Master List of Evidence-Based and Innovative Interventions for Drug Overdose Prevention

November 2019

Table of Contents

Introduction

The increasing number of drug overdose deaths has created a public health crisis in Rhode Island. Rhode Island's overdose crisis has impacted every community in the state. The Rhode Island Department of Health (RIDOH) Drug Overdose Prevention Program (DOPP), in collaboration with the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH), offers this collection of evidence-based and innovative drug overdose prevention interventions to guide the development and enhancement of opioid-related work. The purpose of this document is to provide communities with the tools and instructions needed to implement drug overdose prevention interventions with even greater success. This collection of evidence-based and innovative drug overdose prevention interventions is expected to expand in the future as more research is published on addressing the epidemic. Grantees and partners are urged to consider replicating or adapting one or more of these interventions to meet the diverse needs of communities across Rhode Island.

Disclaimer: Due to federal funding restrictions, funding may not be available for some or all aspects of certain interventions. For example, grants from the Centers for Disease Control and Prevention (CDC) do not allow for the procurement of medical services or treatment supplies. Check with your grant project officer regarding grant restrictions prior to implementing any initiative.

Methodology

The following approaches summarize interventions represented in detail within the *Master Evidence-Based Table*.

RIDOH Approach

RIDOH's DOPP used these sources to search for evidence-based interventions:

1. Evidence-Based Practices Resource Center;
2. Substance Abuse Mental Health Services Administration (SAMHSA): Preventing Prescription Drug Misuse: Programs and Strategies;
3. Association for Territorial and Health Officials (ASTHO) Primary Prevention Science-Based Approaches;
4. Blueprints for Healthy Youth Development;
5. Centers for Disease Control and Prevention Overdose Data to Action Notice of Funding Opportunity;
6. Published research articles; and
7. Information provided by Subject Matter Experts (SMEs).

Evidence-based interventions were selected based on a review of scientific literature and consultancy with content experts. The interventions demonstrated four qualifying criteria:

1) Valid and reliable research design;
2) Evidence that has influenced the target population(s);
3) Availability of evaluation tools, or the ability to design and implement an evaluation tool within a limited timeframe; and
4) Alignment with one of the four strategic pillars of Governor Gina M. Raimondo's *Overdose Prevention Action Plan* (Prevention, Rescue, Treatment, and Recovery).

In addition to evidence-based interventions, RIDOH's DOPP selected several promising innovations that have shown an experiential success. Many of these promising innovations are already embedded in the State of Rhode Island's opioid overdose prevention activities.

BHDDH Approach

BHDDH reviewed and used these sources to search for evidence-based interventions:

1) SAMHSA: Center for the Application of Prevention Technologies (CAPT) Decision Support Tools Preventing Prescription Drug Misuse: Overview of Factors and Strategies, May 2016;
2) SAMHSA: CAPT Preventing Heroin Use; Facts, Factors, and Strategies Issues Brief;
3) SAMHSA: Preventing Prescription Drug Misuse: Programs and Strategies; and
4) SAMHSA: Registry of Effective Practices and Programs (since discontinued).

The identified strategies fit into two categories – programs or interventions based on research that could feasibly be implemented at the state level and complementary activities that can be coupled with another program or intervention.

Authors

Linda Barovier, MS
Dahianna Lopez, PhD, MPH, MSN

Contributors

RIDOH

Annemarie Beardsworth, CCPH
Lauren Conkey, MPH
Gina Deluca
Rachael Elmaleh
Christina Hom, MPH
Jennifer Koziol, MPH
Meghan McCormick, MPH
Mia Patriarca, MA

BHDDH

Elizabeth Farrar
Olivia King, ScM
Candace Rodgers, MPH, CHES

EOHHS

Catherine Cool Rumsey

Master Evidence-Based Table Term Definitions

Identifier	Interventions numbered for ease of reference
Pillar	Prevention, Rescue, Treatment, or Recovery – The program or intervention was identified as meeting one of the four strategies of Governor Gina M. Raimondo's *Overdose Prevention Action Plan*.
Intervention	• Name of intervention • Each program or intervention was identified as addressing one or more of four opioid-related issues: drug use, opioid use, overdose, or addiction.
Description	Program or intervention description, including intended outcomes (underlined) and intended target populations
Evidence	Brief description of some general outcomes that were found in the literature
Peer-Reviewed Research	Yes or no; identified peer-reviewed research that was conducted on the program or intervention
Considerations	General notes that may be of interest to anyone considering implementing the named intervention.

