



Jesse L. Goldshear¹; Kelsey Simpson¹; Lynn Wenger²; Alex H. Kral²; Ricky N. Bluthenthal¹

(1) Department of Preventive Medicine, Keck School of Medicine, USC, Los Angeles, CA; (2) Behavioral Health Division, RTI International, San Francisco, CA.

Background

- Studies have reported dietary deficiencies and food insecurity among people who inject drugs (PWID) (Strike et al., 2012; Schmitz et al., 2016).
- There is reason to suspect that PWID might be subject to poor overall diet, as well as nutrient deficiencies due to the nature of substance use and related social-ecological characteristics.
- Chronic malnutrition can lead to negative health sequelae and can exacerbate comorbidities such as HIV.

Purpose

- To explore nutritional differences and food consumption habits among a sample of PWID.

Methods

- PWID were recruited from community settings in Los Angeles and San Francisco, CA (N=976) between 2016 and 2017 as part of a larger RCT on the 'Change the Cycle' intervention (Strike et al., 2014). Participants were eligible if they were 18 years of age or older, and reported at least one injection use in the last 30 days.
- Eligible and consenting participants completed a baseline interview on multiple domains including demographics, current and past drug use patterns, motivations for drug use, adverse events, and food consumption habits.
- Items concerning food consumption were modeled upon questions appearing in the 2015 National Health Interview Survey from the Centers for Disease Control and Prevention.
- This analysis includes participants who completed a baseline interview.

Analysis

- Descriptive statistics were conducted on participant demographics and overall drug use and food consumption patterns.
- ANOVAs were used to compare mean food consumption from different dietary groups between PWID who had different drugs of primary use (i.e. methamphetamine versus opiates). Scheffe tests were used post hoc to assess differences between groups.

Results

- Though the majority of participants engaged in polydrug use, we used the following method to categorize them by "primary drug of choice".
- Relative frequency of use across three major drug types was compared: opiates, amphetamines, and cocaine. The substance which was used at the highest relative frequency was considered the "drug of choice" for each participant (Table 3).

Table 1: Baseline Demographic and Drug Use Characteristics (N = 976)

Characteristic	n (%) or Mean (SD)
Gender	
Male	737 (75.5%)
Female	225 (23.1%)
Transgender	9 (0.9%)
Other	5 (0.5%)
Race	
Black	199 (20.4%)
White	402 (41.2%)
Latino(a)	232 (23.8%)
Other	143 (14.7%)
Age	42.8 (12.1)
Homeless	
Yes	810 (83.0%)
No	166 (17.0%)
Drug Use Frequency, Past 30 Days	Mean (SD)
Opiates	100.2 (87.2)
Methamphetamine	55.4 (27.2)
Cocaine/Crack	32.2 (72.0)

Table 2: Food Consumption Compared to USDA Guidelines (N = 976)

Food Group	USDA Guideline for Daily Consumption	n (%) Sample Meeting Guideline
Protein	Men: 5 ½ - 6 ½ oz. Women: 5 - 5 ½ oz.	< 85 (12.1%) < 16 (7.3%)
Dairy	Men: 3 cups Women: 3 cups	< 385 (52.7%) < 104 (56.6%)
Fruits	Men: 2 cups Women: 1 ½ - 2 cups	< 80 (11.0%) < 97 (43.3%)

- 67.6% (n = 655) of the sample consumed greater than 2 sugary drinks per day in the prior 30 days

Table 3: Food Consumption Frequency Differences by Primary Drug of Choice (N = 976)

Food Group	Opiates Mean (SD)	Methamphetamine Mean (SD)	Cocaine Mean (SD)	No Primary Drug Mean (SD)	p
Protein	52.35 (30.04)	50.86 (30.15)	53.71 (31.99)	56.54 (32.46)	0.611
Fruit	22.22 (25.63)	21.09 (19.03)	20.59 (20.00)	26.98 (34.53)	0.376
Dairy	38.68 (25.96)	32.34 (25.70)	37.07 (27.98)	34.48 (27.03)	0.019
Added Sugar	60.77 (51.81)	66.76 (58.42)	57.31 (51.91)	82.67 (72.65)	0.014

Summary

- While participants consumed a wide range of food, most didn't meet USDA dietary guidelines for daily consumption of proteins, fruit, and dairy.
- Participants reported consumption of a high amount of added sugars through soda and sugar-sweetened fruit drinks.
- There were few significant differences in food consumption by primary drug of use (p < 0.05). Those with no primary drug of choice consumed significantly more mean added sugars than did opiate users. Primarily methamphetamine users consumed significantly less mean dairy than did primarily opiate users.

Limitations

- Quality of self-report data is limited, and many food-related variables contained extreme and outlying data points.

Conclusions

- Overall diet quality among this sample was poor, and may be due to both substance use specific behaviors as well as a high frequency of homelessness and low income in our sample.
- PWID are also a group at high risk for acquiring HIV, a disease which can be worsened by poor diet and nutrient deficiencies.
- Due to the lack of prior research in this field, we feel that this urgent issue warrants further study.

References

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For further information, contact:
Jesse Goldshear, MPH
Department of Preventive Medicine
Keck School of Medicine, University of Southern California
2001 N. Soto Street,
Los Angeles, California 90033-9045
Phone:
E-mail: goldshea@usc.edu
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