THE CEDAR PROJECT

The Cedar Project: Psychological health changes following culturally safe management approach to support hepatitis C treatment among Indigenous Peoples who use(d) drugs in BC.

Mazzuca A, Pooyak S, Zamar, D, Pearce ME , Jongbloed K, Thomas V, Schechter MT, Yoshida E, Spittal PM,
For the Cedar Project Partnership

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BACKGROUND

Settler colonialism continues to place immeasurable burdens on Indigenous Peoples who use drugs. High HCV rates and toxic drug deaths are disproportionality affecting Indigenous Peoples, leading to immense grief and harm to their mental wellbeing.

HEP C BLANKET PROGRAM

- Cedar Project's Indigenous governance developed the Blanket Program to support HCV treatment and connections to physical, emotional, mental & spiritual resources/services.
- The Blanket Program is a two-site pilot study nested in an Indigenous governed cohort on the traditional lands of Musqueam, Squamish, and Tsleil-Waututh (Vancouver) and Lheidli T'enneh (Prince George) Peoples.
- 92% (55/60) of participants were HCV-free 12 weeks post-treatment, and 91% (50/55) remained HCV-free within 9 months post-treatment.
- Participants shared the psychological benefits from receiving culturally safe care and curing HCV.

STUDY AIM

Examine the health impacts of program supporting HCV cure.

METHOD

Enrollment

- 60 participants enrolled between 2017-2019, with 57 participants in analysis (completed data)
- 53% women, 32% HIV co-infected & 78% used injection drugs in past month.

Main outcomes

- Psychological distress assessed by Symptom Checklist-90 Revised
- Post-traumatic stress response (PTSR) measured by Civilian version measured post-traumatic stress response (PTSR).
- Resilience captured by Connor-Davidson Resilience Scale
- Measured at baseline and monthly, on average, during and after treatment (9 months).

Analytic approach

- Examined absolute mean change scores (continuous) from baseline to treatment and treatment to post-treatment
- Generalized estimating equation modeling was used to examine effects on psychological health and Cohen's D paired sample test measured effect size.
- Results were stratified by city and sex adjusting for confounders (age, location, and sex).

RESULTS

Outcome	Adj. β	95%CI	*P*	Effect size
Psychological Distress				
Treatment *vs* Baseline	-0.22	-0.36, -0.08	< **0.01**	-0.36
Post-treatment *vs* Treatment	0.02	-0.06, 0.11	0.57	-0.05
PTSR				
Treatment *vs* Baseline	-3.05	-6.25, 0.14	**0.06**	-0.24
Post-treatment *vs* Treatment	-0.30	-1.85, 1.25	0.70	0.02
Resilience				
Treatment *vs* Baseline	0.98	-2.67, 4.64	0.59	0.07
Post-treatment *vs* Treatment	1.95	-0.14, 4.04	0.07	0.07

Adjusted results (age, location & sex)

- Significant but small decrease in psychological distress and marginal decrease in PTSR were observed in treatment relative to baseline.
- No changes were reported post-treatment relative to treatment.
- Only marginal changes observed for resilience post-treatment relative to treatment.
- No differences were reported when removed participants who were HCV RNA positive at SVR-12 and end of study (n =6).

KEY FINDINGS

	Adj. β	95%CI	*P*	Effect size
Stratified by location				
Psychological Distress - Vancouver				
Treatment *vs* Baseline	-0.08	-0.25, 0.09	0.36	-0.12
Post-treatment *vs* Treatment	0.03	-0.10, 0.15	0.67	0.04
Psychological Distress – Prince George				
Treatment *vs* Baseline	**-0.42**	**-0.64, -0.20**	**<0.01**	**- 0.63**
Post-treatment *vs* Treatment	0.02	-0.10, 0.15	0.70	-0.06
PTSR – Vancouver				
Treatment *vs* Baseline	0.75	-3.63, 5.13	0.74	0.05
Post-treatment *vs* Treatment	0.16	-2.08 2.39	0.89	-0.09
PTSR – Prince George				
Treatment *vs* Baseline	**-8.10**	**-12.0, -4.30**	**<0.01**	**- 0.59**
Post-treatment *vs* Treatment	-0.74	-2.84, 1.35	0.49	-0.06

Stratifying by location

- Only observed significant decreases in Price George for psychological distress and PTSR during treatment relative to baseline.
- Decreases in mean scores represent a medium decrease in distress/trauma response as shifted, on average, by less than 1 SD.
- No significant differences were reported post-treatment relative to treatment.
- No significant change in resilience was observed, for either location (not reported here).

KEY FINDINGS

- Stratifying by sex, we found a significant decrease in psychological distress among males only during treatment relative to baseline (Adj. β: -027; 95%CI -0.41, -0.13), representing a small decrease in distress (d = -0.41; 95%CI: -0.626 - 0.189).
- At participant-level, we standardized individual differences and observed 6 females (5 Vancouver) and 1 male (Vancouver) reporting higher distress/PTSR and/or lower resilience (range: 0.5, 1.5 SD) across two/three measures.
- Baseline scores were below cut-off for psychological distress/PTSR.
- Female participants experienced various forms of colonial violence: gender-based violence, unsafe housing, survival sex work and forced removal of children (past/present).

CONCLUSION

- Culturally safe case management supporting HCV cure has the potential to uphold (w)holistic health.
- Implementation discrepancies in culturally safe care between locations likely contributed to differences in findings, such as staffing resources. Responsive evaluation will be essential in sustaining a culturally safe practice.
- To fully support the mental wellness needs of Indigenous Peoples who use drugs requires Indigenous-led harm reduction/safe supply and healing-centered programming.
- Further structural interventions such as Indigenous-centered housing initiatives, decriminalization of drug use, and child welfare reforms are urgently needed to decrease colonial violence experienced by Indigenous families.