

REVIEW PROTOCOL FOR SUBSTANCE USE DISORDER AND THE WORKPLACE TOPIC AREA

Highlights

The purpose of this systematic review is to determine the quality of the evidence regarding the following:

- The effectiveness of strategies to improve the employment outcomes of those with substance use disorders (SUD). These interventions include efforts to assist those experiencing SUD with obtaining and maintaining employment.
- The effectiveness of strategies by employers to improve workplace efforts to support employees with SUD, including addressing safety concerns related to workplace injuries related to substance misuse and productivity loss.
- The effectiveness of the interventions that help contribute to building the behavioral health workforce to provide treatment for SUD and support recovery efforts for persons with SUD.

Only studies conducted using causal designs are reviewed for this topic area.

Introduction

The topic area for this evidence review protocol focuses on approaches to addressing the needs of persons with SUD broadly related to employment. The United States is in crisis as it attempts to address the wide-ranging and growing needs of persons with SUD, driven by both the opioid epidemic as well as the ongoing misuse of other drugs and alcohol.¹ This crisis has been exacerbated by the COVID-19 pandemic, with overdoses reaching an all-time high in 2021.²

Employment can help people with SUD stay on the path to recovery, but many struggle to find and keep jobs due to previous criminal system involvement, mental or physical health problems, or limited skills and work experience.³

The prevalence of SUD has also affected employers in several ways, including loss of productivity due to employee absenteeism and a shortage of workers due to previous justice-system involvement or drug-screening policies. In addition, employers are also concerned about safety and workplace injuries

¹ Vine, M., Staatz, C., Blyler, C., Berk, J. (2020). Mathematica. *The Role of the Workforce System in Addressing the Opioid Crisis: A Review of the Literature*. Chief Evaluation Office, U.S. Department of Labor.

² Martinson, K., McDonald, D., Berninger, A., and Wasserman, K. (2021). *Building Evidence-Based Strategies to Improve Employment Outcomes for Individuals with Substance Use Disorders*. OPRE Report 2020-171. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

³ Health Resources and Services Administration/National Center for Health Workforce Analysis; Substance Abuse and Mental Health Services Administration/Office of Policy, Planning, and Innovation. (2015). *National Projections of Supply and Demand for Behavioral Health Practitioners: 2013-2025*. Rockville, MD: National Center for Health Workforce Analysis.

related to substance misuse as well as the healthcare costs associated with SUD. Moreover, with the growing need for treatment services, a shortage of behavioral health workers who can help address the needs of people with SUD has emerged, particularly in rural and underserved communities.⁴

This topic area review aims to determine the quality of the existing evidence, with a focus on studies identified through the literature review and environmental scan conducted for two recent DOL projects: **Workers' Compensation and the Opioid Epidemic: State of the Field in Opioid Prescription Management** and **National Health Emergency Demonstration Grants to Address the Opioid Crisis**. The review focuses on these research questions:

- What is the quality of existing causal evidence on the effectiveness of employment-related services to help those with SUD improve outcomes related to employment, particularly earnings, job quality (wages and benefits) and public benefits receipt?
- What is the quality of existing causal evidence on the effectiveness of employer strategies to increase productivity (or prevent loss of productivity) and promote workplace health and safety? What is the quality of existing causal evidence on the effectiveness of creating workplace practices that aim to support workers experiencing SUD that help them maintain employment, minimize productivity losses, and enhance worker safety?
- What is the quality of existing causal evidence on the effectiveness of efforts to develop a well-trained and expanded behavioral health workforce that is equipped to address the health needs of those with SUD?

To assess the evidence of effectiveness of interventions to promote prevention of and recovery from substance use disorders, this review examines outcomes in the following domains:

- **Employment and earnings**, including but not limited to measures such as employment rate, tenure on the job, consecutive months employed, and wages
- **Employer benefits receipt**, including but not limited to nonwage compensation received from employers such as health insurance, vacation and sick leave, workers compensation, disability leave
- **Public benefit receipt**, including but not limited to unemployment insurance, TANF, SNAP, Medicaid/Medicare, Supplemental Security Income/Social Security Disability Insurance
- **Health and safety**, including but not limited to whether workers are free from illness or injury and are in a state of physical, mental, and social well-being in the workplace
- **Growth of behavioral health workforce**, including but not limited to an increase in workers in behavioral health, including peer support counselors.

