

Determinants of psychological distress during the COVID-19 pandemic among people who use drugs in Montreal, Canada

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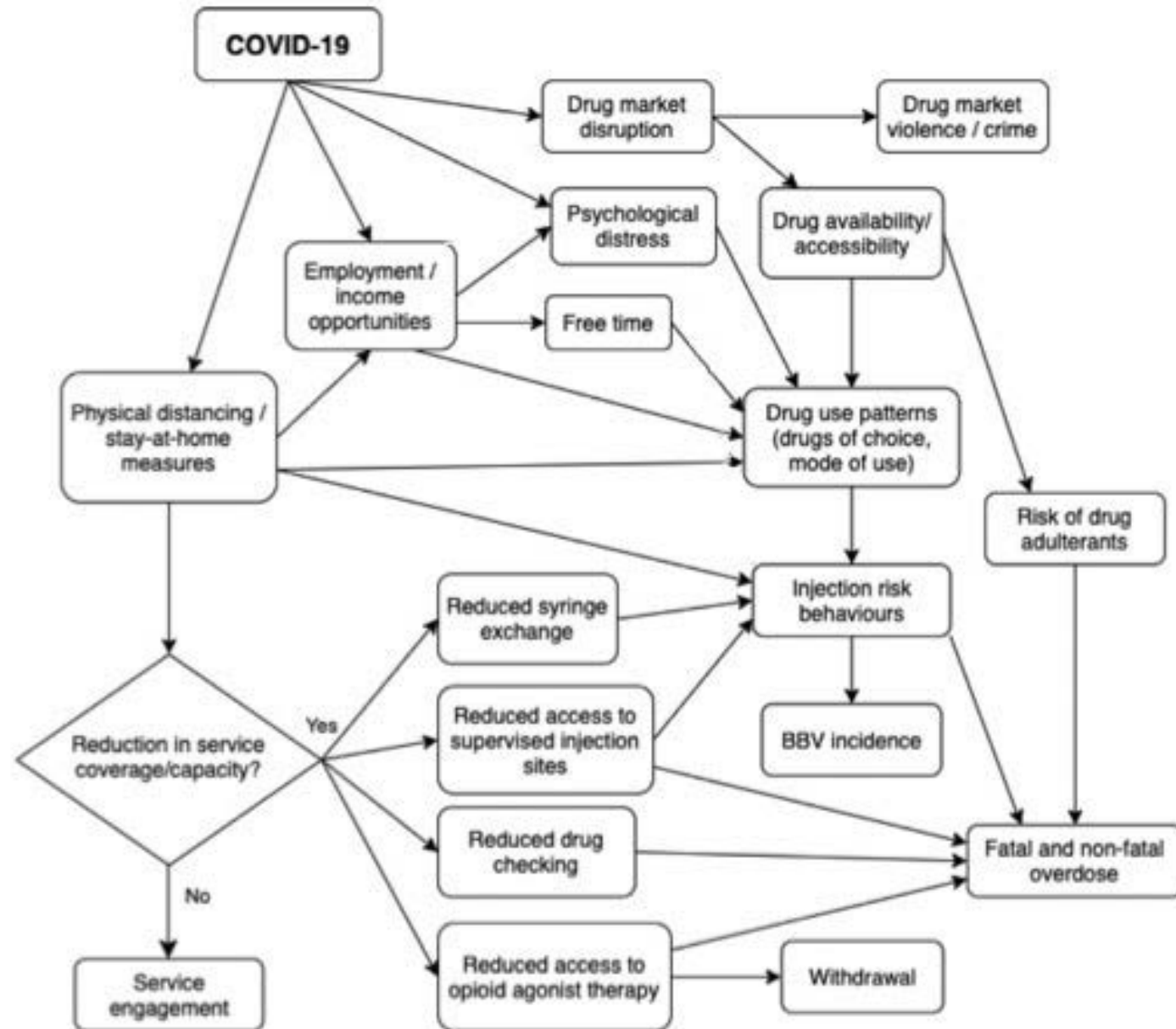
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COVID-19 pandemic and people who use drugs (I)

- COVID-19 is a global pandemic caused by the virus SARS-CoV-2 leading to respiratory disease that associated with high morbidity and mortality.
- The pandemic has disproportionate impacts on vulnerable populations, both directly – through increased risk of infection and associated mortality, and indirectly – through broader unmet needs such as:
 - health and social services restructure their activities to minimize interactions;
 - health services and staff become over-burdened with pandemic-related activities such as diagnostic and treating the disease.

