Evaluation of an HCV Awareness-Raising and Testing Intervention in PWID

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Background

Catalonia has a comprehensive harm-reduction network, comprising 11 different supervised injection sites located in open drug scenes among other services caring for close to 6000 PWID in 2017. Their characteristics[1] are depicted in **Figure 1**. Over 1900 PWID per year attend *El Local*, with an HCV seroprevalence of 81.3% and a prevalence of HCV viremic infection of 58.9%.[2]

Several approaches have been developed to solve the lack of information on screening, diagnosis and treatment in PWID including the promotion of health through their training in different areas of knowledge on HCV infection. Evidence shows that the use of educational sessions, accompanied by screening tests, increase assessment and adherence to HCV treatment and contribute to a simplification of the cascade of care.[3,4]

Our aim was to evaluate the results of an awareness-raising and testing intervention aimed to improve the knowledge and attitudes towards HCV among PWID.

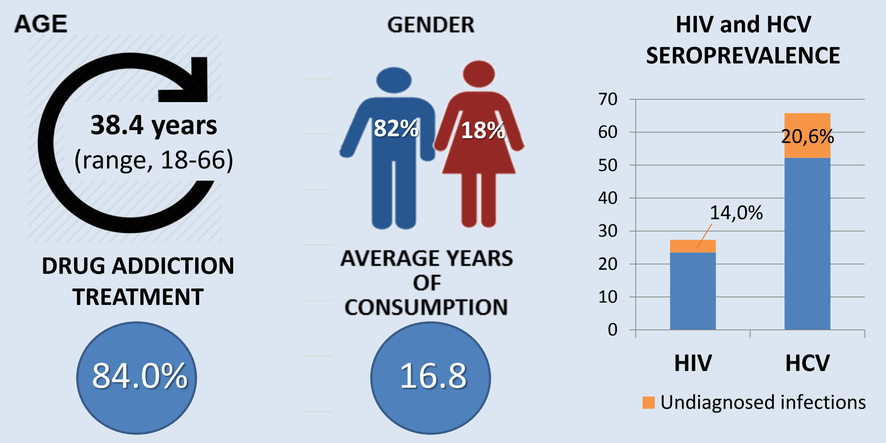

Figure 1. Characteristics of PWID in harm-reduction centers in Catalonia.

Description of the intervention

A two-hour educational session was designed based on the Social Action theory and evaluated through a 23-item questionnaire adapted by REDUCE and validated in Catalonia (SAP-HEP). This questionnaire consisted of three subscales (treatment, transmission routes and risk behaviours) administered pre-intervention, post-intervention and a one month after the intervention. The intervention was based on the HCV training model proposed by the European Network of Social Inclusion and Health and the Keeping Safe project, and designed to:

- empower PWID to increase their knowledge about the HCV, adopt behavioral changes and prevent infection and/or reinfection, as well as assessing the need to be referred to specialists
- break the stigma and myths commonly associated with HCV disease and treatment
- improve the linkage to care and adherence to treatment.

The intervention was assessed through non-parametric Wilcoxon Signed-Ranks test and the Cohen's *d* effect sizes were calculated.

During the Hep*Cdetect* II study, PWID who had injected over the previous 6 months were recruited at *El Local* harm reduction center (N=31, in groups of 4 to 6). Participants received economic incentives and were offered HCV screening (antibody rapid test and RNA testing from dried blood spots).[2]

Effectiveness

Study participants had a mean age of 47 years and 80.6% were men, and all completed pre- and post-test assessments.

Comparison of scores obtained before and after the intervention showed that knowledge increased in all three subscales (**Figure 2, Table 1**):

- "Transmission Routes" scores showed a moderate/high magnitude increase (*p*=0.017; Cohen's *d*=0.45). This increase was seen in all items, except the 24th item (use of condoms in sexual intercourses).
- The same trend was observed in the "Risk Behaviours" subscale, which showed an increase of moderate/high magnitude (*p*=0.029; Cohen's *d*=0.44). However, changes in effects sizes were higher in items 17 (reuse of injecting paraphernalia; Cohen's *d*=0.57) and 28 (hepatitis symptoms; Cohen's *d*=0.75).
- High magnitude increase changes were seen in the in the "Treatment" subscale scores (*p*=0.004; Cohen's *d*=0.63).

The knowledge improvement was also retained one month after the intervention.

Participants agreed to participate in HCV testing. Those who were positive for HCV RNA were referred to primary care or the specialist.

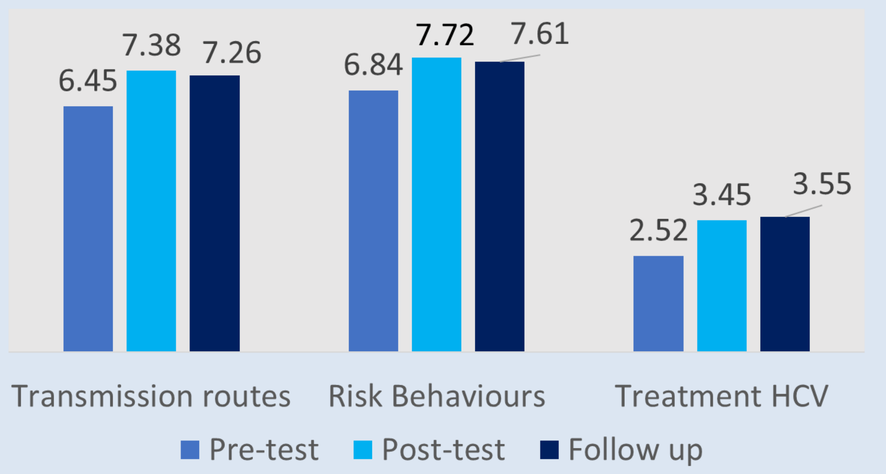

Figure 2. Knowledge trends across the pre-test, post-test and follow-up examinations.

Conclusions and next steps

- This participative awareness-raising intervention coupled with testing has proven to be effective in terms of the degree of retention of knowledge by PWID, in reducing the stigma and myths associated to treatment, and in improving linkage to care.
- The SAP-HEP tool showed to be effective for the assessment of knowledge and attitudes towards HCV.
- Accordingly, this intervention will be expanded to the harm-reduction network.

Table 1. Evolution of the knowledge levels across the pre-test, post-test and follow-up.

	Pre-trainning	Post-trainning	p	Cohen's D	Follow-up	p	Cohen's D
Transmission routes	6.45±2.05	7.38±1.15	0.017	0.45	7.26±1.18	0.040	0.40
Risk behaviors	6.87±1.94	7.72±1.41	0.029	0.44	7.61±1.41	0.026	0.35
Treatment	2.52±1.48	3.45±0.77	0.004	0.63	3.55±0.72	0.001	0.70

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