Eligibility Criteria

For this topic area, CLEAR identified two literature reviews as the primary sources of studies for this area; both literature reviews covered topics related to SUD and employment. These literature reviews were conducted for the following projects: **Workers' Compensation and the Opioid Epidemic: State of**

⁴ Health Resources and Services Administration/National Center for Health Workforce Analysis; Substance Abuse and Mental Health Services Administration/Office of Policy, Planning, and Innovation. 2015. *National Projections of Supply and Demand for Behavioral Health Practitioners: 2013-2025*. Rockville, MD: National Center for Health Workforce Analysis.

the Field in Opioid Prescription Management and National Health Emergency Demonstration Grants to Address the Opioid Crisis: Literature Review(see Appendix A for details). Each study identified through the literature search is evaluated against a set of eligibility criteria:

1. **Does the research examine interventions designed to improve health, safety or employment outcomes for people with SUD?** To be eligible for review, the research must examine interventions that have a focus on SUD with specific health, safety or employment-related outcomes.
2. **Is it a study of effectiveness?** To be eligible for review, the research must use quantitative methods to assess the effectiveness of the intervention. Implementation studies that also include impact analyses, which received a high causal evidence rating from CLEAR, may be included if they meet the other eligibility criteria.
3. **Does the research examine a population of interest?** To be eligible for review, the research must examine the impact of the program or the effect of strategies on any group of adults (age 18 and over). This includes economically disadvantaged individuals, unemployed workers, under-employed workers, dislocated workers, incumbent workers, or individuals with disabilities.
4. **Does the analysis include at least one outcome of interest?** The goal of this review process is to determine the extent of the causal research evidence on the effectiveness of approaches to improve employment outcomes of those with SUD, to support workers with SUD, and to improve employer outcomes such as worker safety and avoidance of productivity loss. Also of interest is the extent of the causal research evidence on the effectiveness of approaches to expand the behavioral health workforce to address health needs of those with SUD.
5. **Was the research conducted in a relevant time and place?** All research must have been conducted using data from the United States, including the 50 states, the District of Columbia, territories, and tribal entities. The research must have been released between **2010-2013** and the most recent date covered by the literature searches.
6. **Was the study published in English?** All research studies must be published in English to be considered for inclusion in CLEAR.

The CLEAR team reviews studies that meet these criteria according to the CLEAR Causal Evidence Guidelines, Version 2.2. The full set of guidelines is available at <http://clear.dol.gov>.

Causal Evidence Guidelines Specific to the Topic Area

Attrition in randomized controlled trials (RCTs). The causal research in this topic area includes studies with both experimental and nonexperimental designs. CLEAR assesses the quality of evidence for RCTs using standards adapted from those of the Institute of Education Sciences' What Works Clearinghouse.⁵ RCTs can receive a high causal evidence rating if there are no obvious confounding factors to the design and if the level of attrition is low. This topic area uses a conservative attrition standard, based on the assumption that attrition in studies of employment and training programs might be linked to participants' labor market or educational outcomes. If CLEAR determines that an RCT cannot receive a high causal evidence rating, it uses the CLEAR nonexperimental causal evidence guidelines to review the study.

⁵ See <http://ies.ed.gov/ncee/wwc/InsidetheWWC.aspx> for details.

Control variables for nonexperimental designs. CLEAR causal evidence guidelines for nonexperimental studies were developed in consultation with a technical working group of methodological experts. The guidelines cover most nonexperimental designs, including fixed effects, difference in differences, instrumental variables, and regressions. Nonexperimental designs and RCTs with high attrition can receive a moderate causal evidence rating if they include adequate controls and can demonstrate or adjust for anticipating the intervention and confounding factors. To meet the requirements for a moderate causal evidence rating, nonexperimental studies and RCTs with high attrition in this topic area must include statistical controls for the following:

- Age
- Race/ethnicity
- Gender
- A pre-intervention measure of each outcome of interest. If the outcome of interest is the bold term, then the study must control for:
 - **Education.** Must control for pre-intervention (baseline) education level *and* socioeconomic status.⁶
 - **Employment.** Must control for employment rate *or* earnings *greater than one year before program participation*, to guard against the Ashenfelter dip (see CLEAR Causal Evidence Guidelines, Version 2.1, for a discussion).
 - **Earnings.** Must control for previous earnings *greater than one year before program participation*.
 - **Public benefit receipt.** Must measure pre-intervention (baseline) public benefit receipt *or* socioeconomic status.

