



Short report

Brief overdose education can significantly increase accurate recognition of opioid overdose among heroin users



Jermaine D. Jones^{a,*}, Perrine Roux^{a,b,c,d}, Sharon Stancliff^e,
William Matthews^e, Sandra D. Comer^a

^a Division on Substance Abuse, New York State Psychiatric Institute, Columbia University, College of Physicians and Surgeons, 1051 Riverside Drive, New York, NY 10032, United States

^b INSERM U912 (SESSTIM), Marseille, France

^c Université Aix Marseille, IRD, UMR-S912, Marseille, France

^d ORS PACA, Observatoire Régional de la Santé Provence Alpes Côte d'Azur, Marseille, France

^e Harm Reduction Coalition, 22 West 27th Street, New York, NY 10001, United States

ARTICLE INFO

Article history:

Received 2 November 2012

Received in revised form 1 May 2013

Accepted 14 May 2013

Keywords:

Naloxone

Opioid overdose

Heroin

Overdose prevention

ABSTRACT

Background: In an effort to increase effective intervention following opioid overdose, the New York State Department of Health (NYSDOH) has implemented programs where bystanders are given brief education in recognizing the signs of opioid overdose and how to provide intervention, including the use of naloxone. The current study sought to assess the ability of NYSDOH training to increase accurate identification of opioid and non-opioid overdose, and naloxone use among heroin users.

Methods: Eighty-four participants completed a test on overdose knowledge comprised of 16 putative overdose scenarios. Forty-four individuals completed the questionnaire immediately prior to and following standard overdose prevention training. A control group ($n = 40$), who opted out of training, completed the questionnaire just once.

Results: Overdose training significantly increased participants' ability to accurately identify opioid overdose ($p < 0.05$), and scenarios where naloxone administration was indicated ($p < 0.05$). Training did not alter recognition of non-opioid overdose or non-overdose situations where naloxone should not be administered.

Conclusions: The data indicate that overdose prevention training improves participants' knowledge of opioid overdose and naloxone use, but naloxone may be administered in some situations where it is not warranted. Training curriculum could be improved by teaching individuals to recognize symptoms of non-opioid drug over-intoxication.

© 2013 Elsevier B.V. All rights reserved.

Introduction

Opioid overdose is a significant concern in the New York City (NYC) area. Emergency department (ED) visits related to prescription opioids nearly doubled between 2004 and 2009 (age-adjusted rate from 55 to 110 per 100,000 New Yorkers) and unintentional poisoning deaths increased by approximately 20%. Although the number of ED visits related to heroin has remained stable during this time frame (152 per 100,000 New Yorkers), opioids in general were the most commonly noted drug in cases of unintentional deaths (NYC Department of Health and Mental Hygiene, 2011).

These data highlight the need for effective strategies to reduce opioid-related mortality. In an effort to address this concern, programs have been implemented where non-medical persons are given brief education in recognizing the signs of opioid overdose. The curriculum also teaches proper overdose first aid including the use of naloxone, which is provided should they observe an overdose (Doe-Simkins, Walley, Epstein, & Moyer, 2009; Hurley, 2011).

Naloxone is a short-acting opioid receptor antagonist effective in counteracting the respiratory depression that can lead to death during opioid overdose (White and Irvine, 1999). Although medical professionals have long used naloxone, peer-focused overdose prevention programs have endeavoured to increase access to this life-saving medication. Yet, concerns have been raised regarding this naloxone dispensing practice. Coffin and colleagues (2003) reported that 37% of health care providers indicated that they would not consider prescribing naloxone to patients at risk of heroin overdose. One common concern among prescribers is

* Corresponding author at: 1051 Riverside Drive (Unit 120), New York, NY 10032, United States. Tel.: +1 212 543 5153; fax: +1 212 543 6018.

E-mail address: JermaineDJones@gmail.com (J.D. Jones).

that drug users would not know how to accurately identify opioid overdoses (Tobin, Gaasch, Clarke, MacKenzie, & Latkin, 2005). Researchers have attempted to address this concern. Gaston and colleagues (2009) trained 70 opioid-dependent patients in recognizing and managing opioid overdose. Using pre- and post-training assessments, they found that the number of correct responses significantly increased immediately after training. In another study, 239 treatment-seeking opioid users recruited from 20 sites across England were similarly assessed regarding their knowledge of overdose management and naloxone administration before, and immediately following training (Strang et al., 2008). These investigators found significant improvements in: knowledge of risk factors for overdose, characteristics of overdose, and appropriate overdose management.