Prevention

Prevention interventions can be defined as primary, secondary, or tertiary. Below are definitions for each level of prevention from Kolodny et al. (2015).[1]

- *The aim of **primary prevention** is to reduce the incidence of a disease or a condition. Opioid addiction is typically chronic, difficult to treat, and associated with high rates of morbidity and mortality. Thus, bringing the opioid addiction epidemic under control requires effort to prevent new cases from developing.*
- *The aim of **secondary prevention** is to screen for a health condition after its onset, but before it causes serious complications. Efforts to identify and treat opioid-addicted individuals early in the course of the disease are likely to reduce the risk of overdose, psychosocial deterioration, transition to injectable opioid use, and medical complications.*
- ***Tertiary prevention** strategies involve both therapeutic and rehabilitative measures once a disease is firmly established. The goal of tertiary prevention of opioid addiction is to prevent overdose deaths, medical complications, psychosocial deterioration, transition to injectable opioid drug use, and injection-related infectious diseases. Doing so is accomplished mainly by ensuring that opioid-addicted individuals can access effective and affordable opioid addiction treatment.*

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
PRIMARY PREVENTION						
P.1.	Prevention	Brazelton Touchpoints Home Visiting Training ☑ drug use	"Brazelton Touchpoints training builds the capacity of early childhood professionals to support the expertise of families to provide sensitive, nurturing, and developmentally informed caregiving."[2] The program focuses on the intersection between a child's biology, environment, and relationships with caregivers. Brazelton refers to periods of developmental regression followed by bursts as "touchpoints" because they provide opportunities for providers working with families to "touch" into the family system.[3] Providers trained in this method can better support resiliency and family capacity...	Evaluation of home visits based on the *Touchpoints* model is associated with better maternal-infant interaction, increased well-child care treatment adherence, improved child developmental outcomes, enhanced maternal mental health indicators, more prolonged breastfeeding, and greater satisfaction with care by providers six months postpartum[4]; a few small trials of postnatal home visiting found reduction of both drug use by mothers and negative developmental outcomes of the children.[5]	Yes	

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
PRIMARY PREVENTION						
P.2.	Prevention	Familias Unidas ☑ drug use	Multilevel, family-based intervention (providing a parent support network and culturally specific methods for Hispanic families) to prevent risky behaviors, increase knowledge and empowerment in Hispanic adolescents; intervention timing is unclear.	Prado and colleagues (2012) found that *Familias Unidas* reduced reported illicit drug use from first use at 29.1% to 22.5% nine months following the intervention.[6]	Yes	
P.3.	Prevention	Families Facing the Future (FFF) ☑ drug use	Program (relapse prevention, parenting skills, home-based case management services) for parents (six to eight families) receiving methadone treatment and their children that seeks to reduce parents' use of illegal drugs and teaches family management skills to reduce children's risk for future drug abuse.[7] Intervention timing is at least four months.	"The promise of the FFF program—particularly for very high-risk families—is evident in the early reduction in family-related risk factors with an overall trend toward positive program effects on child outcomes."[8] Overall, intervention and control participants did not differ significantly in the risk of developing substance use disorders; however, intervention group male children compared to the control group did have significant differences.[9]	Yes	
P.4.	Prevention	Good Behavior Game (GBG) ☑ drug use	Classroom-based behavior management strategy for teachers is designed for socializing children to increase the rate of on-task behaviors and reduce disruptive classroom behavior; intervention timing is unclear	GBG was first tested in 1969, and several studies have confirmed that GBG is effective. A meta-analysis synthesized single-case studies across 21 studies, representing 1,580 students in pre-kindergarten through grade 12. "GBG is most effective in reducing disruptive and off-task behaviors… and students with or at risk for EBD benefit most from the intervention." [10]	Yes	Consider focusing on children and families as a SUD support mechanism.

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
PRIMARY PREVENTION						
P.5.	Prevention	Guiding Good Choices (formally *Preparing for Drug-Free Years*) [11] ☑ drug use	Curriculum-guided (five two-hour sessions) information and skills on family involvement and interaction; setting clear expectations, monitoring behavior, and maintaining discipline; other family management and bonding approaches for parents and their children to reduce risk factors and promote strong bonding in their families.	One study found that the intervention group had better child management skills and a lower rate of initiation for substance use as compared to a control group.[12]	Yes	
P.6.	Prevention	The Incredible Years ☑ drug use	A series of three developmentally-based curricula for parents, teachers, and children; the program is designed "to promote emotional and social competence and prevent, reduce, and treat behavioral and emotional problems in young children"[13] that can lead to conduct disorders, delinquency, academic underachievement, and substance use; short-term goals include improved parent-child interactions, building positive relationships and attachment, improved parental functioning, less harsh and more nurturing parenting, and increased parental social support and problem solving.[14]	"Results indicated that intervention teachers used more positive classroom management strategies, and their students showed more social competence and emotional self-regulation, and fewer conduct problems than control teachers and students."[15] Reductions in parental depression and stress; increases in positive family communication and problem-solving, nurturing parenting interactions, and replacing harsh discipline with proactive methods; increases in school involvement; increases in children's emotional literacy, social skills, problem-solving, compliance, and school readiness.[16]	Yes	
P.7.	Prevention	Mental Health First Aid (MHFA) ☑ drug use	*Mental Health First Aid* is a full-day (eight-hour) course about "how to help someone who may be experiencing a mental health or substance use challenge."[17] This training enables people to identify, understand, and respond to signs of	"A systematic review and meta-analysis support the effectiveness of MHFA training in improving mental health literacy and appropriate support for those with mental health problems up to six months after training."[18]	Yes	

