

Final Progress Report for Research Projects Funded by Health Research Grants

Instructions: Please complete all of the items as instructed. Do not delete instructions. Do not leave any items blank; responses must be provided for all items. If your response to an item is “None”, please specify “None” as your response. “Not applicable” is not an acceptable response for any of the items. There is no limit to the length of your response to any question. Responses should be single-spaced, no smaller than 12-point type. The report **must be completed using MS Word**. Submitted reports must be Word documents; they should not be converted to pdf format. Questions? Contact Health Research Program staff at 717-783-2548.

1. **Grantee Institution:** Treatment Research Institute
2. **Reporting Period (start and end date of grant award period):** 01/01/2011 - 06/30/2013
3. **Grant Contact Person (First Name, M.I., Last Name, Degrees):** Rosalyn L. Weinstein
4. **Grant Contact Person’s Telephone Number:** (215) 399-0980
5. **Grant SAP Number:** 4100054873
6. **Project Number and Title of Research Project:** 1 - Medication Assisted Treatment for Opioid, Alcohol Dependence: Improving Knowledge, Attitudes and Referrals
7. **Start and End Date of Research Project:** 01/01/2011 - 06/30/2013
8. **Name of Principal Investigator for the Research Project:** Jason C. Matejkowski, PhD
9. **Research Project Expenses.**

9(A) Please provide the total amount of health research grant funds spent on this project for the entire duration of the grant, including indirect costs and any interest earned that was spent:

\$ \$139,969

9(B) Provide the last names (include first initial if multiple individuals with the same last name are listed) of **all** persons who worked on this research project and were supported with health research funds. Include position titles (Principal Investigator, Graduate Assistant, Post-doctoral Fellow, etc.), percent of effort on project and total health research funds expended for the position. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name, First Name	Position Title	% of Effort on Project	Cost
Matejkowski, Jason	Principal Investigator	35% Yr 1; 20% Yr 2; 20% Yr 3	\$30,836
Croft, Jason	Section Coordinator	4.5% Yr 1; 10% Yr 2	\$4,659
Musselman, Thea	Section Coordinator	7% Yr 1; 3% Yr 2	\$2,146
Seymour, Brittany	Research Assistant	30% Yr 2	\$12,499
Christmann, Adam	Research Assistant	38% Yr 1; 15% Yr 2	\$14,204
Lam, Van	Applications Developer	10% Yr 2; 10% Yr 3	\$18,532

9(C) Provide the names of **all** persons who worked on this research project, but who *were not* supported with health research funds. Include position titles (Research Assistant, Administrative Assistant, etc.) and percent of effort on project. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name, First Name	Position Title	% of Effort on Project
Festinger, David	Co-Investigator	2.5%
Dugosh, Karen	Co-Investigator	2.5%
Harron, Ashley	Doctoral Intern	5%

9(D) Provide a list of **all** scientific equipment purchased as part of this research grant, a short description of the value (benefit) derived by the institution from this equipment, and the cost of the equipment.

Type of Scientific Equipment	Value Derived	Cost
None		

10. Co-funding of Research Project during Health Research Grant Award Period. Did this research project receive funding from any other source during the project period when it was supported by the health research grant?

Yes _____ No X _____

If yes, please indicate the source and amount of other funds:

11. Leveraging of Additional Funds

11(A) As a result of the health research funds provided for this research project, were you able to apply for and/or obtain funding from other sources to continue or expand the research?

Yes _____ No X _____

If yes, please list the applications submitted (column A), the funding agency (National

Institutes of Health—NIH, or other source in column B), the month and year when the application was submitted (column C), and the amount of funds requested (column D). If you have received a notice that the grant will be funded, please indicate the amount of funds to be awarded (column E). If the grant was not funded, insert “not funded” in column E.

Do not include funding from your own institution or from CURE (tobacco settlement funds). Do not include grants submitted prior to the start date of the grant as shown in Question 2. If you list grants submitted within 1-6 months of the start date of this grant, add a statement below the table indicating how the data/results from this project were used to secure that grant.

A. Title of research project on grant application	B. Funding agency (check those that apply)	C. Month and Year Submitted	D. Amount of funds requested:	E. Amount of funds to be awarded:
None	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _)		\$	\$

11(B) Are you planning to apply for additional funding in the future to continue or expand the research?

Yes X No _____

If yes, please describe your plans:

We plan to seek funding that will support a larger more powerful test of the MAT training with criminal justice professionals. The effect sizes garnered from this study will be used to make the case to state, federal and private grant makers for the continued development, testing and dissemination of the MAT training.

12. Future of Research Project. What are the future plans for this research project?

We are currently preparing a manuscript on the results of the study. We anticipate submitting the manuscript to a peer-reviewed publication within the next few months. We also plan to use data gathered as part of this project as preliminary studies for future projects and funding applications.

13. New Investigator Training and Development. Did students participate in project supported internships or graduate or post-graduate training for at least one semester or one summer?

Yes _____ No X*

*One pre-doctoral intern (non-Hispanic, white male) worked on the project, but was not supported by project funds.

If yes, how many students? Please specify in the tables below:

	Undergraduate	Masters	Pre-doc	Post-doc
Male				
Female				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
Hispanic				
Non-Hispanic				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
White				
Black				
Asian				
Other				
Unknown				
Total				

14. Recruitment of Out-of-State Researchers. Did you bring researchers into Pennsylvania to carry out this research project?

Yes _____ No X

If yes, please list the name and degree of each researcher and his/her previous affiliation:

15. Impact on Research Capacity and Quality. Did the health research project enhance the quality and/or capacity of research at your institution?

Yes X No _____

If yes, describe how improvements in infrastructure, the addition of new investigators, and other resources have led to more and better research.

We were able to train three staff in the use of Adobe Captivate. Captivate is a software program that allows for development of interactive eLearning content. With the skills acquired at these training workshops, TRI staff now have the capacity to develop eLearning

applications that can be used in the various research contexts that TRI scientists are involved.

16. Collaboration, business and community involvement.

16(A) Did the health research funds lead to collaboration with research partners outside of your institution (e.g., entire university, entire hospital system)?

Yes _____ No X _____

If yes, please describe the collaborations:

16(B) Did the research project result in commercial development of any research products?

Yes _____ No X _____

If yes, please describe commercial development activities that resulted from the research project:

16(C) Did the research lead to new involvement with the community?