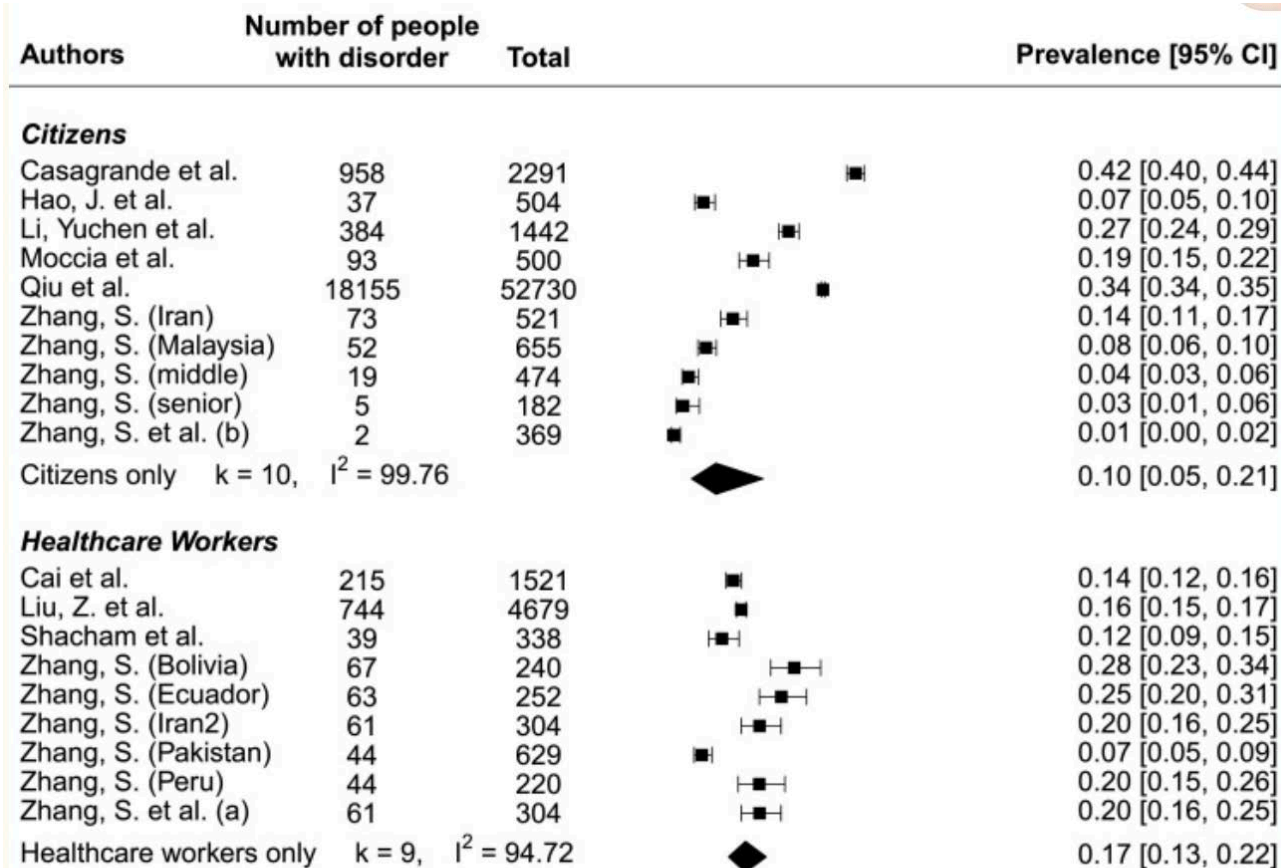
COVID-19 pandemic and people who use drugs (II)



COVID-19 and mental health challenges

Prevalence of symptoms of depression, anxiety, insomnia, posttraumatic stress disorder, and psychological distress among populations affected by the COVID-19 pandemic: A systematic review and meta-analysis

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- COVID-19 pandemic has been associated with mental health challenges related to the morbidity and mortality caused by the disease and to mitigation activities, including the impact of physical distancing and social isolation measures.

- Psychological impacts of the COVID-19 pandemic in general population have been widely reported

- Data about psychological impact of the COVID-19 pandemic is limited in population of PWUD.

Study Aim

- Determine the prevalence and correlates of psychological distress among people who use drugs during the pandemic period in urban settings and how these differ by mode of drug administration.

METHODS

Recruitment

Active participants of an existing cohort study of PWID

May-June 2020



eligibility criteria: age ≥ 18 ; past-6-month injection drug use

Sep-Dec 2020



People reporting past-year illicit drug use from community service sites



Measures

- **Primary outcome variable** - past month **psychological distress** measured with Kessler K6 scale (cut off score **13 or higher** has been used to identify persons with nonspecific serious psychological distress).
- **Potential correlates** (based on our hypotheses elaborated following a literature review) – **demographic characteristics** (age, gender), **changes in drug use patterns** (type of drug use, mode of drug use, changes in drug use frequency, overdose and opioid withdrawal) and **survival needs** (food insecurity, housing and income).

Statistical Analysis

- Descriptive statistics overall and stratified by mode of drug use in regards to psychological distress (Chi-Square, Fisher's exact and T-test)
- Logistic regression (OR, 95% CI): covariates considered for inclusion in the multivariable model demonstrated a marginal association with the outcome in univariate analyses ($p < 0.1$). A backward elimination approach was used to determine the final multivariable model; variables were retained if they demonstrated a statistically significant association with the outcome ($p < 0.05$).
- Final multivariable model was stratified by the mode of drug administration.