			addictions and mental illnesses. Intervention timing is one or two days in length.	A study of MHFA implemented in a workplace "found a number of benefits from this training course, including greater confidence in providing help to others, a greater likelihood of advising people to seek professional help, improved concordance with health professionals about treatments, and decreased stigmatizing attitudes."[19]		
P.8.	Prevention	Nurse-Family Partnership (NFP) ☑ drug use	Nurse-Family Partnership provides home visits to at-risk pregnant women with no previous live births, typically, monthly during pregnancy, and two years post-delivery. Interventions focus on teaching positive health-related behaviors, competent care of children, and "maternal personal development (family planning, educational achievement, and participation in the workforce)."[20]	This evidence-based program focuses on the nurse-to-pregnant women model versus trained lay-visitor-to-pregnant women model in the *Brazelton Touchpoints Home Visiting Training*. A randomized-controlled trial found that one long-term effect of NFP on the maternal life course was less role impairment owing to alcohol and other drug use.[21]	Yes	
P.9.	Prevention	Parent-Child Assistance Program (PCAP) ☑ drug use	Home visiting case-management model for mothers who abuse alcohol or drugs during pregnancy; to help mothers build healthy families and prevent future births of children exposed to prenatally to alcohol and drugs; intervention timing is up to three or more years. One aim of the program is to assist substance-abusing pregnant and parenting mothers in obtaining alcohol and drug treatment, staying in recovery, and resolving complex problems related to their substance abuse.[22]	One study found that a significant increase in abstinence from alcohol and drugs for six months or more and significant decreases in subsequent pregnancies and deliveries.[23]	Yes	
P.10.	Prevention	Smart Rx ☑ drug use	Smart Rx is a multimedia, web-based education and intervention program for prescribers, "focusing on five classes of prescription drugs: analgesics, sedative-hypnotics, stimulants, antidepressants, and tranquilizers. The program consists of education" [24] to increase knowledge	One prospective, randomized-controlled trial (RCT) study showed increases in knowledge about prescription drug medication properties among individuals who received the intervention as compared to the control group. It also showed an increase in measures of confidence about	Yes	

			on the medicinal properties of these prescriptions, safe and responsible use of these prescriptions, and self- management strategies to improve health without these prescriptions; intervention timing is probably less than a day training.	adhering to physician medication instructions and managing problems with medication.[25,26] The target population is prescribers who are affiliated with a hospital; 1.0 CME is available		
P.11.	Prevention	LifeSkills Training (LST) ☑ drug use	School-based program (middle school/junior high) addresses multiple risk and protective factors by promoting general self-management skills, general social skills, and information and skills that are specific to drug use; delivered by trained teachers to increase knowledge around substance use prevention education; 15 class periods in grade 6 or 7, 10 sessions in grade 7 or 8, and five sessions in grade 8 or 9; intervention timing is three years.	LST is an "effective primary prevention program for adolescent drug abuse that addresses the risk and protective factors associated with drug use initiation and teaches skills related to social resistance and enhancing social and personal competence."[27] Evaluations of LST have demonstrated effects on a number of relevant variables that mediate program effects, including assertiveness, decision-making skills, social competence, substance expectancies, norms, and refusal intentions.[28]	Yes	
P.12.	Prevention	Prescription Drug Take-Back ☑ drug use	There are two approaches: Take Back events (one-time only or recurring) and secure drop boxes in locations around the community (permanently installed or temporarily available) for individuals to dispose of unwanted/unused/expired prescription drugs voluntarily.	Supported by the US Drug Enforcement Administration (DEA) and BHDDH, this program is an effective method of removing unused medications from the community.[29] However, controlled medications collected by take-back events and permanent drug donation boxes constitute a small proportion of the numbers initially dispensed. Prescription drug take-back events may have a minimal impact on reducing the availability of unused controlled medications at a community level.[30]	Yes	