Yes _____ No X _____

If yes, please describe involvement with community groups that resulted from the research project:

17. Progress in Achieving Research Goals, Objectives and Aims.

List the project goals, objectives and specific aims (as contained in the grant agreement). Summarize the progress made in achieving these goals, objectives and aims for the period that the project was funded (i.e., from project start date through end date). Indicate whether or not each goal/objective/aim was achieved; if something was not achieved, note the reasons why. Describe the methods used. If changes were made to the research goals/objectives/aims, methods, design or timeline since the original grant application was submitted, please describe the changes. Provide detailed results of the project. Include evidence of the data that was generated and analyzed, and provide tables, graphs, and figures of the data. List published abstracts, poster presentations and scientific meeting presentations at the end of the summary of progress; peer-reviewed publications should be listed under item 20.

This response should be a DETAILED report of the methods and findings. It is not sufficient to state that the work was completed. Insufficient information may result in an unfavorable performance review, which may jeopardize future funding. If research findings are pending publication you must still include enough detail for the expert peer reviewers to evaluate the

progress during the course of the project.

Health research grants funded under the Tobacco Settlement Act will be evaluated via a performance review by an expert panel of researchers and clinicians who will assess project work using this Final Progress Report, all project Annual Reports and the project's strategic plan. After the final performance review of each project is complete, approximately 12-16 months after the end of the grant, this Final Progress Report, as well as the Final Performance Review Report containing the comments of the expert review panel, and the grantee's written response to the Final Performance Review Report, will be posted on the CURE Web site.

There is no limit to the length of your response. Responses must be single-spaced below, no smaller than 12-point type. If you cut and paste text from a publication, be sure symbols print properly, e.g., the Greek symbol for alpha (α) and beta (β) should not print as boxes (\square) and include the appropriate citation(s). DO NOT DELETE THESE INSTRUCTIONS.

Project Overview

In *Phase I*, we identified existing training programs on the topic of medication assisted treatment of chemical dependence (MAT) that were developed by the Substance Abuse & Mental Health Services Administration (SAMHSA), National Institute on Drug Abuse (NIDA), Addiction Technology Transfer Center (ATTC), and other treatment specialists. We conducted an in-house review of these products with a multidisciplinary team of experts in the areas of communications, substance abuse treatment, and criminal justice (CJ) experts with the goals of (1) identifying relevant content that could be incorporated into our proposed MAT training for CJ addiction treatment referrers and policymakers and (2) determining what content needed to be developed. In *Phase II*, we convened an expert panel of academic researchers, correctional-based treatment providers and referrers, and addictions policymakers to conduct an external evaluation of the material gathered in Phase I. Expert panel meetings were held at TRI and at panel members' agencies in Philadelphia with the aim of gathering these stakeholders' suggestions for improvement and consolidation of the training material. In *Phase III*, we used the expert feedback to develop a beta version of our online MAT training with careful coordination between TRI's investigators and data programmer. We distributed this beta version of the training to the consultants who provided feedback on the product's content and usability. We incorporated this last round of feedback into the finalized version of the training. In *Phase IV*, we conducted an experimental study to determine whether, and to what extent, the training impacted treatment referrers' and policymakers' knowledge, attitudes, and (as appropriate) willingness to refer clients to MAT. We randomly assigned treatment referrers serving correctional populations in Pennsylvania to receive either the MAT training or an attention control training. The groups were compared on the post-training outcomes of knowledge, attitudes, and willingness to refer. We also employed a pre-post design to assess the impact of the training with decision-makers within the CJ system. In *Phase V*, we made modifications to the training based on study outcomes and trainee feedback. This work will serve as the basis of future funding proposals and to support research and dissemination of the training in the CJ system and other settings.

Phase I

As part of Phase I, we conducted an in-house review of the MAT training that included a presentation to approximately thirty communications, substance abuse treatment and criminal justice (CJ) experts at TRI. This feedback was incorporated into the training. We also met individually with Dr. George Woody to present the training and receive his feedback and comments for improvement. Dr. Woody is a Professor in the Department of Psychiatry at the University of Pennsylvania with 35 years of specialized research on substance abuse treatment efficacy. He is currently Director of the Delaware Valley Node of the NIDA-funded Clinical Trials Network. Dr. Woody's suggestions for improvement were incorporated into the training.

Phase II

Phase II consisted of consultation with experts that included academic researchers, correctional-based treatment providers and referrers, and addictions policymakers. We presented the resulting MAT training to some of the top academic researchers and policymakers in the field of addictions at the Center for Studies of Addiction at the University of Pennsylvania including Charles P. O'Brien, MD, PhD. Dr. O'Brien is Chief of Psychiatry at the Philadelphia VA Medical Center, Vice-Chair of Psychiatry at the University of Pennsylvania, and Director of the Center for Studies of Addiction. In addition to his pioneering work on opiate agonist medication, his research has focused on the neurological effects of psychoactive substances and biomedical and behavioral treatments for addiction.

We obtained additional feedback from A. Thomas McLellan, PhD. Dr. McLellan is the founder and CEO of the Treatment Research Institute and former Deputy Director of the White House Office of National Drug Control Policy. In his role as Deputy Director, he co-authored the President's National Drug Control Strategy and helped to integrate substance abuse prevention and treatment into the national healthcare reform legislation. Feedback from these renowned experts was incorporated into the training in advance of further review by community providers.

The revised training was presented to administrators at Community Education Centers (CEC) and Philadelphia's Public Health Management Corporation (PHMC). Steve Tomlin, Dr. Ralph Fretz and Dr. Robert Mackey of CEC joined us at TRI to view and provide feedback on the MAT training. Dr. Mackey is Senior Vice President for Clinical Services, Quality Assurance and Research at Community Education Centers. With more than 30 years of experience, Dr. Mackey has provided therapeutic services to adult and juvenile offenders in public and private sector operations. He is a Licensed Psychologist and Clinical Alcohol & Drug Counselor and has also served as a law enforcement officer. Dr. Ralph Fretz is the Director of Assessment and Research for Community Education Centers and Steve Tomlin is Eastern Regional Director for CEC overseeing the sites where the MAT training is to be implemented with CEC staff. In addition, we presented the training to Laurie Corbin, Program Director of Forensic Services, at PHMC. Ms. Corbin oversees the sites where the MAT training is to be implemented with PHMC staff. Feedback from these experts was incorporated into the training.

