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Research Article

Project Save Lives: Rapid treatment protocol using peer recovery specialists in the emergency department

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Abstract

Background: Overdose deaths involving opioids, heroin, and fentanyl-class drugs have dramatically increased in the United States in the last decade. In response to the epidemic, the City of Jacksonville (Florida) and local providers came together and developed a plan to reduce repeat overdoses and deaths called Project Save Lives (PSL). PSL utilized Certified Recovery Peer Specialists (CRPS) to engage overdose victims immediately following opioid overdose reversal and offered medication-assisted treatment, recovery support, overdose prevention services, and transportation to detox/treatment services all initiated within the Emergency Department (ED).

Methods: This is an observational study of opioid related overdose victims who presented at a local health system's two emergency departments from 11/16/2017 to 05/31/2018 and were tracked for 6 months after their initial index visit. Patients were tracked as 2 separate groups: those who were approached by a CRPS during their ED visit and those who did not have contact with a CRPS due to the staffing schedule (intake days versus non-intake days). Data collected included repeat overdoses, substance use treatment services received, and opioid related deaths from the initial index visit.

Results: There were 45 individuals seen in the two participating EDs for an opioid related overdose on non-intake days (comparison group) and 101 individuals were seen on intake days (cases). Of the 101 patients that were approached by the CRPS in the ED during the 6 month evaluation period, 32 individuals accessed some type of substance use treatment and of those, 24 received medication assisted treatment. Both groups experienced a decrease in repeat overdoses during the post index visit 6 month period; however, those who declined to participate in PSL included individuals who had multiple overdoses during their post index visit period as compared to those who received treatment through the PSL program.

Conclusions: The PSL program resulted in increasing access to and participation in substance use treatment programs. Immediate engagement by a CRPS with direct linkage to substance use treatment services in the ED is demonstrating to be an effective method in addressing the opioid epidemic. Additional research is needed to evaluate the long-term impact of ED engagement programs.

Abbreviations

CRPS: Certified Recovery Peer Specialists; ED: Emergency Department; EMS: Emergency Medical Services; MAT: Medication Assisted Treatment; PSL: Project Save Lives

Background

Drug overdose deaths, including those involving prescription opioids and heroin, have more than quadrupled in the United States since 1999 [1]. Synthetic opioids, particularly illicitly manufactured fentanyl (IMF), have driven the largest increase in overdose deaths from 2014 to 2017 [2,3]. In 2015, both the DEA and the CDC issued nationwide alerts identifying illicitly manufactured fentanyl as a threat to public health and safety. In 2017, Florida heroin deaths had increased by 72% from 2014 (549 to 944) and fentanyl deaths had increased over

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224% (538 to 1,743) during this time period [4,5]. In May 2017, the governor of Florida officially declared the opioid epidemic a public health emergency, and nationally the president declared a public health emergency in October, 2017.

North Florida, and Duval County (Jacksonville) in particular, has not been spared from this epidemic. In Northeast Florida, deaths caused by heroin-involved overdose rose from 25 in 2014 to 93 in 2017, a 272% increase [4,5]. Fentanyl overdose deaths (not including analogs) increased over 800% (33 to 302) from 2014 to 2017 [4,5]. Duval County is the area/county in Florida with the fourth highest heroin and fentanyl related deaths but has the *highest incidence* based on population size [5]. Calls to 911 for overdose victims have skyrocketed and have been impacting the operations of emergency medical services (EMS). The Jacksonville Fire and Rescue Department responded to 2,114 rescue calls for opioid related drug overdoses in 2015, and had increased to 3,686 in 2017. Due to this rapidly increasing epidemic, the City of Jacksonville held a public workshop in March of 2017 to discuss strategies to address this epidemic and included local leaders, public health officials, health care and substance use treatment providers, and concerned citizens impacted by the epidemic. Concerns in addressing this problem that were discussed included waitlists for treatment facilities, a stigma surrounding addiction and mental illness, and an underfunded, siloed healthcare system. During this workshop, a comprehensive approach was discussed to directly connect those who have overdosed and are being treated in the Emergency Department (ED) to substance use treatment options in the community. The City Council supported this approach by providing funding for a community based initiative, called Project Save Lives (PSL), to be developed through partnerships with local providers (hospitals, EMS, local health department, substance use/mental health treatment facilities, etc.). The city required an evaluation component to the program to determine if the program was effective and warranted continued funding.

