



A Follow up Study Among Patients on Opioid Substitution Therapy (OST) in Terms of Relapse Rate, Factors Affecting Relapse Rate and HCV Incidence

Neeru Bala¹, Gaurav Naib², Manjit Singh³, Manmeet Kaur⁴, Amarbirpal Singh⁵, Sumanjeet Kaur^{6*}

¹Professor & Head, Department of Psychiatry, GMC, Amritsar, Punjab, India. Email: jpneeru15@gmail.com, Orcid ID: 0000-0002-8526-953X

²Junior Resident, Department of Psychiatry, GMC, Amritsar, Punjab, India.

Email: gauravnaib@yahoo.co.in

Orcid ID: 0000-0002-5499-8609

³Associate Professor, Department of Psychiatry, GMC, Amritsar, Punjab, India.

Email: manjitsingh212@gmail.com

Orcid ID: 0000-0003-3869-9462

⁴Senior Resident, Department of Psychiatry, GMC, Amritsar, Punjab, India.

Email: manmeetsidhu782@gmail.com

Orcid ID: 0000-0001-6744-1095

⁵Senior Resident, Department of Psychiatry, GMC, Amritsar, Punjab, India.

Email: dramarsandhu14@gmail.com

Orcid ID: 0000-0003-4963-4197

⁶Assistant Professor, Department of Psychiatry, GMC, Amritsar, Punjab, India.

Email: dr.suman@hotmail.com

Orcid ID: 0000-0002-2775-7471

*Corresponding author

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Abstract

Background: Many countries are facing a serious problem with opioid dependence. Opioid Substitution Therapy (OST) is prescribed to dependent opioid users to diminish the use and effects of illicitly acquired opioids. The high relapse rate has been affecting the effectiveness of anti-drug work all over the world. **Material & Methods:** In this study, 200 patients were taken by simple random sampling technique. 100 patient on Buprenorphine substitution therapy and 100 on Methadone maintenance treatment were studied. Patients diagnosed as cases of Opioid dependence as per ICD-10 were selected within the first 3 months and followed up to 1 year at 3, 6 and 9 months. The study was conducted after approval from the institutional ethics and thesis committee. A 14-item questionnaire based on a four-point scale describing the number of times certain events had occurred in the previous week for relapse was used to find factors affecting relapse. **Results:** The relapse rate among patients in the BPN group at 3, 6 and 9 months relapse was 29.33%, 20.34% and 19.51% while in the Methadone group, it was 24.05%, 15.87% and 12% respectively. The overall HCV Incidence was 75% among patients on Opioid Substitution Therapy. **Conclusion:** The findings of the study highlight the role of multiple determinants in opioid dependence and relapse. The obtained results showed that HCV infection was an alarming problem among IV opiate drug users in Punjab.

Keywords: -OST, Relapse, HCV, Opioid.

INTRODUCTION

The term Opioid was coined to include opiates which are naturally occurring drugs from opium, the semi-synthetic drugs produced from opium derivatives and a wide range of total synthetic agents bearing little resemblance to morphine.^[1] Many countries are facing a serious problem with opioid dependence. Each

year, more than 200000 people are killed and about 10 million lose the ability to work as a result of drug use.^[2] Opium, morphine, heroin and other opioid drugs cause the heaviest drug-related burden of disease and the most drug-related deaths in the world.^[3]

Opioid Substitution Therapy (OST) is prescribed to dependent opioid users to

diminish the use and effects of illicitly acquired opioids. Globally, Methadone and Buprenorphine are the most commonly used drugs for opioid substitution therapy.^[4]

Due to great physical and mental dependency caused by opioid drugs, the vast majority of drug users, relapse after detoxification treatment. The high relapse rate has been affecting the effectiveness of anti-drug work all over the world. Most relapses are related to negative emotional states, social pressures and interpersonal conflicts.^[5] Different factors are related to relapse of substance use such as insomnia, temptation, availability of opiates, mental disorders, active alcohol use and family conflicts.^[6,7]

HCV prevalence remains persistently high in many countries despite high coverage of OST and needle and syringe distribution.^[8] Injecting drug use is now one of the main causes of transmission of HCV globally with an estimated 80% of new infections occurring among people who inject drugs (PWID).^[9,10]

Aims & Objectives

1. To study Relapse Rate and Risk Factors for Relapse among patients on Opioid Substitution Therapy.
2. To study the Incidence of HCV among patients on Opioid Substitution Therapy.