The goal of Phases I and II was to identify training material to serve as the basis for an

intervention that conveys accurate and useful information about MAT in a way that is most acceptable and useful to CJ addiction treatment referrers and policymakers. This goal was accomplished through a thorough review of the literature and existing trainings and by gathering stakeholders' suggestions for improvement and consolidation of the training material.

Phase III

This Phase involved careful coordination between the investigators and TRI's senior programmer to develop an online training that: (1) would take less than 2 hours to complete; (2) could be self-administration by non-technically savvy individuals with limited computer experience; (3) could generate immediate corrective feedback on comprehension assessments; and (4) could transfer de-identified data to TRI's secure server in a highly encrypted manner. In addition, we identified an attention control training and prepared it for delivery as part of the randomized testing process described below.

During this stage, it became apparent that an important modification to the MAT training was necessary. Beta testing revealed that the inclusion of all desired information about the various medications used to treat addiction to alcohol and opioids exceeded the 2-hour time constraints established for the training. Following initial presentation of the training at TRI (attended by TRI's scientists, administrators and research associates), it was decided that extending the length of the training beyond the 2-hour period would very likely reduce uptake by the professionals we were targeting for the training. After careful consideration, we made the decision to narrow the training's focus to opioid addiction. The streamlining would minimize the time demands on trainees while still attending to the growing problem of opioid addiction in criminal justice populations. Moreover, a training that attempts to increase awareness and to reduce misperceptions and negative attitudes towards MAT is likely to have the most impact when it targets those medications that have historically encountered the most obstacles to their adoption (i.e., agonist and other MATs to treat opioid addiction). Beta testing resulted in the finalization of this more focused training.

The goal of Phase III was to develop a 2-hour training on MAT. Originally this training was to include information about medications used in the treatment of both alcohol and opioid addiction. In the sense that we narrowed the focus of the training to medications used for treating opioid addiction only, this goal was not achieved. However, we believe that streamlining the training has improved its ability to convey important information about opioid agonist and antagonist medications that would have been lost or confused with information on medications used to treat alcoholism had we continued to include these latter medications in the training. As stated above, extending the training beyond the two-hour time period in order to cover all the material would also likely have reduced uptake. Therefore, having not accomplished this pre-determined goal is not viewed by the investigators in a negative light.

Phase IV

We tested whether, and to what extent, the training impacted treatment referrers' and policymakers' knowledge, attitudes, and (as appropriate) willingness to refer to MAT. This involved a randomized control trial comparing the outcomes of the MAT training to those of

an attention control training with 45 treatment referrers (23 participants in the Control condition and 22 participants in the MAT condition) serving a correctional population in the State of Pennsylvania. We also employed a pre-post design to assess the impact of the training with 16 decision-makers within the CJ system. In order to implement Phase IV, we received protocol approval from TRI's and collaborator's Institutional Review Board.

Recruiting Treatment Referrers

We sought to recruit a total of 50 treatment referrers from facilities in Pennsylvania operated by Community Education Centers (CEC) which is a provider of reentry, in-prison treatment, and jail/detention management services. We also sought to recruit a total of 30 treatment referrers/professionals from Public Health Management Corporation (PHMC) which provides clinical evaluation, client placement, case management and information management for inmates of the Philadelphia prison System.

The investigators gathered sample pools from the participating agencies that contained names, email addresses, and position titles of potential participants. Initial contact with these potential study participants was through their supervisor via agency-based email accounts. One week prior to initiation of this phase of the study, supervisors sent an email message to potential participants about an upcoming invitation from TRI to participate in the study. This message informed employees that the study was approved by their agency administrators and participation may occur on company time. Investigators crafted this message to ensure potential participants were informed that participation was completely voluntary.

One week later, investigators contacted these same employees via email. This message provided information about the study, contact information of the investigators, and a link to the online study located on TRI's secure server. Treatment referrers who chose to access the study were presented with TRI's standard consent form. The recruit provided consent to participate by "clicking" an acknowledgement that he/she has read and understood the consent form information and agrees to participate in the study.

Upon clicking this acknowledgement and agreeing to participate, the online program transferred participants to the study site where they were presented a set of basic demographic questions assessing individual characteristics that the literature has shown to be associated with knowledge and attitudes about MAT. The program presented participants with a set of baseline questions at this time assessing attitudes and willingness to refer appropriate individuals to MAT. Questions assessing knowledge of MAT were not presented at baseline in order to reduce the possibility that such items could reduce the effects of the training and influence responses to other baseline measures. Following completion of these items, the program randomly assigned participants to the MAT intervention or control condition.

Participants then commenced either the MAT training or the attention control training. Interspersed throughout the trainings were short "quizzes" that participants must respond to in order to progress through the trainings. Incorrect responses to quiz items resulted in corrective feedback that allowed trainees to correctly identify item responses.

Immediately following the trainings, all participants were presented with the post-test measures. Following completion of the post-training questions, participants received an Amazon.com gift code number redeemable for \$20. They were also reminded that they would receive a \$25 Amazon voucher (in the form of a gift code number that can be used for online purchases) for completion of a follow-up survey. In one month, they were contacted and requested to complete 1 month follow-up survey.

Recruiting Decision-makers

We used a pre-post design to test whether the training increased decision-makers' knowledge and attitudes toward MAT and their willingness to support policies that increase accessibility to MAT for those persons that could benefit from its use. We sought to recruit 25 decision-makers from CEC and PHMC. A decision-maker was purposefully and broadly defined as anyone who had the capacity, through his/her position, to make decisions about how treatment or referral mechanisms within his/her particular agency are implemented. Examples of decision-makers include administrators of substance abuse treatment agencies or supervisors of treatment programs, research coordinators that oversee research that is conducted with treatment programs within their agency, and administrators who determine reimbursement policies for treatment services. All decision-makers completed pre- and post-training measures as well as the MAT training in the same manner as described for the experimental group above.

Need for Additional Recruitment Sites

In the days following our initial email contact with CEC and PHMC treatment referrers and decision-makers, it became apparent that recruitment was not meeting expectations. In addition to follow-up recruitment emails to potential participants, investigators reached out to the administrators at these sites and requested that they inform their staff of the importance of participating in the study again. These additional appeals did little to increase recruitment and we ended involvement with these sites having achieved a 20% recruitment rate (24/120).