The Project Save Lives (PSL) program is based on the concept of engaging opioid overdose survivors while they are still recovering in the ED to consider options to immediately enter into substance use treatment when they leave the hospital. A critical component is the use of Certified Recovery Peer Specialists (CRPS) in the engagement process at the ED. While not clinical professionals, these specialists have personal experience in recovering from addiction and substance use disorders, allowing them to connect with opioid overdose victims in ways that health care professionals often are not able. In addition, overdose victims are more inclined to engage with individuals who have had the same experiences [6].

Peer based support services have been gaining national acceptance as an effective way to navigate the recovery process in substance use treatment programs [7] and increase treatment adherence [8]. The use of CRPS in the emergency department setting as a means to connect overdose patients to substance use treatment is less common and a fairly new concept in addressing the overdose epidemic; therefore, few studies have examined the efficacy of these services [6,9,10].

Methods

This was an observational study as part of a program evaluation project. The evaluation approach includes a formative evaluation process which is intended to foster continuous improvement in the development and implementation of the project as well as a summative evaluation to assess the overall impact on the project in meeting its stated goals. Initially, two local hospitals within the same healthcare system volunteered to participate in the PSL program and were included in the evaluation.

Intervention

The intervention was developed by a community based, multi-disciplinary group that included substance use treatment providers, hospital ED staff, CRPS, and leadership from the local health department and the county's emergency medical services and was based on recommendations to address opioid overdoses from the Centers of Disease Control and Prevention (CDC) [11] and Substance Abuse and Mental Health Services Administration (SAMHSA) [12] as well as Rhode Island's Anchor ED program [13]. The main components of PSL included opioid related overdose treatment and post-reversal treatment of withdrawal symptoms, motivational interviewing/counseling by a CRPS who provided overdose prevention services that included offering naloxone nasal spray, medication-assisted treatment offered in the ED and continued induction by a local substance use treatment provider, and immediate linkage/transportation to substance use treatment services - all initiated within the ED.

Program eligibility requirements included that the patient be at least 18 years of age and have a positive response to naloxone (administered by EMS or ED staff) and/or positive fentanyl urine screening test [14]. After the ED staff stabilized the patient, the CRPS spoke with the patient regarding his/her situation and the possible next steps, including treatment options for drug dependency including detox with MAT induction, residential or outpatient services. Once consent for the PSL program was obtained from the patient by the CRPS, the patient was then transported directly to a local substance use treatment facility from the ED. If a patient declined treatment, the CRPS offered naloxone and training on its use, a brochure on treatment options and asked if they can contact them in the future. If the patient agreed, the CRPS contacted the patient on a weekly basis for up to six weeks to see if he/she was now interested in pursuing treatment options. As the program matured, procedures were refined and additional treatment protocols were added. For example, it became apparent early in the program's implementation that patients experiencing withdrawal symptoms due to naloxone reversal were often too agitated to discuss their opioid dependency with the CRPS. The ED clinicians began prescribing baclofen and clonidine as part of their overdose recovery protocol to ease these symptoms. In the second quarter of program implementation, an initial dose of buprenorphine was offered to patients in the ED who agreed to immediately go to the detox facility or outpatient treatment the next day to continue their induction. The CRPS would

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immediately transport the patient to detox or accompany him/her to the outpatient treatment center the next day.