Researchers at Yale were the first to develop and validate a tool to quantify knowledge of opioid overdose and naloxone use, the Brief Overdose Recognition and Response Assessment (BORRA; Green, Grau, & Heimer, 2006). In a subsequent investigation, they found that participants who received a non-standardized overdose prevention training at one of six US sites recognized more opioid overdose scenarios accurately and instances where naloxone was indicated in comparison to untrained participants (Green, Heimer, & Grau, 2008). Opioid overdose recognition scores among their trained sample did not significantly differ from medical experts.

The NYSDOH has developed peer-based overdose education programs to distribute naloxone to non-medical personnel, provided they have been trained through a registered program. Currently in the US there are no national guidelines for the implementation of these programs. As such, the program specifics, such as the training curriculum, can vary from program to program. Therefore, it is important to perform an evaluation of the knowledge gained from overdose training using a semi-structured overdose education training, such as that mandated by the NYSDOH. The present study sought to combine the methodology used in many of the aforementioned studies in order to perform an assessment of opioid overdose training in NYC, where opioid abuse and overdose is highest in the state (SAMHSA, 2012). The goals were to: obtain a baseline of overdose knowledge among current heroin users who have not received overdose prevention training, observe if training improves that knowledge, and provide the field with approaches to improving the educational value of these programs.

Methods

Recruitment and inclusion criteria

Participants were recruited through advertisements in local newspapers, Craigslist.org, and through word-of-mouth. Pre-screening interviews were conducted by research assistants, followed by a more extensive assessment by a research psychologist. Participants were required to be current heroin users between the ages of 21 and 65 years, and able to fluently speak and read English. Potential participants were excluded for active psychopathology that might interfere with their ability to provide informed consent, history of severe learning impairment, or previous basic cardiac life support (BCLS), First-Aid, or overdose prevention training.

Overdose prevention training

In total, five training sessions were shadowed in order to gather study data. All trainings occurred between April 2011 and December 2012. Trainings were administered by a single

physician's assistant with the Harm Reduction Coalition (HRC). Although the trainer was aware that a skills assessment would occur, they were not provided with the name of the task, or informed of which aspects of the training it would assess.

Three trainings were conducted in the lobby of the Washington Heights Corner Project, a harm reduction outreach facility. One training was conducted directly in front of Washington Heights Corner Project and another in a meeting room at the HRC office in Midtown Manhattan. Following training, individuals were provided with an overdose response kit that included two separate doses of: intranasal (1 mg/ml) or intramuscular (0.4 mg/ml) formulations of naloxone, a prescription to carry naloxone, and a training certification card. The HRC staff presented a semi-structured lecture designed to address the NYSDOH-required overdose topics: (1) risk factors for opioid overdose, (2) signs of overdose, and (3) how to respond to an overdose. Complete training guidelines can be found online (NYSDOH, 2006).

Assessments

Brief overdose recognition & response assessment (Green et al., 2006)

The BORRA asks participants to read 16 putative overdose scenarios. Based on the presenting symptoms of the presumed overdose victim, they were asked to decide whether these symptoms were: definitely/probably an opioid overdose, an overdose but NOT an opioid overdose, not an overdose, unsure/not enough info, and if naloxone should, or should not be administered.

Substance use inventory (Comer, Sullivan, Whittington, Vosburg, & Kowalczyk, 2008)

This questionnaire was used to determine quantity and frequency of recent drug use and gathered participants' demographic information, psychiatric history, and experience with drug overdose. Participants were also asked to rate their ability to successfully deliver naloxone on a scale from 0 (not confident) to 10 (completely confident).

Participants

Participants in the trained condition completed the above questionnaires prior to, and following overdose prevention training (50\$ compensation was provided). A convenience sample of current heroin users screening at our Substance Use Research Center, opted not to wait until the next training, and chose to complete the BORRA that day and receive 25\$. Motivation to complete training and learn more about overdose prevention may vary significantly. As such, the researchers felt that obtaining knowledge of opioid overdose among individuals not interested in training would be an informative comparison.

Statistics

Paired-samples *T*-tests were utilized to compare pre- and post-training differences in: accurate identification of the signs of opioid overdose, and naloxone indication knowledge quantified using the BORRA. Independent-samples *T*-tests were used to compare post-training scores against those of untrained opioid users. Respectively, independent-samples *T*-tests and Pearson χ^2 statistic were used to observe for group differences among the continuous and categorical demographic data. Bivariate correlation analyses were also performed in order to examine the relationship between a number of demographic and training variables, and pre-to-post training change in BORRA score.

Download English Version:

<https://daneshyari.com/en/article/7514231>

Download Persian Version:

<https://daneshyari.com/article/7514231>

[Daneshyari.com](https://daneshyari.com)