Investigators identified new recruitment sites within Pennsylvania. TRI's prior research experiences within Union, Snyder and Chester Counties helped to facilitate the additional recruitment of professionals from Chester County Probation and Treatment Court and the Union and Snyder Counties Probation and Drug Treatment Court. Investigators sought and received approval from the TRI IRB for the addition of these new study sites. We were also granted approval to increase the participant incentives from \$20 for post-training sessions and \$25 for follow-ups sessions to \$40 for post-training sessions and \$50 for follow-ups sessions to increase recruitment rates. These changes resulted in a higher recruitment rate at the new sites (45% recruitment rate [37/82]). The final sample consisted of 45 treatment referrers (23 participants in the attention control condition and 22 in the MAT condition) and 16 decision-makers serving correctional populations in Pennsylvania.

Recruitment goals were not met. Despite support from administrators at each of the recruitment sites, voluntary participation remained low. This was true even after adjusting the incentive payments. It is unclear if the lower than expected recruitment were a function of time constraints, personal opinions about the research topic that precluded participation, or a general lack of interest in participating.

Data Analysis

The primary hypothesis of the project was MAT trainees would have more knowledge and positive attitudes toward MAT and that MAT trainees will report a higher level of willingness to refer to MAT than participants who received the attention control training. The knowledge assessment (MAT-K) consisted of a 10 item multiple choice knowledge quiz on MAT. The assessment of willingness to refer to MAT (MAT-W) consisted of six items asking respondents to rate their future willingness to encourage dependent individuals to use the various medications, and medication in general, for the treatment of their addictions ($\alpha = .89$). The attitudes assessment was parsed into four subscales:

- 1) six items on the acceptability of MAT (MAT-Aa),
- 2) six items on beliefs about the effectiveness of MAT (MAT-Ae),
- 3) six items on whether or not MAT should be used more (MAT-Am) and
- 4) six general items on attitudes towards MAT (MAT-Ag)

The primary aim of the pilot study was to estimate effect sizes for intervention in influencing knowledge, attitudes and willingness. For the decision maker sample, we conducted t-tests and generated effect size estimates for d pre- and post-differences for each outcome. For treatment referrers, we conducted t-tests and generate effect size estimates for between-group (MAT vs. attention control training) differences on these outcomes at each follow-up time point.

Results – Decision-makers

Sixteen decision makers completed the post-training and 1 month follow-up evaluations. The decision-makers scored an average of 7.06 items correct ($SD=1.39$) on the knowledge quiz at the post-training evaluation compared to 6.81 items correct ($SD=1.42$) at the 1-month follow-up. This difference between time points ($t(15)=0.75$; $p=0.468$, $d=0.186$) was significant, indicating that the information was retained over time.

The internal consistency (Cronbach's alpha) of MAT items assessing respondents' willingness at baseline was 0.97. Willingness scores were significantly higher following the training than at baseline ($t(15)=4.64$; $p=0.0003$; $d=1.16$) but did not differ between the post-training and follow-up assessments ($t(15)=0.58$; $p=0.569$; $d=0.146$).

The internal consistency of MAT acceptability items (MAT-Aa) was 0.96 at baseline. Acceptability scores were significantly higher post-training than at baseline ($t(15)=2.91$; $p=0.011$; $d=0.726$), but did not differ between the post-training and follow-up assessments ($t(15)=0.29$; $p=0.779$; $d=0.071$).

The internal consistency of MAT effectiveness items (MAT-Ae) at baseline was 0.95. Effectiveness scores were significantly higher post-training than at baseline ($t(15)=3.88$; $p=0.002$; $d=0.972$) but did not differ between the post-training and follow-up assessments ($t(15)=0.00$; $p=1.00$; $d=0.00$).

The internal consistency of MAT items assessing whether or not MAT should be used more (MAT-Am) at baseline was 0.95. Scores were significantly higher post-training than at

baseline ($t(15)=3.14$; $p=0.007$; $d=0.786$) but did not differ between the post-training and follow-up assessments ($t(15)=0.22$; $p=0.826$; $d=0.056$).

The internal consistency of MAT items assessing general attitudes towards MAT (MAT-Ag) at baseline was 0.92. Scores tended to be higher post-training than at baseline ($t(15)=2.11$; $p=0.052$; $d=0.529$) but did not differ between the post-training and follow-up assessments ($t(15)=0.77$; $p=0.451$; $d=0.193$).

Results – Treatment Referrers

There were 23 participants in the Control condition and 22 participants in the MAT condition. As such, 45 participants completed the ‘post’-evaluation. Of those, 40 returned for the 1 month follow-up evaluation. Randomization to treatment and control conditions was effective; there were no between group differences on any of the demographic measures collected.

After the training (Control or MAT), on the MAT-K items, participants in the Control condition scored an average of 5.47 items correct ($SD=2.08$) and those in the MAT condition scored an average of 6.86 items correct ($SD=2.14$). This difference was statistically significant ($t(43)=2.20$; $p=0.034$, $d=0.657$). At the 1-month follow-up appointment, participants in the control condition scored an average of 5.95 items correct ($SD=2.31$) and those in the MAT condition scored an average of 6.58 items correct ($SD=1.95$). Difference was not significant ($t(38)=0.92$; $p=0.363$, $d=0.295$).

The internal consistency for MAT items assessing respondents’ future willingness to encourage dependent individuals to use the various medications (MAT-W) at baseline was 0.89. There was a significant difference in the MAT-W total score between groups at the post-training favoring the MAT group ($t(37)=3.37$; $p=0.002$; $d=1.08$) but no significant difference between groups at the one-month follow up ($t(38)=1.03$; $p=0.308$; $d=0.326$).

Due to non-response, the MAT-Aa subscale was reduced to a single item indicating respondents’ acceptability, in general, to the use of medications to treat addiction. There was a significant difference in this items score between groups at post-training favoring the MAT group ($t(41)=3.11$; $p=0.003$; $d=0.945$) but no significant difference between groups at one-month follow up ($t(37)=1.51$; $p=0.141$; $d=0.476$).

Due to non-response, data from the MAT-Ae subscale was not analyzed.

The internal consistency for MAT items assessing whether or not MAT should be used more (MAT-Am) at baseline was 0.89. There was a significant difference in the MAT-Aa total score between groups at post-training favoring the MAT group ($t(41)=3.23$; $p=0.002$; $d=0.988$) but no significant difference between groups at one-month follow up ($t(38)=1.62$; $p=0.113$; $d=0.511$).