Study design

Overdose patients treated in the two participating EDs were categorized into two groups: those who were approached by a CRPS during their ED visit and those who did not have contact with a CRPS due to the staffing schedule (intake days versus non-intake days). The CRPS was only available in the EDs during Thursday through Sunday from 8 am till midnight which were the busiest times for overdoses. The evaluation was during a 12 month period (December 2017- November 2018) and included two phases. For the first phase, all opioid related overdose patients seen in the EDs during the first six months of program initiation, regardless if they arrived on an intake day or non-intake day, were identified by the program coordinator embedded in the ED. For Phase 2, each of these patients was tracked an additional 6 months to see if they entered into treatment or had repeat overdoses. Death records were also examined for one year post the initial index case to identify if they died as a result of an opioid related overdose.

Evaluation outcome measures and data collection

The goal of Project Save Lives is to reduce opioid related overdoses and mortality.The primary outcome measures for the PSL initiative are the reduction of repeat overdoses and overdose related deaths within 6 months of initial overdose (index visit) treated in the ED at the participating hospitals. Additional outcome measures were tracked on those patients who were approached by a CRPS during their ED visit include: 1) Linkage to substance use treatment services, and 2) Medication Assisted Treatment (MAT) among those who enter treatment services.

All ED overdose patients were given an identification number and data were collected and entered in a secure database by the project coordinator who was authorized to access to the hospitals' electronic health record system. The data collected for all overdose cases for the index visit included:

1. Demographics: birthdate (month/year), sex, race, insurance coverage, diagnosis code, zip code of residence.

2. Current overdose details: date/time of ED visit, manner by which patient was brought to the ED, zip code of overdose location and if naloxone provided (if transported by EMS), screening results for Fentanyl and analogs/confirmatory results

3. Previous overdoses (previous 6 months at any of the participating health system's EDs)

4. Discharge disposition of the patient from the ED (declined treatment, detox, residential, outpatient, admitted to hospital, died, arrested, involuntary institutionalization).

For Phase 2, data were collected on all overdose cases for 6 months after the index visit. The hospital's medical records were reviewed for subsequent overdoses and deaths. The PSL treatment data on the types of services that were accessed by these patients (detox, residential, outpatient and MAT) were also collected. Vital statistics from the state department of health were reviewed for any deaths that may be related to a drug overdose during the period of one year post index case for all patients (intake and non-intake days).

Analysis

The descriptive analysis examined the demographics of the patients during intake days and non-intake days to see if there were differences in these populations. In addition, the patients seen in the ED during intake days were further categorized to those who agreed to participate in the PSL program and those who declined. A comparison of overdose history (six months prior and 6 months after the index visit at the participating hospitals) of those who agreed to participate in the program, those who were approached by a CRPS but declined to participate and those who came to the ED during non-intake days was performed. In addition, an analysis of types of substance use treatment services received by the PSL participants was examined as well as if any deaths occurred during this time period. Analyses were performed using SAS 9.4 (SAS Institute, Cary NC).

Results

There were 45 individuals seen in the two participating EDs for an opioid related overdose on non-intake days (comparison group) and 105 individuals were seen on intake days (cases) from 11/16/2017 to 05/31/2018. Four of the 105 individuals died at the hospital and are excluded from the analysis. All individuals discharged from the hospital (146) were then followed for six (6) months to track their outcomes. The median age of those who arrived in the ED for an overdose on non-intake days was 36.3 while the median age of those who arrived on intake days was 36.4. White, non-Hispanic individuals who were uninsured or on Medicaid accounted for most of the overdoses on both intake and non-intake days (Table 1). The only significant difference between the two groups was gender where there were more males than females for those patients who arrived during the intake days.

