the measurement scores at 6-months as the primary outcome.

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