MATERIAL AND METHODS

The present study was conducted at the OST centre under the department of Psychiatry, Govt. Medical College, Amritsar. The study was conducted after approval was obtained from Institutional Ethics and Thesis Committee, Govt. Medical College, Amritsar.

Informed consent was taken from each patient enrolled in the study.

In this study, 200 patients were taken by simple random sampling technique. 100 patient on Buprenorphine substitution therapy and 100 on Methadone maintenance treatment were studied. The ICD-10 criteria was used for the diagnosis of Opioid dependence and the same was confirmed by the consultants. The study was conducted for one year from 1st May 2021 to 30th April 2022. The patients were selected within the first 3 months and were followed every 3 months (0, 3, 6 and 9 months) in one year of study. A 14-item questionnaire based on a four-point scale describing the number of times certain events had occurred in the previous week for relapse was used to find factors affecting relapse. The questionnaire was directly derived from the instrument used by Heather and Stallard (1989).

Inclusion Criteria

Patients who were

1. Diagnosed with Opioid dependence as per ICD-10 criteria.
2. On Buprenorphine or Methadone treatment for at least 3 months.
3. Older than 18 years of age.
4. Appeared mentally competent to give informed consent.
5. Willing to sign an informed consent document.

Exclusion Criteria

Patients who were

1. Pregnant or lactating.
2. Suffering from any acute medical condition.
3. Currently using anti-convulsion or antipsychotic medication.
4. Given the refusal to consent.

5. Having other co-morbid drug addictions except for tobacco.
6. Having other co-morbid psychiatric or significant medical ailments.
7. Less than 18 years of age.

Statistical Analysis

Data was recorded in a Microsoft excel spreadsheet and analyzed using Statistical Package for the IBM SPSS Statistics for Windows, version 26.0.

Continuous data was presented as mean with standard deviation. Categorical data was expressed as numbers and percentages. The results were analyzed and compared to previous studies to draw relevant conclusions.

RESULTS

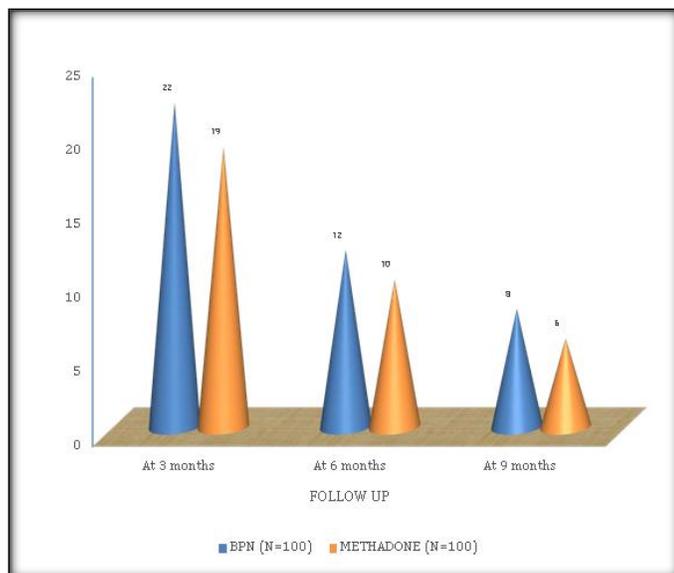


Figure 1: Distribution of the total sample according to relapse rate among patients on OST (N=200)

[Table 1] depicts the treatment outcome among patients in the BPN group; the relapse rate was

42%, the non-relapse rate was 41% and drop out was 17% while in the Methadone group relapse rate was 35%, the non-relapse rate was 50% and drop out was 15%.