Regression methods that incorporate a matching design, which uses statistical methods to create a comparison group that is as similar as possible to the group receiving the program, must match on each of the control variables listed above, or must include them as controls in the regression. This topic area can also include analyses conducted at the group level (an aggregation of entities, such as institutions, employers, or communities). For group analyses, it is typically necessary to include group-level controls for the same variables as in the individual analyses.

[NOTE for Reviewers: When creating the study profile, please use updated language when referring to individuals with substance use disorder even if the original article uses different language. This link can serve as a guide - Preferred Terms for Select Population Groups & Communities | Gateway to Health Communication | CDC. Feel free to reach out if you have any questions or need help!](#)

⁶ Another term for this is *degree of financial disadvantage*. This criterion is met if measures in at least two of three domains are included (income, benefit receipt, and education).

APPENDIX A: LITERATURE SEARCH

The literature for this topic area review was identified through two other DOL-funded literature reviews. These include [Workers' Compensation and the Opioid Epidemic: State of the Field in Opioid Prescription Management](#) and [National Health Emergency Demonstration Grants to Address the Opioid Crisis: Literature Review](#). The literature search was not conducted by CLEAR. The studies included in the review are listed below.

Aklin, Will M., Conrad J. Wong, Jacqueline Hampton, Dace S. Svikis, Maxine L. Stitzer, George E. Bigelow, and Kenneth Silverman. "A Therapeutic Workplace for the Long-Term Treatment of Drug Addiction and Unemployment: Eight-Year Outcomes of a Social Business Intervention." *Journal of Substance Abuse Treatment*, vol. 47, no. 5, 2014, pp. 329–338.

Cao, Dingcai, Jeanne C. Marsh, Hee-Choon Shin, and Christina M. Andrews. "Improving Health and Social Outcomes with Targeted Services in Comprehensive Substance Abuse Treatment." *The American Journal of Drug and Alcohol Abuse*, vol. 37, 2011, pp. 250–258.

Center for Substance Abuse Treatment. "Clinical Supervision and Professional Development of the Substance Abuse Counselor." Treatment Improvement Protocol (TIP) Series 52. HHS Publication No. (SMA) 144435. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2009.

Coviello, Donna M., Dave A. Zanis, Susan A. Wesnoski, and Sarah W. Domis. "An Integrated Drug Counseling and Employment Intervention for Methadone Clients." *Journal of Psychoactive Drugs*, vol. 41, no. 2, 2009, pp. 189–197.

Evans, Elizabeth, Yih-Ing Hser, and David Huang. "Employment Services Utilization and Outcomes Among Substance Abusing Offenders Participating in California's Proposition 36 Drug Treatment Initiative." *Journal of Behavioral Health Services & Research*, vol. 37, no. 4, 2010, pp. 461–476.

Foley, K., D. Pallas, A. A. Forcehimes, J. M. Houck, M. P. Bogenschutz, L. Keyser-Marcus, and D. Svikis. "Effect of Job Skills Training on Employment and Job Seeking Behaviors in an American Indian Substance Abuse Treatment Sample." *Journal of Vocational Rehabilitation*, vol. 33, no. 3, 2010, pp. 181–192.

Hall, Sharon M., Peter Loeb, Joseph Norton, and Ray Yang. "Improving Vocational Placement in Drug Treatment Clients: A Pilot Study." *Addictive Behaviors*, vol. 2, 1977, pp. 227–234.

Hamdi, Nayla R., Michael Levy, William B. Jaffee, Steven M. Chisholm, and Roger D. Weiss. "Implementing an Adapted Version of the Job Seekers' Workshop in a Residential Program for Patients with Substance Use Disorders." *Journal of Addiction Medicine*, vol. 5, no. 2, 2011, pp. 148–152.

Jason, L. A., B. D. Olson, J. R. Ferrari, and A. T. Lo Sasso. "Communal Housing Settings Enhance Substance Abuse Recovery." *American Journal of Public Health*, vol. 96, no. 10, 2006, pp. 1727–1729.