Of the 101 patients who were discharged from the ED during the intake days, 32 (31.7%) patients received substance use treatment and 69 (68.3%) patients were offered but declined treatment. However, 66 of the 69 patients who declined treatment did agree to have a CRPS contact them post ED discharge. Of those who received treatment, eighteen (56.3%) participated in all three options – Detox, inpatient, and outpatient. Detox was the most used at 96.9% (31 people) and was highly recommended by the CRPS as the first step for the MAT induction process but was not required if they had their first dose of buprenorphine in the ED. Twenty-five people (78.1%) went into residential treatment, and twenty-four people (75.0%) received MAT as part of their treatment process (Table 2). None of the individuals who went to the ED during non-intake days went to the participating substance use treatment center during the 6 month follow-up period.

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Repeat overdose ED visits: Overall, overdoses treated in the ED declined with all patients during the 6 month period after the index visit as compared to the six months prior (13.0% had overdosed at least once before and only 5.5% treated again after the index visit) (Table 3). A higher proportion of patients who went into substance use treatment had a repeat overdose as compared to those who did not get treatment. Of the 45 people who came to the ED for an overdose on a non-intake day, six (6) had been seen in the ED for a collective total of 12 previous overdose visits during the prior six months of their index visit (average 2.0 visits). In the 6 months after their ED index visit, the non-intake days group had two (2) people each had one overdose visit (average 1.0 visits). Of the 32 people who came to the ED for an overdose on an intake day and ended up receiving some treatment, five (5) had been seen in the ED for a collective total of 11 previous overdose visits during the prior six months of their index visit (average 2.2 visits). In the 6 months after their ED index visit, three (3) people were seen for one additional overdose visit each (average 1.0 visits). Of the 67 people who came on intake days but declined treatment, eight (8) people had been seen in the ED a collective total of 11 times during the prior six months of their index visit (average 1.4 visits). In the 6 months after their ED index visit, three (3) people were seen for additional 6 overdose visits (average 2.0 visits). This group was especially concerning since one person came in four times in 6 days and another came twice in 6 days (including index visit), and one had 2 additional ED overdose visits – all declining to participate in the program for each of these ED visits.

Table 1: PSL Demographic Data.

	Non-Intake Days N=45	Intake Days N=101	P-Value
Median Age	36.3 (Range 23.2-72.2)	36.4 (Range 19.1-71.6)	0.90[a]
Gender			
Male	19 (42.2%)	61 (60.4%)	0.03[b]
Female	26 (57.8%)	40 (39.6%)	
Race/Ethnicity			
White	39 (86.7%)	85 (84.1%)	0.63[c]
Black/ AA	2 (4.4%)	7 (6.9%)	
Other	4 (8.8%)	4 (3.9%)	
Insurance			
Uninsured	31 (68.9%)	68 (67.3%)	0.32[c]
Medicaid	5 (11.1%)	11 (10.9%)	
Medicare	4 (8.9%)	7 (6.9%)	
Private Insurance	4 (8.9%)	5 (5.0%)	
Other/unknown	1(2.2%)	10(9.9%)	

[a]Wilcoxon Rank Sum test, [b]Chi-square test, [c]Fisher's exact test

Table 2: PSL Treatment Options.

Treatment Type	N=32	Percent
Detox, Residential, Outpatient	18	56.3%
Detox, Residential	7	21.9%
Detox only	4	12.5%
Detox, Outpatient	2	6.3%
Outpatient only	1	3.1%
Medication assisted treatment (MAT)	24	75.0%

Table 3: Overdose history 6 months before and after index emergency department visit.

	Total N=146		Non-Intake Days N=45		Intake Days w/ treatment N=32		Intake Days w/o treatment N=69	
	N (%)	Visits	N (%)	Visits	N (%)	Visits	N (%)	Visits
Prior 6 months	19 (13.0)	34	6 (13.3)	12	5 (15.6)	11	8 (11.5)	11
Post 6 months	8 (5.5)	11	2 (4.4)	2	3 (9.4)	3	3 (4.5)	6

Overdose Deaths: There was a total of 6 deaths during the evaluation period (1 year post index visit) with 4 of these deaths due to overdose or suspected overdose. Two persons agreed to peer follow-up services and two declined any services. None of the patients who agreed to access treatment services died during this period.