The internal consistency for MAT items assessing general attitudes towards MAT (MAT-Ag) at baseline was 0.75. There was a significant difference in the MAT-Aa total score between groups at post-training favoring the MAT group ($t(41)=3.23$; $p=0.002$; $d=0.983$) but no

significant difference between groups at one-month follow up ($t(38)=1.35$; $p=0.186$; $d=0.425$).

In sum, the results from testing the efficacy of the MAT training with both treatment referrers and decision-makers indicate that the training does improve immediate perceptions of MAT. The training increased scores on knowledge assessments and improved scores on assessments measuring the acceptability of MAT to respondents and their willingness to refer to MAT immediately following training, often demonstrating large effect sizes. These gains were maintained among decision makers but not treatment referrers at the one-month follow-up assessment.

Phase V

During this stage, we evaluated our overall study implementation experience along with the results of trainee feedback. As discussed, we initially had problems recruiting individuals for participation in the study despite having the overall backing of key organizational personnel. The addition of new sites and the increase in remuneration that were implemented during the second wave of recruitment resulted in a substantially improved recruitment rate. This suggests that any future testing of the training in a more fully powered RCT would require careful consideration of the number of sites to include as well as sufficient budgeting for higher remuneration rates.

In terms of trainee feedback, all participants (i.e., treatment referrers in both the MAT and control group and the decision makers) were presented with an open-ended question as part of the online survey immediately following the training they had received. This question asked if participants had any comments regarding the training and its content. Participants were encouraged to write freely and reminded that all answers are confidential. We received a total of ten responses to this item from participants who had received the MAT training. Overall, the responses were uniformly positive with regards to the training process and content. We received only one response from individuals in the attention control group which reflected a negative attitude toward MAT.

The investigators' experiences implementing this pilot study, the results of the data analyses, and the comments from participants suggest that the newly developed MAT training may be a useful tool for criminal justice professionals to raise their awareness and understanding of addiction and MAT, reduce their misperceptions about addiction and MAT, and increase willingness to refer appropriate persons to MAT for addiction. This study also provides valuable lessons to guide the development of a fully-powered trial to examine the efficacy of the MAT training. Specifically, the future trial should:

1. Employ recruitment incentives that are commensurate with the target population.
2. Include multiples sites to ensure an adequate sample size and a more representative sample.

In addition, future work could focus on the development of similar trainings for medications used to treat addiction to other substances including alcohol.

18. Extent of Clinical Activities Initiated and Completed. Items 18(A) and 18(B) should be completed for all research projects. If the project was restricted to secondary analysis of clinical data or data analysis of clinical research, then responses to 18(A) and 18(B) should be “No.”

18(A) Did you initiate a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

 X Yes
 No

18(B) Did you complete a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

 X Yes
 No

If “Yes” to either 18(A) or 18(B), items 18(C) – (F) must also be completed. (Do NOT complete 18(C-F) if 18(A) and 18(B) are both “No.”)

18(C) How many hospital and health care professionals were involved in the research project?

 0 Number of hospital and health care professionals involved in the research project

18(D) How many subjects were included in the study compared to targeted goals?

 105 Number of subjects originally targeted to be included in the study
 82 Number of subjects enrolled in the study

Note: Studies that fall dramatically short on recruitment are encouraged to provide the details of their recruitment efforts in Item 17, Progress in Achieving Research Goals, Objectives and Aims. For example, the number of eligible subjects approached, the number that refused to participate and the reasons for refusal. Without this information it is difficult to discern whether eligibility criteria were too restrictive or the study simply did not appeal to subjects.

18(E) How many subjects were enrolled in the study by gender, ethnicity and race?

Gender:
 36 Males
 46 Females
 0 Unknown

Ethnicity:
 4 Latinos or Hispanics
 76 Not Latinos or Hispanics

2 Unknown

Race:

 0 American Indian or Alaska Native

 0 Asian

 12 Blacks or African American

 0 Native Hawaiian or Other Pacific Islander

 66 White

 3 Other, specify: unspecified

 1 Unknown

18(F) Where was the research study conducted? (List the county where the research study was conducted. If the treatment, prevention and diagnostic tests were offered in more than one county, list all of the counties where the research study was conducted.)

United States

19. Human Embryonic Stem Cell Research. Item 19(A) should be completed for all research projects. If the research project involved human embryonic stem cells, items 19(B) and 19(C) must also be completed.

19(A) Did this project involve, in any capacity, human embryonic stem cells?

 Yes

 X No

19(B) Were these stem cell lines NIH-approved lines that were derived outside of Pennsylvania?

 Yes

 No

19(C) Please describe how this project involved human embryonic stem cells:

20. Articles Submitted to Peer-Reviewed Publications.

20(A) Identify all publications that resulted from the research performed during the funding period and that have been submitted to peer-reviewed publications. Do not list journal abstracts or presentations at professional meetings; abstract and meeting presentations should be listed at the end of item 17. **Include only those publications that acknowledge the Pennsylvania Department of Health as a funding source** (as required in the grant agreement). List the title of the journal article, the authors, the name of the peer-reviewed publication, the month and year when it was submitted, and the status of publication (submitted for publication, accepted for publication or published.). Submit an electronic copy of each publication or paper submitted for publication, listed in the table, in a PDF

version 5.0.5 (or greater) format, 1,200 dpi. Filenames for each publication should include the number of the research project, the last name of the PI, and an abbreviated title of the publication. For example, if you submit two publications for Smith (PI for Project 01), one publication for Zhang (PI for Project 03), and one publication for Bates (PI for Project 04), the filenames would be:

- Project 01 – Smith – Three cases of isolated
- Project 01 – Smith – Investigation of NEB1 deletions
- Project 03 – Zhang – Molecular profiling of aromatase
- Project 04 – Bates – Neonatal intensive care

If the publication is not available electronically, provide 5 paper copies of the publication.

Note: The grant agreement requires that recipients acknowledge the Pennsylvania Department of Health funding in all publications. Please ensure that all publications listed acknowledge the Department of Health funding. If a publication does not acknowledge the funding from the Commonwealth, do not list the publication.

Title of Journal Article:	Authors:	Name of Peer-reviewed Publication:	Month and Year Submitted:	Publication Status (check appropriate box below):
1.None				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published

20(B) Based on this project, are you planning to submit articles to peer-reviewed publications in the future?

Yes X No _____

If yes, please describe your plans:

We are currently preparing a manuscript on the results of the study. We anticipate submitting the manuscript to a peer-reviewed publication within the next few months.