P.13.	Prevention	Project Schools Using Coordinated Community Efforts to Strengthen Students (SUCCESS) ☑ drug use	"Student Assistance Counselors provide an assessment and conduct individual and group sessions for students with alcohol, drug, school, family, peer, or other problems that can lead to alcohol and drug use. Prevention efforts are aimed at changing student, parent, and community norms and expectations about substance use."[31] Intended for middle and high school students, age 12-19.	Favorable effects of the program on reduction of alcohol and other drug use; considered a model intervention by several organizations, including SAMHSA.	Yes	
P.14.	Prevention	Project Towards No Drug Abuse (TND) ☑ drug use	Interactive, classroom-based substance abuse prevention program intended for high school students, ages 14-19.	Favorable effects of the program on reduction of hard drug use; considered a model intervention by several organizations, including SAMHSA, the US Department of Defense, and the National Institute on Drug Abuse (NIDA).	Yes	
P.15.	Prevention	Strengthening Families (SFP)10-14 Program ☑ drug use	SFP is a school-based evening intervention (seven, two-hour concurrent parent and youth (6th and 7th-grade students) sessions and skill-building segments to decrease risk and strengthen protective factors related to substance misuse (prescription drug misuse); intervention is limited to seven to 10 families; intervention timing is one to two months.	"Youth attending the program had significantly lower rates of alcohol, tobacco and marijuana use compared to control youth. The differences between program and control youth increased over time, indicating that the skills learned and the strong parent-child relationships continue to have greater and greater influence. Youth attending the program had significantly fewer conduct problems in school than youth in the control group. Parents showed gains in specific parenting skills, including setting appropriate limits and building a positive relationship with their youth. Parents showed an increase in positive feelings towards their children. Parents show gains on general child management, including setting rules and following through with consequences. Parents increase skills in general child management, such as effectively monitoring youth and having appropriate and consistent	Yes	

				discipline." [32]		
P.16.	Prevention	Training Program for medical, dental, and nursing students ☑ opioid use ☑ overdose	This interprofessional, four-component workshop on Opioid Use Disorder (four to eight hours) is intended for college and graduate-level students in the health professions.	Student knowledge, skills, and attitudes toward opioid misuse increased after exposure to the training program.[33]	Yes	
P.17.	Prevention	Triple P – Positive Parenting Program ☑ drug use	Public health-oriented parenting intervention aimed at increasing parents' knowledge, skills, and confidence in preventing severe behavioral, emotional, and developmental problems in children and adolescents.[34] Initially designed for at-risk children and parents, *Triple P* is broadly applicable to the general population. Specific goals include: • Promoting parental confidence, self-efficacy, and self-sufficiency; • Teaching self-management tools for improving parental effectiveness; • Promoting problem-solving to help parents define "problems, formulate opinions, develop a parenting plan, execute the plan, evaluate the outcome, and revise the plan as required."[35]	"Significant short-term effects were found for children's social, emotional, and behavioral outcomes; parenting practices; parenting satisfaction and efficacy; parental adjustment; parental relationship; and child observational data." Meta-analyses of the efficacy of Triple P… show positive effects on children's social, emotional, and behavioral outcomes, parenting practices, parenting satisfaction and efficacy, and child-parent relationships.[36]	Yes	

SECONDARY PREVENTION						
P.18.	Prevention	Chronic Pain Self-Management Program ☑ drug use	Small group workshop (10-20 participants); 2.5 hours per session; one session per week for six weeks; classes are highly participatory; provides participants with the tools to manage medications, fatigue, frustration, proper nutrition; improve communication skills; and evaluate treatments and action plans; must be 18 or older; can have chronic pain, chronic disease, be a caregiver, or want to improve health.	One RCT found that the group that received the intervention made significant short-term improvements in pain, dependency, vitality, aspects of role functioning, life satisfaction, and self-efficacy, and resourcefulness as compared to the group that did not receive the intervention.[37]	Yes	Recovery to Opportunity grant through the Department of Labor and Training also funds this for Community Health Workers
TERTIARY PREVENTION						
P.19.	Prevention	Distribution of Fentanyl Test Strips (FTS) ☑ overdose	Fentanyl test strips allow for the testing of substances to check for the presence of fentanyl. Distribution of FTSs to high-risk users is a harm reduction intervention.	FTS can effectively prevent overdoses. Evidence has shown that people who use drugs changed their drug-use behavior after using FTS to test drugs.[38]	Yes	SAMHSA and CDC no longer fund this intervention. However, other sources of funding may cover it.

Rescue

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
R.1.	Rescue	NaloxBox ☑ overdose	A NaloxBox is a smart cabinet strategically installed in a public setting that allows bystanders to respond to an opioid overdose. Each NaloxBox contains four doses of naloxone, a mask for rescue breaths, and information on how to access treatment for addiction and take-home (personal) naloxone. Can provide hotspot maps of overdoses to help inform the location-based installation.	Innovation. As of October 2019, there are no published studies on the effectiveness of this intervention.	No	Some SAMHSA discretionary grants permit the use of funds for the purchase of naloxone BHDDH has an order for naloxone. Some grant funds cannot be used for the purchase of naloxone.
R.2.	Rescue	Overdose Education and Naloxone Distribution (OEND) ☑ opioid use ☑ overdose	"Naloxone is a potent opioid antagonist that is avid at the mu-opioid receptor. It is FDA approved for emergency treatment of known or suspected opioid overdose with respiratory and/or central nervous system depression….Empowering people who use opioids to engage overdose prevention by recognizing and addressing modifiable risk factors is an important feature of OEND programs….Equipped with the education and training provided by OEND programs, naloxone can be administered by bystanders, whether that bystander is a person who also uses opioids, a	OEND has been found to have a low rate of adverse events and to reduce overdose-related mortality.[40]	Yes	Some grant funds cannot be used for the purchase of naloxone. Miriam Hospital's Preventing Overdose and Naloxone Intervention (PONI) Program may be able to donate naloxone kits.

			friend, family member, acquaintance, or first responders such as police or firefighter personnel."[39]			Interested stakeholders can also partner with AIDS Care Ocean State's (Education, Needle Exchange, Counseling, Outreach, Referrals (ENCORE)) to coordinate the distribution of naloxone and the offering of other services (clean needles, HIV and hepatitis C testing, condoms, and referrals) to drug users through street outreach, mobile van, and home delivery.

