

# Changes in Quality of Life: Before and After Hepatitis C Treatment

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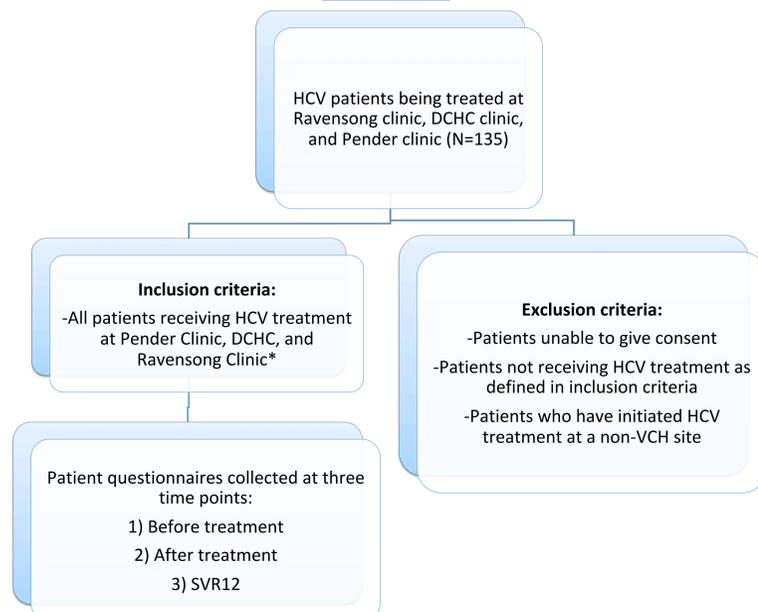
## Introduction

This study looks at whether or not there are any changes in the quality of life after treatment of hepatitis C in the Downtown Eastside (DTES) population in Vancouver, especially with the use of the new direct antiviral agents (DAA). The introduction of DAAs has changed the treatment of hepatitis C dramatically- the efficacy has increased significantly, the side effect profiles are much more tolerable, and the regimens are more convenient<sup>1</sup>. Specifically, interferon (IFN)-free regimens are now being heavily favored, as multiple studies have shown a decrease in quality of life while on treatment with IFN. This was reflected in a study by Younossi et al<sup>2</sup>, where they demonstrated that patients on an IFN-free regimen had a significantly higher EQ5D score, and also in a study by Bianchi et al, where they concluded that active interferon treatment caused considerable distress in HCV patients<sup>3</sup>. However, despite these advances, specific populations such as DTES patients may not respond as successfully due to complex issues such as mental health conditions and substance abuse. In fact, injection drug use was reported to be the most significant exposure route for HCV in Canada<sup>4</sup>. A study conducted by Doyle et al. investigated this concept- their group followed the changes in health related quality of life (HRQoL) and social functioning in a population containing people who inject drugs (PWID) treated for HCV. They were able to conclude that the patients showed improved physical and mental HRQoL during treatment, however, HRQoL returned to baseline levels in follow-up sessions<sup>5</sup>. To investigate further, we carried out this study to investigate changes in quality of life pre and post HCV treatment (with DAAs), and also looked into two base line factors that may be associated with improved quality of life after HCV treatment- injection drug use (IVDU) and HCV group attendance.

## Objectives

- 1) To evaluate the changes in QoL of HCV-treated patients in the DTES Vancouver population using EQ5D questionnaires
- 2) To evaluate baseline factors associated with improved QoL after HCV treatment (IVDU and HCV group attendance)