21. Changes in Outcome, Impact and Effectiveness Attributable to the Research Project.

Describe the outcome, impact, and effectiveness of the research project by summarizing its impact on the incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of outcome, impact or effectiveness of the research project. If there were no changes, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. DO NOT DELETE THESE INSTRUCTIONS. There is no limit to the length of your response.

None

22. Major Discoveries, New Drugs, and New Approaches for Prevention Diagnosis and Treatment. Describe major discoveries, new drugs, and new approaches for prevention, diagnosis and treatment that are attributable to the completed research project. If there were no major discoveries, drugs or approaches, insert "None"; do not use "Not applicable." Responses must be single-spaced below, and no smaller than 12-point type. **DO NOT DELETE THESE INSTRUCTIONS.** There is no limit to the length of your response.

None

23. Inventions, Patents and Commercial Development Opportunities.

23(A) Were any inventions, which may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this health research grant? Yes _____ No X

If "Yes" to 23(A), complete items a – g below for each invention. (Do NOT complete items a - g if 23(A) is "No.")

- a. Title of Invention:
- b. Name of Inventor(s):
- c. Technical Description of Invention (describe nature, purpose, operation and physical, chemical, biological or electrical characteristics of the invention):
- d. Was a patent filed for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____

If yes, indicate date patent was filed:

- e. Was a patent issued for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____
If yes, indicate number of patent, title and date issued:
Patent number:
Title of patent:
Date issued:
- f. Were any licenses granted for the patent obtained as a result of work performed under this health research grant? Yes _____ No _____

If yes, how many licenses were granted? _____

- g. Were any commercial development activities taken to develop the invention into a commercial product or service for manufacture or sale? Yes _____ No _____

If yes, describe the commercial development activities:

23(B) Based on the results of this project, are you planning to file for any licenses or patents, or undertake any commercial development opportunities in the future?

Yes _____ No X _____

If yes, please describe your plans:

24. Key Investigator Qualifications. Briefly describe the education, research interests and experience and professional commitments of the Principal Investigator and all other key investigators. In place of narrative you may insert the NIH biosketch form here; however, please limit each biosketch to 1-2 pages. *For Nonformula grants only – include information for only those key investigators whose biosketches were not included in the original grant application.*

BIOGRAPHICAL SKETCH			
NAME Matejkowski, Jason Creed		POSITION TITLE Assistant Professor	
eRA COMMONS USER NAME (credential, e.g., agency login) jmatejkowski			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Illinois, Urbana-Champaign	B.S.	08/94	Psychology
University of Illinois, Urbana-Champaign	M.S.W.	12/02	Social Work
University of Pennsylvania	Ph.D.	08/10	Social Welfare

A. Positions and Honors

Positions and Employment

1998-2002	Milieu Coordinator, The Pavilion Residential Treatment Center, Champaign, IL
2002-2003	Program Development & Program Evaluation Coordinator, Prairie Center Health Systems, Inc., Urbana, IL
2003-2005	Research Associate & Program Manager, Indiana Criminal Justice Institute, Indianapolis, IN
2005-2010	Research Fellow, University of Pennsylvania School of Social Policy & Practice, Philadelphia, PA
2006	Database Consultant, Program for Religion & Social Policy Research at the University of Pennsylvania School of Social Policy & Practice, Philadelphia, PA
2008-2009	Instructor, University of Pennsylvania School of Social Policy & Practice, Philadelphia, PA
2009-2010	Research Associate, Pathways to Housing, Philadelphia, PA
2010-2012	Associate Research Scientist, Treatment Research Institute, Philadelphia, PA
2012-	Assistant Professor, University of Kansas, School of Social Welfare, Lawrence, KS

Other Experience and Professional Memberships

2002-	Member, National Association of Social Workers
2008-	Member, Society for Social Work and Research
2008-	Member, American Society of Criminology
2002	Chair, Birth-to-Six Panel, United Way of Champaign County; Champaign, IL
2003-2005	Member, Indiana Sex Offender Management and Monitoring Program; Indianapolis, IN
2004-2005	Member, Indiana Offender Reintegration Project; Indianapolis, IN
2006-2007	Member, Philadelphia Crisis Intervention Team (CIT) Coalition: Program and Curriculum Committees; Philadelphia, PA
2006-2008	Elected Student Representative, Graduate Group Steering Committee, School of Social Policy & Practice; Philadelphia, PA
2008	Peer Reviewer, GAPSA-Provost Interdisciplinary Innovation Award Selection Committee, University of Pennsylvania; Philadelphia PA

- 2008-2011 Peer Reviewer, Journal of Behavioral Health Services & Research (2008-2009), Archives of General Psychiatry (2010), International Journal of Mental Health Systems, Criminal Justice Review (2010)
- 2009-2010 Peer Reviewer, Justice and Mental Health Collaboration Program, U.S. Department of Justice

Honors

- 2002 Phi Kappa Phi National Honor Society
- 2002 Alpha Delta Mu National Social Work Honor Society
- 2008 Lazarus-Goldman Award for Outstanding Ph.D. Student

B. Selected Peer-reviewed Publications

1. Matejkowski, J., Cullen, S., and Solomon, P. (2008). Characteristics of persons with severe mental illness who have been incarcerated for murder. *Journal of the American Academy of Psychiatry and the Law* 36 74-86
2. Matejkowski, J. and Draine, J. (2009). Investigating the impact of Housing First on ACT fidelity. *Community Mental Health Journal* 45 6-11
3. Stanhope, V. and Matejkowski, J. (2010). Understanding the role of individual consumer-provider relationships within assertive community treatment. *Community Mental Health Journal* 46, 309-318
4. Cullen, S., Matejkowski, J., and Solomon, P. (2010). Maternal mental health and children's health care use among Medicaid and SCHIP recipients. *The Journal of Behavioral Health Services & Research* 37, 443-460
5. Matejkowski, J., Caplan, J., and Cullen, S. (2010). The impact of severe mental illness on parole decisions: Social integration within a prison setting. *Criminal Justice & Behavior* 37, 1005-1029
6. Weinstein, L., Henwood, B., Matejkowski, J. and Santana, A. (2011). Moving from street to home: Health status of entrants to a Housing First program. *Journal of Primary Care and Community Health* 2, 11-15
7. Wong, Y.I., Matejkowski, J. and Lee, S. (2011). Social integration of people with serious mental illness: Network transactions and satisfaction. *The Journal of Behavioral Health Services & Research* 38, 51-67
8. Matejkowski, J., McCarthy, K., and Draine, J. (2011). Personal norm of reciprocity among mental health service users: Conceptual development and measurement. *Psychiatric Rehabilitation Journal* 34, 208-219
9. Thomas, K., Dichter, M. and Matejkowski, J. (2011) Intimate vs. non-intimate murder: A comparison of offender and situational characteristics. *Homicide Studies* 15, 291-311
10. Matejkowski, J., Draine, J., Solomon, P., and Salzer, M. (2011). Mental illness, criminal risk factors and parole release decisions. *Behavioral Sciences & the Law* 29, 528-553
11. Matejkowski, J. (2011). Exploring the moderating effects of mental illness on parole release decisions. *Federal Probation* 75, 19-26
12. Matejkowski, J., Festinger, D., Benishek, L., and Dugosh, K. (2011). Matching consequences to behavior: Implications of failing to distinguish between noncompliance and nonresponsivity. *International Journal of Law and Psychiatry* 34, 269-274
13. Lee, S. and Matejkowski, J. (In Press). Mental health service utilization among noncitizens in the United States: Findings from the National Latino and Asian American Study. *Administration and Policy in Mental Health and Mental Health Services Research*