Treatment

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
T.1.	Treatment	Brief Strategic Family Therapy ☑ drug use	A structured, problem-focused, directive, and practical approach to the treatment of conduct problems, associations with anti-social peers, early drug use, and accompanying maladaptive family interactions, and other recognized youth risk factors.	"BSFT is effective in reducing alcohol use in parents and in reducing adolescents' substance use in families where parents were using drugs at baseline."[41]	Yes	
T.2.	Treatment	Computer-Based Training for Cognitive Behavioral Therapy (CBT 4 CBT) ☑ addiction	This is a self-guided, web-based program that teaches a variety of skills that are specifically for helping people reduce symptoms of OUD. People who work with CBT 4 CBT usually complete one module per week. Intended for individuals with OUD.	People who use CBT4CBT, in addition to their regular treatment for drug and alcohol use, reduce their use more than people in standard treatment alone.[42]	Yes	
T.3.	Treatment	Medication-Assisted Treatment (MAT) ☑ addiction	Opioid treatment programs that combine behavioral therapy, counseling, and medications to treat substance use disorders; three FDA-approved medications that are often used to treat opioid addiction include methadone, naltrexone, and buprenorphine.	"MAT has proved to be clinically effective and to significantly reduce the need for inpatient detoxification services for these individuals. MAT provides a more comprehensive, individually tailored program of medication and behavioral therapy. MAT also includes support services that address the needs of most patients."[43]	Yes	MAT is reimbursable by insurance, including Medicaid. Grant funding could only cover non-reimbursable services.
T.4.	Treatment	Multi-Dimensional Family Therapy (MDFT) ☑ drug use ☑ addiction	A comprehensive family- and community-based treatment for substance-abusing adolescents and those at high risk for behavior problems such as to conduct disorder and delinquency, fostering family competency and collaboration with schools and juvenile justice.	MDFT stands out in its success in not only reducing drug abuse and related serious functional impairments, but also promoting prosocial behavior, school performance, and family functioning, all in a relatively brief period (4-5 months). And, these treatment effects were stable;	Yes	

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
			This is a 4-6-month intensive, in-home service for children who are misusing substances or at risk for substance misuse and are living at home with or returning to a primary caregiver.	Indeed, in some cases, they accelerated off the 1-year post-treatment follow-up period.[44]		
T.5.	Treatment	Parenting with Love and Limits ☑ drug use ☑ addiction	Family education, skill-building, and therapeutic intervention model for reducing aggressive behaviors, depression, attention deficit disorder problems, externalizing problems, and substance abuse.	"Youth who completed PLL had statistically significant lower rates of subsequent justice system involvement on three indicators of recidivism, adjudications, felony adjudications, and contacts with the law that did not result in adjudication, with risk reductions of 28 to 44%."[45] The preliminary outcomes from [a] small-scale randomized evaluation design suggest that the Parenting with Love and Limits (PLL) group therapy approach may be an effective mechanism for reducing oppositional and conduct disorder behaviors among delinquent youths disposed to probation.[46]	Yes	

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
T.6.	Treatment	Heroin-Opioid Prevention Education (HOPE) Initiative ☑ drug use ☑ addiction	A law enforcement initiative, HOPE, brings treatment and recovery support services directly to overdose survivors and others at risk for overdose by utilizing the resources of local law enforcement in coordination with substance use clinicians and recovery coaches. • Patients discharged from a hospital or Emergency Department (ED) after suffering an overdose • Inmates who received substance-abuse treatment in prison and are released • Individuals who fail to attend a required Drug Court hearing • Individuals referred to the HOPE Initiative from law enforcement or the general public.	Innovation; As of October 2019, there are no published studies on the effectiveness of this intervention.	No	Currently funded by the Rhode Island State Police
T.7.	Treatment	Safe Stations ☑ addiction	Individuals with mental health disorders, homeless, veterans, and high-risk populations as determined by a municipality; intended for people who are struggling with Opioid Use Disorder (OUD).	Innovation; New Hampshire Safe Stations is currently undergoing a formal evaluation by the Dartmouth Center for Technology and Behavioral Health; As of October 2019, there are no published studies on the effectiveness of this intervention.	No	
T.8.	Treatment	Seeking Safety ☑ drug use ☑ opioid use ☑ overdose ☑ addiction	Treatment protocol for addressing Post Traumatic Stress Disorder (PTSD) and other trauma-related conditions. "Seeking Safety is an evidence-based, present-focused counseling model to help people attain safety from trauma and/or substance abuse. This treatment can either be conducted in a group setting or individual modality." [47]	"One meta-analysis evaluated the Seeking Safety program's effectiveness for treating posttraumatic stress disorder (PTSD) and substance use symptoms … yielded medium effect sizes for decreasing symptoms of PTSD and modest effects for decreasing symptoms of substance use."[48]	Yes	This intervention is generally integrated into an array of outpatient and inpatient counseling services and may be covered by insurance.

