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Interventions for incarcerated adults with opioid use disorder in the United States: A systematic review with a focus on social determinants of health [↗](#)

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ABSTRACT

Incarceration poses significant health risks for people involved in the criminal justice system. As the world's leader in incarceration, the United States incarcerated population is at higher risk for infectious diseases, mental illness, and substance use disorder. Previous studies indicate that the mortality rate for people coming out of prison is almost 13 times higher than that of the general population; opioids contribute to nearly 1 in 8 post-release fatalities overall, and almost half of all overdose deaths. Further, Social Determinants of Health (SDOH) and health care are often interrelated difficulties and conflicting priorities for formerly incarcerated people. Given the interplay of incarceration, opioid use disorder (OUD), and social determinants of health, evidence is urgently needed on intersectional interventions to improve outcomes for this vulnerable group. We will conduct a systematic review of existing peer-reviewed literature published in the last 5 years that describe interventions for justice-involved people with OUD through a social-determinants lens. The purpose of this systematic review is to 1) identify interventions for opioid use disorder that are implemented as part of criminal justice system involvement, 2) determine which interventions also include a social determinants component, and 3) note any common elements between interventions with significant outcomes.

EXTERNAL LINK

<https://doi.org/10.1371/journal.pone.0227968>

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

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GUIDELINES

Inclusion criteria:

- Published in last 5 years
- Published in English
- Full article text available
- Adults 19 years and older
- Interventions implemented as part of involvement in the criminal justice system
- Interventions impact opiate use disorder outcomes (i.e., cannot measure only recidivism)
- Both pharmacological and non-pharma interventions

Exclusion criteria:

- Interventions not tested in the U.S. criminal justice system
- Interventions tested only among juveniles/in juvenile justice system
- Interventions that don't impact opiate use disorder-specific
- Interventions not implemented as part of involvement in the criminal justice system (i.e. only formerly incarcerated people offered x treatment)

Outcomes of interest:

- opioid-related mortality
- non-fatal overdose
- post-release opiate use (heroin, injection drugs, prescription drugs)
- treatment initiation during incarceration
- treatment initiation in community
- adherence to treatment post-release
- maintaining treatment post-release (i.e. keeping and attending appointments for medication treatment, continuous engagement)
- withdrawal symptoms

Aims:

- 1) identify interventions for opioid use disorder that are implemented as part of criminal justice system involvement
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Guidelines, criteria

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Identify articles

2 Conduct PubMed search

2.1 Use boolean term:

(substance use OR medically assisted treatment OR opioid OR drug) AND (incarceration OR prison OR reentry OR jail)

- 2.2 Apply filters to PubMed search:
 Publication dates: 5 years
 Species: Human
 Ages: 19+ years
 Languages: English
 Sort: Most recent
 Text availability: Full text
- 2.3 Record number of articles without and with filters. Download results file. Copy and paste into Excel file to screen titles.
- 3 Conduct ProQuest search
 - 3.1 Begin search using boolean term:
 (substance use OR medically assisted treatment OR opioid OR drug) AND (incarceration OR prison OR reentry OR jail)
 - 3.2 Record number of articles without and with filters. Apply filters to ProQuest:
 Limit to: Full text, peer-reviewed
 Document Title
 Language: English
 Manuscript type: all
 Publication dates: last 5 years
- 4 Conduct Google Scholar search
 - 4.1 Begin search using boolean:
 allintitle: ("substance use" OR "medically assisted treatment" OR opioid OR drug) AND (incarceration OR prison OR reentry OR jail)
 Limit to:
 published in English
 2014-2019
 - 4.2 Record number of articles without and with filters. Download results file. Copy and paste into Excel file to screen titles.

Title Screening

- 5 Create copy of Excel sheet with beginning download.
- 6 Sort Excel file by title and authors. Select "Delete Duplicates", then select "Title" and "Author" as duplication criteria.
- 7 Search titles for non-US studies. Considered non-US studies if alternative country name is in the title (i.e. Spanish prisons, in Malaysia). Code with "0-non-US".
- 8 Search titles for irrelevant content/content. "Relevance" is considered by inclusion criteria and if primary objectives of study within a title are consistent with the research question. For example, titles of articles pertaining to cardiac arrest are considered not relevant. Non-relevant studies were coded as "0-non-relevant".
- 9 Search titles for youth, adolescents, juvenile facilities. Titles containing the words "adolescent" or "youth" or "juvenile" described studies with target populations under 19 years old and thus do not fit and are coded as "0-Adolescent/Youth".
- 10 Search titles for non- interventional studies. Titles containing the words "surveillance", "survival analysis" "tool/measure validation", or any combination of words indicating that the study did not test the efficacy of a specific intervention are to be coded as "0-not intervention" or "0-epidemiological data".

- 11 Search titles for studies that do not investigate changes in the outcomes of interest, specified in the guidelines of this document. i.e. "**Correlation of Internet Use for Health Care Engagement Purposes and HIV Clinical Outcomes.**"

Abstract screening

- 12 Find and read each abstract.
- 13 Screen abstracts based on inclusion/exclusion criteria and outcomes of interest following steps 6-11 described in the Title Screening section. Code following the same schema in a separate column within the same Excel sheet. Record number of remaining publications.

Full article review

- 14 Download remaining articles into Mendeley. Read each full text.
- 15 Screen full text articles based on inclusion/exclusion criteria and outcomes of interest following steps 6-11 described in the Title Screening section. Additional screening for inclusion/exclusion criteria. Code following the same schema in a separate column within the same Excel sheet.
- 16 Count remaining number of articles. Also take a count of which articles considered for full review were excluded by reasons why they were excluded.

PRISMA items

- 17 Use recorded numbers of remaining publications at each stage to fill in PRISMA chart.
- 18 Complete PRISMA checklist.

Analysis

- 19 Create matrix with headings "author, target population, state, sample size, time of intervention, setting, study design, type of opioid intervention, comparator, SDH included, and outcomes.
- 19.1 All to be gleaned from each article by investigators. Outcomes recorded in the outcomes column should only include those described in the guidelines/criteria mentioned above. Not all studies will have all outcomes, record as applicable. Include p-values or other measures of statistical significance as applicable.
- 20 Summarize outcomes across articles identified. Describe trends, patterns in outcomes, significance, non-significance.



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