BIOGRAPHICAL SKETCH			
NAME David S. Festinger Ph.D.		POSITION TITLE Director, Section on Law & Ethics Research	
eRA COMMONS USER NAME DFESTINGER			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Rutgers University, Newark, NJ	B.A.	05/90	Psychology
Arcadia University, Glenside, PA	M.A.	05/93	Counseling Psychology
Medical College of Pennsylvania and Hahnemann University; Philadelphia, PA	M.A.	05/95	Clinical Psychology
Eastern Pennsylvania Psychiatric Institute, Philadelphia, PA	Intern	05/98	Clinical & Health Psychology
Hahnemann University of the Health Sciences, Philadelphia, PA	Ph.D.	06/98	Clinical Psychology

A. Positions and Honors

Positions and Employment

- 1994-1998 Director of Research, Institute of Addictive Behaviors, MCP Hahnemann University
- 1998-1999 Investigator, Institute for Addictive Disorders, MCP
- 1998-2003 Behavioral Scientist, DeltaMetrics
- 1999-2007 Senior Scientist, Treatment Research Institute at the University of Pennsylvania
- 2007-present Director, Section on Law and Ethics Research, Treatment Research Institute

Other Experience and Professional Memberships

- 1998-1999 Assistant Professor of Psychiatry (Tenure track), MCP Hahnemann University A
- 2003-present Adjunct Assistant Professor of Clinical & Health Psychology, Drexel University
- 2005-present Adjunct Assistant Professor of Psychiatry, University of Pennsylvania School of Medicine
- 2003-2006 Human Subjects Research Committee, College on Problems of Drug Dependence
- 2004-present Ad Hoc Grant Reviewer, Research Ethics Study Section, NIH CSR ZRG1 HOP-E (50)
- 2004 Ad Hoc Grant Reviewer, Young Offender Reentry Program, SAMHSA
- 2006-present Awards Chair & member of the Executive Committee: Division 28, APA
- 2006-present Licensed Psychologist, Pennsylvania (#PS-016043)

Honors

- 2000 College on Problems of Drug Dependence Early Career Investigator Award

B. Publications (15 selected)

1. Kirby, K.C., Marlowe, D.B., Festinger, D. S., Lamb, R.J. & Platt, J.J. (1998). Schedule of voucher delivery influences initiation of cocaine abstinence. *Journal of Consulting and Clinical Psychology*, 66(5), 761-767.
2. Kirby, K.C., Marlowe, D.B., Festinger, D. S., & LaMonaca, V. (1999). Community reinforcement training for family and significant others of drug abusers. *Drug and Alcohol Dependence*, 56, 85-96.
3. Festinger, D. S., Marlowe, D.B., Lee, P.A., Kirby, K.C., Bovasso, G., & McLellan, A.T., (2002). Status hearings in drug court: When more is less and less is more. *Drug and Alcohol Dependence*, 68,151-157.
4. Marlowe, D. B., Kirby, K. C., Festinger, D. S., Merikle, E.P., Tran, G.Q., & Platt, J. J. (2003). Day treatment for cocaine dependence: Incremental utility over outpatient counseling and voucher incentives. *Addictive Behaviors*, 28, 387-398.
5. Festinger, D. S., Marlowe, D.B., Croft, J. R., Dugosh, K. L., Mastro, N. K., Lee, P.A., DeMatteo, D. S., & Patapis, N. S. (2005). Do Research Payments Precipitate Drug Use or Coerce Participation? *Drug and Alcohol Dependence*, 78, (3), 275-281.
6. Marlowe, D. B., Festinger, D. S., Lee, P. A., Dugosh, K. L., & Benasutti, K. M. (2006). Matching judicial supervision to clients' risk status in drug court. *Crime & Delinquency*, 52, 52-76. PMID: PMC2174271.
7. Festinger, D. S., Marlowe, D. B., Dugosh, K. L., Croft, J. R., & Arabia, P. L. (2008). Higher magnitude cash payments improve research follow-up rates without increasing drug use or perceived coercion. *Drug & Alcohol Dependence*, 96, 128-135. PMID: PMC2475801.
8. Marlowe, D. B., Festinger, D. S., Arabia, P. L., Dugosh, K. L., Benasutti, K. M., Croft, J. R., & McKay, J. R. (2008). Adaptive interventions in drug court: A pilot experiment. *Criminal Justice Review*. 33(3), 343-360. PMID: PMC2735275.
9. 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 pre-adjudication drug court. *Journal of Applied Behavioral Analysis*, 41, 565-577. PMID: PMC2606594.
10. Festinger, D. S., Marlowe, D. B., Croft, J. R., Dugosh, K. L., Arabia, P. L., & Benasutti, K. M. (2009). Monetary Incentives Improve Recall of Research Consent Information: It Pays to Remember. *Experimental and Clinical Psychopharmacology*, 17(2), 99-104. PMID: PMC3218798.
11. Marlowe, D. B., Festinger, D.S., Dugosh, K. L., Caron, A., Podkopacz, M. R., & Clements, N. (2011). Targeting Dispositions for Drug-Involved Offenders: A Field Trial of the Risk and Needs Triage (RANT)TM. *Journal of Criminal Justice*, 39(3), 253-260.
12. Mericle A.A., Belenko, S., & Festinger, D.S. (2011) Detection, advice, and referral to services (DARTS) procedures among clients with public defenders. *Substance Use and Misuse*. *Substance Use and Misuse*, 46(14), 1734-1744.
13. Festinger, D.S., Dugosh, K. L. (2012). Paying Substance Abusers in Research Studies: Where Does the Money Go? *American Journal of Drug and Alcohol Abuse*, 38(1), 43-48.
14. Festinger, D.S., Dugosh, K.L., Metzger, D.S., & Marlowe, D.B. (2012). The prevalence of HIV risk behaviors among felony drug court clients. *Drug Court Review*, 8(1), 131-146.
15. Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Benasutti, K.M., Fox, G., & Croft, J.R. (2012). Adaptive Programming Improves Outcomes in Drug Court: An Experimental Trial. *Criminal Justice and Behavior*, 39(4), 514-532. PMID: PMC3424518.