Recovery

Identifier	Pillar	Intervention	Description	Evidence	Peer-Reviewed Research	Considerations
R.1.	Recovery	E-Recovery/ mobile connections app: CHESS Health ☑ addiction	CHESS Health is a smartphone app that promotes positive behavior change and provides 24/7 support; intended for people seeking/undergoing OUD treatment.	CHESS has been used by more than 7,000 people and used by 60 treatment centers nationwide. Research trials have shown that patients had significant improvements in reducing risky drinking days, illicit drug-use days, and the number of hospitalizations and improved quality of life and HIV screening rates.[49]	Yes	
R.2.	Recovery	Peer Recovery Specialist/Support Services ☑ addiction	"Peer recovery support services, delivered by recovery coaches, are one form of peer support. They involve the process of giving and receiving non-clinical assistance to support long-term recovery from substance use disorders…Peer recovery support services can support or be an alternative to clinical treatment for substance use disorders."[50]	"Research suggests that receipt of peer recovery support may result in improved relationships with treatment providers, increased treatment retention, improved access to social supports, decreased emergency service utilization, reduced relapse rates, reduced substance use, [and] greater housing stability."[51]	Yes	Peer Recovery Specialist Services are Medicaid reimbursable service under certain circumstances Supported by some emergency departments
R.3.	Recovery	Community Reinforcement Approach and Family Training (CRAFT) ☑ addiction	"Community Reinforcement Approach and Family Training (CRAFT) is designed to help a family member or concerned significant other (CSO) of a substance-using individual who is treatment-resistant. It addresses three goals: 1) engaging the identified treatment-resistant person (IP) in treatment, 2) reducing their substance use, and 3) improving the CSO's mood and functioning."[52]	"The most consistent outcome of CRAFT is increased treatment entry of the identified treatment-resistant person (IP)."[53]	Yes	

Complementary Activities

The following are activities that can be carried out in conjunction with the evidence-based or innovative interventions mentioned in this report. These are non-clinical support services that are used in conjunction with treatment to support individuals in their recovery goals.

1. Transportation to and from treatment and recovery-oriented activities
2. Recovery Friendly workplaces, community centers, and/or education supports
3. Specialized living situations (recovery housing)
4. Peer-to-peer outreach, mentoring, and coaching
5. Faith-Based efforts to reduce stigma and support treatment and recovery
6. Education, outreach to, and support of families impacted by the overdose crisis
7. Self-help and support groups that facilitate treatment and recovery
8. Awareness, education, and/or stigma reduction campaigns geared toward specific populations
9. Education and promotion of the Rhode Island Good Samaritan Law (GSL)
10. Education and support for providers to become Drug Addiction Treatment Act (DATA)-waivered; promoting appropriate prescribing of opioid pharmacotherapies by DATA-waivered providers
11. Partnership with Local and/or Regional Prevention Coalitions (RPCs) and Rhode Island Health Equity Zones (HEZs) to leverage efforts and expand reach

References

[1] Kolodny, A., Courtwright, D. T., Hwang, C. S., Kreiner, P., Eadie, J. L., Clark, T. W., and Alexander, G. C. (2015). The prescription opioid and heroin crisis: a public health approach to an epidemic of addiction. *Annual review of public health*, *36*, 559-574.

[2] National Initiatives. (n.d.). Retrieved November 1, 2019, from http://www.first5alameda.org/national-initiatives.

[3] A Review of the Early Care and Education Literature: Evidence Base for Touchpoints. (n.d.). Retrieved November 1, 2019, from https://www.brazeltontouchpoints.org/wp-content/uploads/2011/09/A_Review_of_the_Early_Care_and_Education_Literature__Evidence_Base_Oct_20081.pdf.

[4] Brazelton Touchpoints. (n.d.). Retrieved November 1, 2019, from https://www.brazeltontouchpoints.org/about/evidence-based-research/.

[5] Schuler, M. E., Nair, P., & Kettinger, L. (2003). Drug-exposed infants and developmental outcome: effects of a home intervention and ongoing maternal drug use. Archives of pediatrics & adolescent medicine, 157(2), 133-138.

[6] Familias Unidas™. (n.d.). Retrieved November 1, 2019, from https://www.blueprintsprograms.org/programs/familias-unidas/.

[7] National Institute on Drug Abuse. (n.d.). Selective Programs. Retrieved November 1, 2019, from https://www.drugabuse.gov/publications/preventing-drug-abuse-among-children-adolescents/chapter-4-examples-research-based-drug-abuse-prevention-progr-1.