## Methods

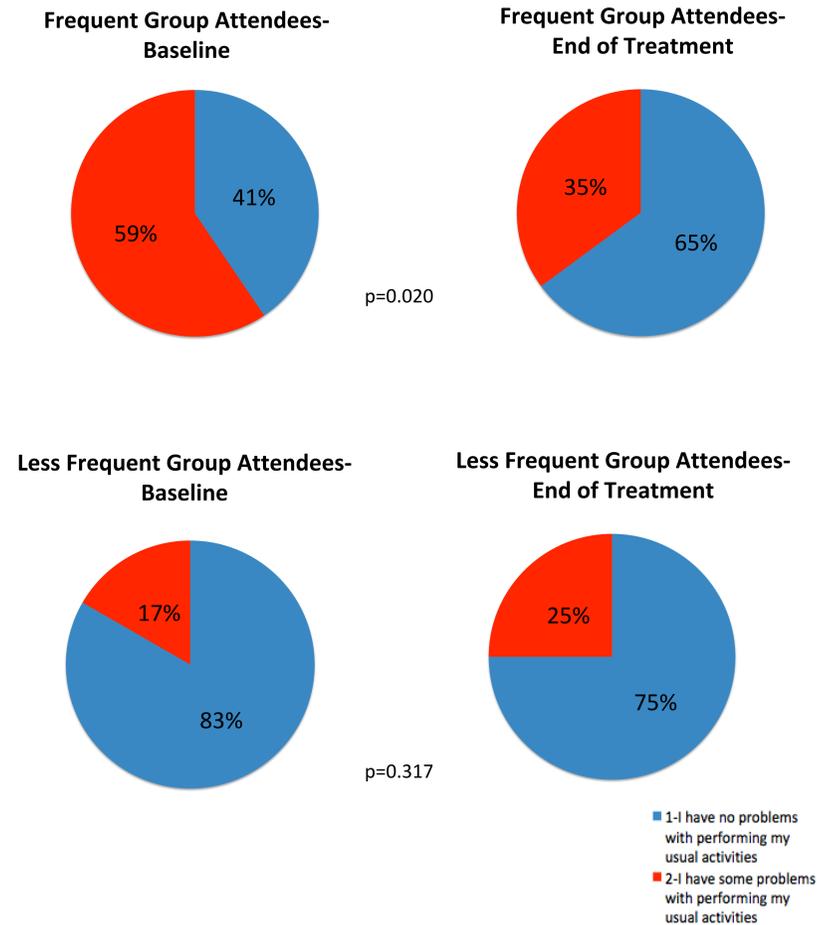


\*Patients receiving hepatitis C treatment at Pender Clinic, Downtown Community Health Clinic, or Ravensong clinic, which is defined as attending an HCV support group or meeting with an HCV MD/NP or RN for consultation.

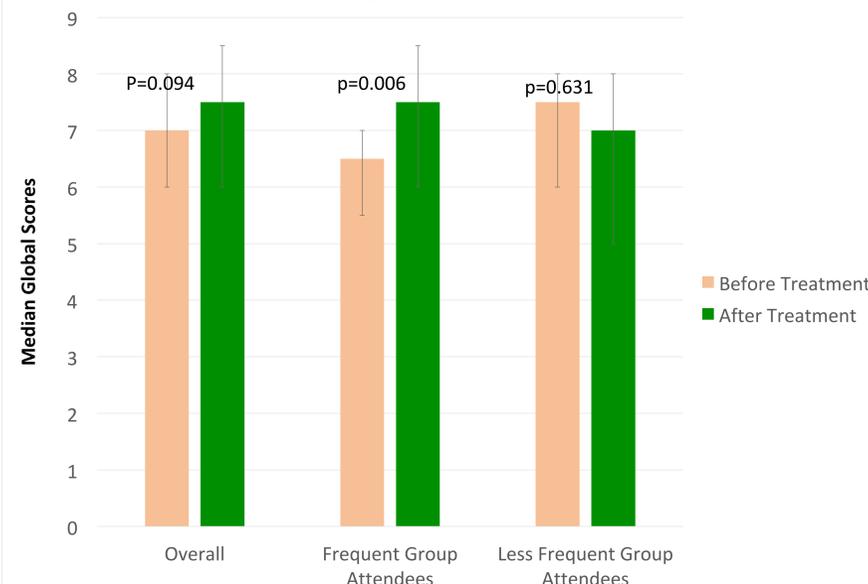
## Study design

- Prospective cohort study
- Results extracted from self-administered EQ5D questionnaires

## Results



## Changes in Global Scores



## Conclusions

This study found that HCV group attendance frequency was the only baseline factor that was statistically significant in showing any improvements in quality of life after HCV treatment. The improvements were seen in the "usual activities" (p=0.020) and in the "global scores" (p=0.006) categories of the EQ5D questionnaire. Within the "usual activities" category, patients that attended group more often (defined as every week or more) changed their answer from "I have some problems with performing my usual activities" at baseline, to "I have no problems with performing my usual activities" at the end of treatment more frequently than patients who attended HCV group less. In terms of global scores, there was a statistically significant improvement in the score within patients that attended HCV group more frequently (defined as every week or more) compared patients that attended group less frequently. IVDU did not have a statistically significant effect on the outcomes of quality of life. Furthermore, none of the other variables (mobility, self-care, pain discomfort, or anxiety/depression) within the EQ5D questionnaire had statistically significant changes when comparing scores before and after treatment.

## Future Directions

As shown in the results, frequent HCV group attendance has a positive effect on quality of life within a complex DTES Vancouver population. Higher attendance in group may represent more social connectedness, increased engagement in care, and may provide a support network for the patients, all of which may be contributing to the improvement in quality of life within HCV patients. Thus, while the cure rates of the DAAs are very promising, we must also acknowledge that social factors play a huge role in the quality of life of patients, and we should not neglect the importance of ensuring that these patients are also receiving such services alongside their medication. Future studies within this field can help bring more awareness and advocate for the utilization of such groups, especially within vulnerable populations. Further studies into this issue may also reveal other baseline factors that can help improve quality of life in patients diagnosed with hepatitis C.

## References

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