BIOGRAPHICAL SKETCH

NAME Karen Leggett Dugosh		POSITION TITLE Research Scientist II	
eRA COMMONS USER NAME kdugosh			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Gettysburg College, Gettysburg, PA	B.A.	05/93	Psychology
The University of Texas at Arlington, Arlington, TX	M.S.	12/97	Experimental Psychology
The University of Texas at Arlington, Arlington, TX	Ph.D.	05/01	Experimental Psychology

A. Positions and Honors.

Positions:

- 1995-2000 Graduate Research/Teaching Assist., The University of Texas at Arlington, Arlington, TX
- 2000-2001 Graduate Research/Teaching Assoc., The University of Texas at Arlington, Arlington, TX
- 2001-2002 Research Associate, Deltametrics, Philadelphia, PA
- 2002-2004 Research Analyst, Treatment Research Institute, Philadelphia, PA
- 2004-2010 Quantitative Psychologist, Treatment Research Institute, Philadelphia, PA
- 2010-present Research Scientist, Level II, Treatment Research Institute, Philadelphia, PA

Honors:

- 1999 Department of Psychology Outstanding Graduate Student Research Award
- 1999 The University of Texas at Arlington Academic Excellence Award
- 2000 The University of Texas at Arlington Academic Excellence Award

B. Publications (15 selected)

1. Carise, D., Gurel, O., McLellan, A. T., Dugosh, K. L., & Kendig, C. (2005). Getting patients the services they need using a computer-assisted system for patient assessment and referral—CASPAR. *Drug and Alcohol Dependence*, 80(2), 177-189. PMID: PMC2796105.
2. Kirby, K. C., Benishek, L. A., Dugosh, K. L., Kerwin, M. (2006). Substance abuse treatment providers' beliefs and objections regarding contingency management: Implications for dissemination. *Drug and Alcohol Dependence*, 85, 19-27.
3. Carise, D. Dugosh, K., McLellan, A. T., Camilleri, A., Woody, G., & Lynch, K. G. (2007). Prescription OxyContin abuse among patients entering substance abuse treatment. *American Journal of Psychiatry*, 164(11), 1-7. PMID: PMC2785002.

4. Festinger, D. S., Marlowe, D. B., Dugosh, K. L., Croft, J. R., & Arabia, P. L. (2008). Higher magnitude cash payments improve research follow-up rates without increasing drug use or perceived coercion. *Drug & Alcohol Dependence*, 96, 128-135. PMID: PMC2475801.
5. 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 pre-adjudication drug court. *Journal of Applied Behavior Analysis*, 41(4), 565-577. PMID: PMC2606594.
6. Woody, G. E., Poole, S. A., Subramaniam, G., Dugosh, K. L., Bogenschutx, M., Abbot, P., Patkar, A. Publicker, M, McCain, K., Potter, J. S., Forman, R., Vetter, V., McNicholas, L., Blaine, J., Lynch, K. G., & Fudala, P. (2008). Extended vs. short-term Buprenorphine-Naloxone for treatment of opioid-addicted youth. *Journal of the American Medical Association*, 300(17), 2003-2011. PMID: PMC2610690.
7. Cacciola, J. S., Dugosh, K. L., Camilleri, A. (2009). Treatment history: Relationship to treatment outcomes. *Substance Use and Misuse*, 44(3), 305-321.
8. Alterman A. I., Cacciola, J. S., Ivey M. A., Coviello, D. M., Lynch, K. G., Dugosh K. L., & Habing, B. (2010). Relationship of mental health and illness in substance abuse patients. *Personality and Individual Differences*, 49, 880–884. PMID: PMC2967039.
9. Carpenedo C. M., Kirby K. C., Dugosh K. L., Rosenwasser B. J., & Thompson, D. L. (2010). Extended voucher-based reinforcement therapy for long-term drug abstinence. *American Journal of Health Behavior*, 34(6), 776-787. PMID: PMC3085862.
10. Dugosh, K. L., Festinger, D. S., Croft, J. R., & Marlowe, D. B. (2010). Measuring Coercion to Participate in Research within a Doubly Vulnerable Population. *Journal of Empirical Research on Human Research Ethics*, 5(1), 93-102. PMID: PMC3219039.
11. Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Caron, A., Podkopacz, M.R., & Clements, N. (2011). Targeting dispositions for drug-involved offenders: A field trial of the Risk and Needs Triage (RANT)TM. *Journal of Criminal Justice*, 39(3), 253-260.
12. Haley, S.J., Dugosh, K.L., Lynch, K.G. (2011). Performance contracting to engage in detoxification-only patients into continued rehabilitation. *Journal of Substance Abuse Treatment*, 40(2), 123-131.
13. Festinger, D.S., Dugosh, K.L., Metzger, D.S., & Marlowe, D.B. (2012). The prevalence of HIV risk behaviors among felony drug court clients. *Drug Court Review*, 8(1), 131-146.
14. Kirby, K.C., Carpenedo, C.M., Stitzer, M.L., Dugosh, K.L., Petry, N.M., Roll, J.M., Saladin, M.E., Sillo, G.R. (2012). Is exposure to an effective contingency management intervention associated with more positive provider beliefs? *Journal of Substance Abuse Treatment*, 42(4) 356-365. PMID: PMC3319812.
15. Klein A.A., Slaymaker, V.J., Dugosh K.L., & McKay, J.R. (2012). Computerized continuing care support for alcohol and drug dependence: A preliminary analysis of usage and outcomes. *Journal of Substance Abuse Treatment*, 42(1) 25-34.