Discussion

There is a scarcity of evidence-based programs to effectively address opioid addiction on a large scale through a comprehensive program implemented in the ED. There have been numerous studies in the use of naloxone, both in the community and in the ED and its effectiveness in the reversal of respiratory depression [15-18] but that is only the first step in addressing major harm from opioid addiction. Additionally, there have been a few studies that show brief intervention/ counseling of patients who self-report opioid addiction or misuse in the ED resulting in the reduction of opioid overdose risk behaviors [19-21]. A study by Yale School of Medicine showed that brief intervention/counseling of individuals screened for opioid abuse were more likely to engage in treatment and those who received both the brief intervention and initiation of buprenorphine in the ED had the highest rate of enrollment into treatment [22,23]. However, EDs do not typically intervene beyond acute medical stabilization or address the patient's addiction. Several surveys of Emergency Departments across the country show that the majority of EDs have limited policies in the management of opioid related encounters that go beyond medical stabilization [24,25]. A few communities have begun to tackle opioid overdoses using recovery peer support in the ED to refer patients into treatment programs including Opioid Overdose Recovery Program (OORP) in New Jersey and several hospitals in Rhode Island in conjunction with the Rhode Island Department of Health and a community recovery center [26,27]. These programs have shown promising results and only have begun tracking long-term outcomes from these interventions (28].

The Project Save Lives initiative is showing that aggressive linkage to substance use services in the ED using on-site recovery peer specialists is an effective program in addressing the opioid epidemic, especially in increasing access to and participation in substance use treatment programs. Of the 101 patients approached by the CRPS in the ED during the evaluation period (105 arrived during intake days minus 4 who died at the hospital), over 30% accessed some type of substance use

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treatment. The vast majority of those who declined immediate treatment agreed to be contacted by a CRPS once they left the hospital. All 3 groups (non-intake days, intake w/ treatment, intake w/o treatment) experienced a decrease in the number of individuals who had repeat overdoses. This trend is similar of that in the community where the number of emergency calls for suspected overdoses received by the county EMS dropped by 20% from 2017 to 2018. This may be due to the availability of naloxone in the community as well as increased knowledge of users regarding fentanyl laced street drugs, especially heroin and cocaine. The average number of repeat overdoses per person also decreased except those who were seen during an intake day and declined treatment. Four people had died from a repeat overdose during the pilot period; however, none that had agreed to enter into treatment. Due to low numbers of repeat overdoses and deaths during the pilot period, the study was not powered to detect differences between groups.

Limitations

This was an observational study and as such is subject to confounding, especially due to selection bias. We encountered several limitations in tracking patients outcomes six months post discharge from the ED index visit. PSL staff only had access to the ED records of the participating hospital system and therefore, it individuals were treated for an overdose in another hospital, we were not able to capture their data. We only had access to substance use treatment data from our participating provider; however, they are the largest treatment provider in the region. Additionally, if any of the individuals (both PSL participants and non-participants) had a fatal overdose outside our Medical Examiner's Office 5 county service area, we were not able to retrieve this information.

Since the initial evaluation, PSL has expanded into several other hospital and free-standing EDs in the community with a goal to have all hospitals in the county participating by early 2020. A follow-up evaluation is being planned to see if the program is effective on a larger scale.

Conclusions

Even though EDs have been struggling with the increased volume of opioid related overdoses, they also provide a unique opportunity to address harm reduction and link patients to substance use treatment services. The PSL program resulted in increasing access to and participation in substance use treatment programs of overdose victims. Immediate engagement by a CRPS with direct linkage to substance use treatment services in the ED is promising to be an effective strategy in addressing the opioid epidemic, especially those who have experienced a nonfatal overdose. Additional research is needed to evaluate the long-term impact of ED engagement programs.