RESULTS

Table 1. Study participant characteristics by psychological distress level – Demographic characteristics (N=226)

Demographic characteristic	Total N=226	Psychological distress	
		Yes (N=56)	No (N=170)
Age, mean (SD)	47.9 (10.7)	43.5 (10.3)	49.3 (10.5)
Gender			
Male	173 (76.5)	37 (66.1)	136 (80.0)
Female	49 (21.7)	18 (32.1)	31 (18.2)
Other	4 (1.8)	1 (1.8)	3 (1.8)

Table 1. Study participant characteristics by psychological distress level – Survival needs (N=226)

Survival needs (change since health emergency was declared)	Total N=226	Psychological distress	
		Yes (N=56)	No (N=170)
Food insecurity			
Went hungry more often	85 (37.6)	30 (53.6)	55 (32.5)
Same as usual	112 (49.5)	18 (32.1)	94 (55.3)
Less often than usual	29 (12.8)	8 (14.3)	21 (12.3)
Housing			
Unstable	71 (31.4)	21 (37.5)	50 (29.4)
Stable	155 (68.6)	35 (62.5)	120 (70.4)
Monthly income			
Decreased	82 (36.3)	22 (39.3)	60 (35.3)
Didn't change	106 (46.9)	24 (42.8)	82 (48.2)
Increased	38 (16.8)	10 (17.9)	28 (16.5)
Survival income			
Before COVID-19 only	12 (5.3)	6 (10.7)	6 (3.5)
Before and after COVID-19	25 (11.1)	4 (7.1)	21 (12.3)
After COVID-19 only	3 (1.3)	1 (1.8)	2 (1.2)
No survival income B&A	186 (82.3)	45 (80.3)	141 (82.9)

Table 1. Study participant characteristics by psychological distress level – Drug use behaviours (N=226)

Drug use behaviour	Total N=226	Psychological distress	
		Yes (N=56)	No (N=170)
Drug of choice			
Opiates	35 (15.4)	7 (12.5)	28 (16.4)
Stimulants	93 (41.1)	30 (53.6)	63 (37.1)
Other	98 (43.4)	19 (33.9)	79 (46.6)
Injected drugs in the p6m			
Yes	94 (41.6)	20 (35.7)	74 (43.5)
No	132 (58.4)	36 (64.3)	96 (56.5)
Change in overall use of non-injection drugs			
Decreased	52 (23.0)	7 (12.5)	45 (26.5)
Has not changed	93 (42.5)	20 (35.7)	73 (42.9)
Increased	81 (35.8)	29 (51.8)	52 (30.6)
Change in overall use of injection drugs			
Decreased	32 (14.2)	2 (3.6)	30 (17.7)
Has not changed	157 (69.4)	38 (67.8)	119 (70.4)
Increased	36 (15.9)	16 (28.6)	20 (11.8)
Overdose frequency changed since COVID emergency			
Has not changed	208 (92.0)	46 (82.1)	162 (95.3)
Increased	9 (4.0)	7 (12.5)	2 (1.2)
Decreased	9 (4.0)	3 (5.3)	6 (3.5)
Frequency of opioid withdrawal changed (N=170 used opioids)			
No	144 (84.7)	22 (39.3)	120 (70.5)
Increased	20 (11.7)	13 (23.2)	7 (4.1)
Decreased	6 (3.5)	0 (0)	6 (3.5)
Alcohol use			
Yes	159 (70.4)	46 (82.1)	113 (66.5)
No	67 (29.6)	10 (17.8)	57 (33.5)

Table II. Multivariable associations with severe psychological distress stratified by injection drug use

Characteristic	Injected drugs	Didn't inject drugs
	aOR final model (95% CI)	aOR final model (95% CI)
Age	-	0.94 (0.91, 0.97)
Food insecurity		
Same as usual	Ref.	Ref.
Went hungry more often	6.16 (1.71, 22.20)	2.64 (1.04, 6.72)
Less often than usual	2.26 (0.31, 16.25)	1.71 (0.51, 5.75)
Change in overall use of non-injection drugs		
Decreased	Ref.	-
Has not changed	5.12 (0.76, 34.5)	
Increased	8.15 (1.22, 54.21)	
Overdose changed since COVID-19 emergency		
No	Ref.	-
Increased	9.43 (1.39, 64.19)	
Decreased	5.58 (0.79, 39.24)	
Alcohol use in the past 6 months		
No	-	Ref.
Yes		5.67 (1.55, 20.77)

Conclusions

- One of few studies to assess the mental health outcomes of the SARS-CoV-2 pandemic in the population of PWUD
- Food insecurity was a key predictor of severe psychological distress among both injection and non-injection drug users.

Our findings suggest:

- PWUD overall and especially in the setting of COVID pandemic would likely benefit from interventions that work to improve access to food and social support services, including addiction treatment programs which may reduce the adverse effect of ongoing drug use on hunger.
- Clinicians should regularly assess symptoms of mental health disorders including psychological distress and depression in people suffering from a substance use disorder to prevent overdose cases among PWID which is among leading causes of death in this population.
- Research on consequences and treatment outcome of concurrent use of alcohol is needed to inform the development of more effective prevention or intervention programs.

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