Kidorf, Michael, Johanna R. Hollander, Van L. King, and Robert K. Brooner. "Increasing Employment of Opioid Dependent Outpatients: an Intensive Behavioral Intervention." *Drug and Alcohol Dependence*, vol. 50, 1998, pp. 73–80.

Lones, Carrie E., Gary R. Bond, Mark P. McGovern, Kathryn Carr, Teresa Leckron-Myers, Tim Hartnett, and Deborah R. Becker. "Individual Placement and Support (IPS) for Methadone Maintenance Therapy Patients: A Pilot Randomized Controlled Trial." *Administration and Policy in Mental Health*, vol. 44, no. 3, 2017, pp. 359–364.

Magura, Stephen, Laura Blankertz, Elizabeth M. Madison, Ellen Friedman, and Augustin Gomez. "An Innovative Job Placement Model for Unemployed Methadone Patients: A Randomized Clinical Trial." *Substance Use & Misuse*, vol. 42, no. 5, 2007, pp. 811–828.

Morgenstern, Jon, Aaron Hogue, Sarah Dauber, Christopher Dasaro, and James R. McKay. "Does Coordinated Care Management Improve Employment for Substance-Using Welfare Recipients?" *Journal of Studies on Alcohol & Drugs*, vol. 70, no. 6, 2009a, pp. 955–963.

Morgenstern, Jon, Charles J. Neighbors, Alexis Kuerbis, Annette Riordan, Kimberly A. Blanchard, Katharine H. McVeigh, Thomas J. Morgan, and Barbara McCrady. "Improving 24-Month Abstinence and Employment Outcomes for Substance-Dependent Women Receiving Temporary Assistance for Needy Families with Intensive Case Management." *American Journal of Public Health*, vol. 99, no. 2, 2009b, pp. 328–333.

Mueser, Kim T., Kikuko Campbell, and Robert E. Drake. "The Effectiveness of Supported Employment in People with Dual Disorders." *Journal of Dual Diagnosis*, vol. 7, no. 1, 2011, pp. 90–102.

National Academies of Sciences, Engineering, and Medicine. "Medications for Opioid Use Disorder Save Lives." Washington, DC: The National Academies Press, 2019a.

<https://www.nap.edu/catalog/25310/medications-for-opioid-use-disorder-save-lives>.

Petry, Nancy M., Leonardo F. Andrade, Carla J. Rash, and Martin G. Chermiack. "Engaging in Job-Related Activities Is Associated with Reductions in Employment Problems and Improvements in Quality of Life in Substance Abusing Patients." *Psychology of Addictive Behaviors: Journal of the Society of Psychologists in Addictive Behaviors*, vol. 28, no. 1, 2014, pp. 268–275.

Saal, Susanne, Lukas Forschner, Dietmar Kemmann, Jacqueline Zlatosch, and Thomas W. Kallert. "Is Employment-Focused Case Management Effective for Patients with Substance Use Disorders? Results from a Controlled Multi-Site Trial in Germany Covering a 2-Year-Period After Inpatient Rehabilitation." *BMC Psychiatry*, vol. 16, 2016, p. 279.

Svikis, Dace S., Lori Keyser-Marcus, Maxine Stitzer, Traci Rieckmann, Laretta Safford, Peter Loeb, Tim Allen, Carol Luna-Anderson, Sudie E. Back, and Judith Cohen. "Randomized Multi-Site Trial of the Job Seekers' Workshop in Patients with Substance Use Disorders." *Drug and Alcohol Dependence*, vol. 120, no. 1-3, 2012, pp. 55–64.

Tuten, Michelle, Julia M. Shadur, Maxine Stitzer, and Hendrée E. Jones. "A Comparison of Reinforcement Based Treatment (RBT) Versus RBT Plus Recovery Housing (RBTRH)." *Journal of Substance Abuse Treatment*, vol. 72, 2017, pp. 48–55.

Webster, J. M., Michele Staton-Tindall, Megan F. Dickson, John F. Wilson, and Carl G. Leukefeld.
“Twelve-Month Employment Intervention Outcomes for Drug-Involved Offenders.” *American Journal of
Drug & Alcohol Abuse*, vol. 40, no. 3, 2014, pp. 200–205.