Ethics approval and consent to participate

This project was approved by the University of Florida Institutional Review Board.

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Authors' contributions

All authors contributed to the manuscript. LAB lead study development and implementation, data analysis and manuscript development. KLB assisted in study development, data management, data analysis and manuscript development. RMP assisted in study development and implementation, and manuscript development. SG assisted in statistical testing and manuscript development.

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References

1. Florence CS, Zhou C, Luo F, Xu L (2016) The economic burden of prescription opioid overdose, abuse, and dependence in the United States. Med Care 54: 901-906. Link: https://bit.ly/3faCdZk
2. Rudd RA, Seth P, David F, Scholl L (2016) Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. MMWR 65: 1445-1452. Link: https://bit.ly/3hc7QDB
3. Vivolo-Kantor AM, Seth P, Gladden RM, et al. (2018) Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses — United States, July 2016–Sept 2017. MMWR 67: 279-285. Link: https://bit.ly/3hhztLE
4. Florida Medical Examiner's Commission. Drugs Identified in Deceased Persons, 2016 Report. Florida Department of Law Enforcement, Medical Examiner's Commission.
5. Florida Medical Examiner's Commission. Drugs Identified in Deceased Persons, 2017 Report. Florida Department of Law Enforcement, Medical Examiner's Commission. Link:
6. Bassuk EL, Hanson J, Greene RN, Richard M, Laudet A (2016) Peer-Delivered Recovery Support Services for Addictions in the United States: A Systematic Review. J Subst Abuse Treat 63: 1–9. Link: https://bit.ly/3dRC2BL
7. Kelly JF, Bergman B, Hoeppner BB, Vilsaint C, White WL (2017) Prevalence and pathways of recovery from drug and alcohol problems in the United States population: Implications for practice, research, policy. Drug Alcohol Depend 181: 162–169. Link: https://bit.ly/3cTlkR3
8. Tracy K, Burton M, Miescher A, Galanter M, Babuscio T, et al. (2012) Mentorship for Alcohol Problems (MAP): a peer to peer modular intervention for outpatients. Alcohol Alcoho 47: 42–47. Link: https://bit.ly/3hc6FE4
9. Myrick K, Del Vecchio P (2016) Peer support services in the behavioral healthcare workforce: State of the field. Psychiatr Rehabil J 39: 197–203. Link: https://bit.ly/2MK0SYn
10. Formica SW, Apsler R, Wilkins L, Ruiz S, Reilly B, et al. (2018) Post opioid overdose outreach by public health and public safety agencies: exploration of emerging programs in Massachusetts. Int J Drug Policy 54: 43–50. Link: https://bit.ly/2UvZpct
11. Rudd RA, Seth P, David F, Scholl L (2016) Increases in drug and opioid-involved overdose deaths - United States, 2010–2015. MMWR 65: 1445-1452. Link: https://bit.ly/3dQWVgm
12. Substance Abuse and Mental Health Services Administration (2016) SAMHSA

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Opioid Overdose Prevention Toolkit. HHS Publication No. (SMA) 16-4742. Rockville, MD: Substance Abuse and Mental Health Services Administration.

13. Anchor Recovery Community Center (2019) Anchor ED (Emergency Department). Link: https://bit.ly/3ffQ6Wd

14. Amlani A, McKee G, Khamis N, Raghukumar G, Tsang E, et al. (2015) Why the FUSS (Fentanyl Urine Screen Study)? A cross-sectional survey to characterize an emerging threat to people who use drugs in British Columbia, Canada. Harm Reduct J 12: 54. Link: https://bit.ly/3cQWph2

15. Chou R, Korthuis PT, McCarty D, Coffin PO, et.al. (2017) Management of suspected opioid overdose with naloxone in out-of-hospital settings: a systematic review. Ann Intern Med 167: 867-875. Link: https://bit.ly/3fdns87

16. Chou R, Korthuis PT, McCarty D, Coffin P, et. al. (2017) AHRQ Comparative Effectiveness Reviews. Management of suspected opioid overdose with naloxone by Emergency Medical Services personnel. Rockville (MD): Agency for Healthcare Research and Quality (US); Report No. 17-EHC025-EF.