[8] National Institute on Drug Abuse. (n.d.). Selective Programs. Retrieved November 1, 2019, from https://www.drugabuse.gov/publications/preventing-drug-abuse-among-children-adolescents/chapter-4-examples-research-based-drug-abuse-prevention-progr-1.

[9] Haggerty, K. P., Skinner, M., Fleming, C. B., Gainey, R. R., & Catalano, R. F. (2008). Long-term effects of the Focus on Families project on substance use disorders among children of parents in methadone treatment. Addiction, 103(12), 2008-2016.

[10] Bowman-Perrott, L., Burke, M. D., Zaini, S., Zhang, N., & Vannest, K. (2016). Promoting positive behavior using the Good Behavior Game: A meta-analysis of single-case research. Journal of Positive Behavior Interventions, 18(3), 180-190.

[11] Note: Program website under construction. For more information, contact: Shelley Logan at the Social Development Research Group, University of Washington; slogan@uw.edu

[12] Guiding Good Choices. (n.d.). Retrieved November 1, 2019, from https://www.blueprintsprograms.org/programs/guiding-good-choices/.

[13] National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting matters: Supporting parents of children ages 0-8*, Page 239. National Academies Press.

[14] Walsh, C., Rolls Reutz, J., & Williams, R. (2015). Selecting and implementing evidence-based practices: A guide for child and family serving systems [2nd ed.]. San Diego, CA: California Evidence-Based Clearinghouse for Child Welfare.

[15] Webster-Stratton, C., Jamila Reid, M., & Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: evaluation of the incredible years teacher and child training programs in high-risk schools. Journal of child psychology and psychiatry, 49(5), 471-488.

[16] The Incredible Years: For Researchers. (n.d.). Retrieved November 1, 2019, from http://www.incredibleyears.com/for-researchers/.

[17] Kitchener BA, Jorm AF, Kelly CM: Mental Health First Aid Manual, 4th ed. Melbourne, Mental Health First Aid Australia, 2017

[18] Morgan, A. J., Ross, A., & Reavley, N. J. (2018). Systematic review and meta-analysis of mental health first aid training: effects on knowledge, stigma, and helping behaviour. PloS one, 13(5), e0197102.

[19] Kitchener, B. A., & Jorm, A. F. (2004). Mental health first aid training in a workplace setting: a randomized controlled trial [ISRCTN13249129]. BMC psychiatry, 4(1), 23.

[20] Olds, D. L., Kitzman, H., Knudtson, M. D., Anson, E., Smith, J. A., & Cole, R. (2014). Effect of home visiting by nurses on maternal and child mortality: results of a 2-decade follow-up of a randomized clinical trial. *JAMA pediatrics*, *168*(9), 800-806.

[21] Olds, D. L., Kitzman, H. J., Cole, R. E., Hanks, C. A., Arcoleo, K. J., Anson, E. A., ... & Stevenson, A. J. (2010). Enduring effects of prenatal and infancy home visiting by nurses on maternal life course and government spending: follow-up of a randomized trial among children at age 12 years. Archives of Pediatrics & Adolescent Medicine, 164(5), 419-424.

[22] Parent-Child Assistance Program. (n.d.). Retrieved November 1, 2019, from http://depts.washington.edu/pcapuw/.

[23] Grant, T., Ernst, C. C., Pagalilauan, G., & Streissguth, A. (2003). Postprogram follow-up effects of paraprofessional intervention with high-risk women who abused alcohol and drugs during pregnancy. Journal of Community Psychology, 31(3), 211-222.