17. Barry T, Klimas J, Tobin H, Egan M, Bury G (2017) Opiate addiction and overdose: experiences, attitudes, and appetite for community naloxone provision. Br J Gen Pract 67: e267-e273. Link: https://bit.ly/3hc5tk4

18. Jeffery RM, Dickinson L, Ng ND, DeGeorge LM, Nable JV (2017) Naloxone administration for suspected opioid overdose: An expanded scope of practice by a basic life support collegiate-based emergency medical services agency. J Am Coll Health 65: 212-216. Link: https://bit.ly/3f7YTZX

19. Dwyer KH, Walley AY, Sorensen-Alawad A, Langlois BK, Mitchell PM, et al. (2013) Opioid Education and Nasal Naloxone Rescue Kit Distribution in the Emergency Department. Ann Emerg Med 62: S123.

20. Bohnert AS, Bonar EE, Cunningham R, Greenwald MK, et. al. (2016) A pilot randomized clinical trial of an intervention to reduce overdose risk behaviors among emergency department patients at risk for prescription opioid overdose. Drug Alcohol Depend 163: 40-47. Link: https://bit.ly/3cQVNbe

21. Guan W, Liu T, Baird JR, Merchant RC (2015) Evaluation of a brief intervention to reduce the negative consequences of drug misuse among adult emergency department patients. Drug Alcohol Depend 157: 44-53. Link: https://bit.ly/2YoVL5c

22. D'Onofrio G, O'Connor PG, Pantalon MV, Chawarski MC, et.al. (2015) Emergency department initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. JAMA 313: 1636-1644. Link: https://bit.ly/2Alctun

23. D'Onofrio G, Chawarski MC, O'Connor PG, Pantalon MV, Busch SH, et al. (2017) Emergency Department-Initiated Buprenorphine for Opioid Dependence with Continuation in Primary Care: Outcomes During and After Intervention. J Gen Intern Med 32: 660–666. Link: https://bit.ly/37jNmUE

24. Weiner SG, Raja AS, Bittner JC, Curtis KM, Weimersheimer P, et.al. (2016) Opioid related policies in New England Emergency Departments. Acad Emerg Med 23:1086-1090. Link: https://bit.ly/2zpgEVG

25. Samuels EA, Dwyer K, Mello MJ, Baird J, Kellogg AR, et sl. (2016) Emergency department-based opioid harm reduction: Moving physicians from willing to doing. Acad Emerg Med 23: 455-465. Link: https://bit.ly/2MLm9Rw

26. Waye KM, Goyer J, Dettor D, Mahoney L, Samuels EA, et al. (2019) Implementing peer recovery services for overdose prevention in Rhode Island: An examination of two outreach-based approaches. Addict Behav 89: 85-91. Link: https://bit.ly/2XOtgiz

27. Powell KG, Treitler P, Peterson NA, Borys S, Hallcom D (2019) Promoting opioid overdose prevention and recovery: An exploratory study of an innovative intervention model to address opioid abuse. Int J Drug Policy 64: 21-29. Link: https://bit.ly/37g0470

28. Samuels EA, Bernstein SL, Marshall, BDL, Krieger M, et al. (2018) Peer navigation and take-home naloxone for opioid overdose emergency department patients: Preliminary patient outcomes. J Subst Abuse Treat 94: 29-34. Link: https://bit.ly/3hdvgIQ

Citation: Bilello LA, Lukens Bull K, Gautam S, Pomm R (2020) Project Save Lives: Rapid treatment protocol using peer recovery specialists in the emergency department. J Addict Med Ther Sci 6(1): 052-057. DOI: https://dx.doi.org/10.17352/2455-3484.000038