[24] CAPT Decision-Support Tools: PREVENTING PRESCRIPTION DRUG MISUSE: Programs and Strategies. (n.d.). Retrieved November 14, 2019, from https://www.edc.org/sites/default/files/uploads/preventing-prescription-drug-misuse-strategies.pdf .
[25] Deitz, D. K., Cook, R. F., & Hendrickson, A. (2011). Preventing prescription drug misuse: field test of the SmartRx Web program. Substance use & misuse, 46(5), 678-686.
[26] Smart Rx. (n.d.). Retrieved November 1, 2019, from https://mindsetdigital.com/smartrx2019/.
[27] Botvin, G. J., & Griffin, K. W. (2004). Life skills training: Empirical findings and future directions. Journal of primary prevention, 25(2), 211-232.
[28] Spoth, R. L., Redmond, C., Trudeau, L., & Shin, C. (2002). Longitudinal substance initiation outcomes for a universal preventive intervention combining family and school programs. Psychology of Addictive Behaviors, 16(2), 129.
[29] Perry, L. A., Shinn, B. W., & Stanovich, J. (2014). Quantification of an ongoing community-based medication take-back program. Journal of the American Pharmacists Association, 54(3), 275-279.
[30] Liu, Y. (2017). Evaluating the effectiveness of disposal programs through a comparison with prescription drug monitoring program data. The American journal of drug and alcohol abuse, 43(3), 360-360.
[31] Rhode Island Student Assistance Services. (n.d.). Retrieved November 1, 2019, from https://www.risas.org/.
[32] Strengthening Families Program Research. (n.d.). Retrieved November 1, 2019, from https://www.extension.iastate.edu/sfp10-14/research.
[33] Monteiro, K., Dumenco, L., Collins, S., Bratberg, J., MacDonnell, C., Jacobson, A., ... & George, P. (2017). An interprofessional education workshop to develop health professional student opioid misuse knowledge, attitudes, and skills. Journal of the American Pharmacists Association, 57(2), S113-S117.
[34] Sanders, M. R. (2008). Triple P-Positive Parenting Program as a public health approach to strengthening parenting. Journal of family psychology, 22(4), 506.
[35] Sanders, M. R., & Mazzucchelli, T. G. (Eds.). (2017). The power of positive parenting: Transforming the lives of children, parents, and communities using the Triple P system. Oxford University Press.
[36] Speaks, A. (2014). Strategies for Scaling Effective Family-Focused Preventive Interventions to Promote Children's Cognitive, Affective, and Behavioral Health-Workshop Summary.
[37] LeFort, S. M., Gray-Donald, K., Rowat, K. M., & Jeans, M. E. (1998). Randomized controlled trial of a community-based psychoeducation program for the self-management of chronic pain. Pain, 74(2-3), 297-306.
[38] Krieger, M. S., Goedel, W. C., Buxton, J. A., Lysyshyn, M., Bernstein, E., Sherman, S. G., ... & Marshall, B. D. (2018). Use of rapid fentanyl test strips among young adults who use drugs. International Journal of Drug Policy, 61, 52-58.
[39] Kerensky, T., & Walley, A. Y. (2017). Opioid overdose prevention and naloxone rescue kits: what we know and what we don't know. Addiction science & clinical practice, 12(1), 4.
[40] McDonald, R., & Strang, J. (2016). Are take-home naloxone programmes effective? Systematic review utilizing application of the Bradford Hill criteria. Addiction, 111(7), 1177-1187.
[41] Horigian, V. E., Feaster, D. J., Brincks, A., Robbins, M. S., Perez, M. A., & Szapocznik, J. (2015). The effects of Brief Strategic Family Therapy (BSFT) on parent substance use and the association between parent and adolescent substance use. Addictive behaviors, 42, 44-50.
[42] Computer-Based Training for Cognitive Behavioral Therapy (n.d.). Retrieved November 1, 2019, from http://www.cbt4cbt.com/about-cbt4cbt/.
[43] https://www.samhsa.gov/medication-assisted-treatment/treatment#medications-used-in-mat
[44] Liddle, H. A., Dakof, G. A., Parker, K., Diamond, G. S., Barrett, K., & Tejeda, M. (2001). Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. The American journal of drug and alcohol abuse, 27(4), 651-688.
[45] Karam, E. A., Sterrett, E. M., & Kiaer, L. (2017). The integration of family and group therapy as an alternative to juvenile incarceration: A quasi-experimental evaluation using Parenting with Love and Limits. Family process, 56(2), 331-347.
[46] Sells, S. P., Early, K. W., & Smith, T. E. (2011). Reducing Adolescent Oppositional and Conduct Disorders: An Experimental Design Using the Parenting with Love and Limits® Model. Professional Issues in Criminal Justice, 6(3), 9-30.
[47] About Seeking Safety. (n.d.). Retrieved November 1, 2019, from https://www.treatment-innovations.org/ss-description.html.
[48] Lenz, A. S., Henesy, R., & Callender, K. (2016). Effectiveness of seeking safety for co-occurring posttraumatic stress disorder and substance use. Journal of Counseling & Development, 94(1), 51-61.
[49] Center for Health EnhancementSystems Studies (CHESS). (n.d.). Retrieved November 1, 2019, from https://center.chess.wisc.edu/pages/research-achess.

[50] Peers Supporting Recovery from Substance Use Disorders. (n.d.). Retrieved November 1, 2019, from https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tacs/peers-supporting-recovery-substance-use-disorders-2017.pdf.
[51] Peers Supporting Recovery from Substance Use Disorders. (n.d.). Retrieved November 1, 2019, from https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tacs/peers-supporting-recovery-substance-use-disorders-2017.pdf.
[52] Kirby, K. C., Benishek, L. A., Kerwin, M. E., Dugosh, K. L., Carpenedo, C. M., Bresani, E., ... & Meyers, R. J. (2017). Analyzing components of Community Reinforcement and Family Training (CRAFT): Is treatment entry training sufficient? Psychology of Addictive Behaviors, 31(7), 818.
[53] Kirby, K. C., Benishek, L. A., Kerwin, M. E., Dugosh, K. L., Carpenedo, C. M., Bresani, E., ... & Meyers, R. J. (2017). Analyzing components of Community Reinforcement and Family Training (CRAFT): Is treatment entry training sufficient? Psychology of Addictive Behaviors, 31(7), 818.