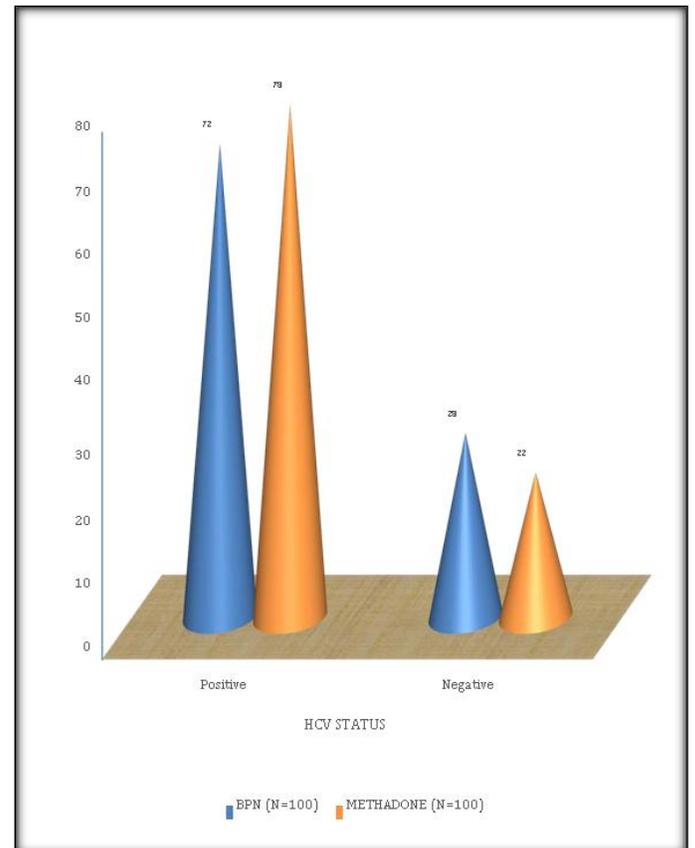


Figure 2: distribution of the total sample according to HCV incidence in BPN and Methadone group (n=200)

[Table 2] depicts the factors affecting relapse in the BPN and Methadone group at 3 months; the two most common factors with the highest score was item no. 14 and 13 with a mean score of 2.39 ± 0.89 and 2.20 ± 0.87 respectively. At 6 months; the most common factors were items no. 14 and 1 with a mean score of 2.43 ± 0.85 and 2.30 ± 0.76 respectively. Similarly, at 9 months; the most common factors were items no. 14



and 13 with a mean score of 2.30 ± 1.0 and 2.10 ± 0.9 respectively.

[Table 3] depicts that the overall incidence of hepatitis C among patients on Opioid Substitution Therapy was 75%.

[Figure 1] depicts that in the BPN group relapse rate was 29.33%, 20.34 and 19.51% at 3,

6 and 9 months respectively while the relapse rate in the Methadone group was 24.05%, 15.87% and 12% at 3, 6 and 9 months respectively.

[Figure 2] depicts the HCV incidence among patients in the BPN group was 72% while in the Methadone group, HCV incidence was 78%.

Table 1: Distribution of the total sample according to the treatment outcome among patients on ost (n=200)

Treatment Outcome	BPN (N=100)		Methadone (N=100)	
	No. of Patients	%age	No. of Patients	%age
Relapse	42	42.00	35	35.00
Non-relapse	41	41.00	50	50.00
Dropout	17	17.00	15	15.00

Table 2: Distribution of the sample according to factors affecting relapse rate in the bpn and methadone group

Q	Items	3 months	6months	9 months
1	I felt sad	2.04 ± 0.87	2.30 ± 0.76	1.78 ± 0.9
2	I was suffering from withdrawal symptoms	1.84 ± 0.92	2.02 ± 0.76	2.00 ± 0.8
3	I was offered drugs	0.88 ± 1.01	1.57 ± 0.93	1.53 ± 1.0
4	I spent long periods alone	1.35 ± 0.75	1.61 ± 0.72	1.43 ± 0.7
5	I felt unwell but not because of withdrawal	1.73 ± 0.95	1.86 ± 0.95	1.75 ± 1.0
6	I felt bored	1.02 ± 0.66	1.36 ± 0.69	1.18 ± 0.6
7	I met people who are users	2.00 ± 0.79	2.02 ± 0.73	1.95 ± 0.7
8	I was in a good mood and felt like getting high	1.12 ± 0.86	1.27 ± 0.76	1.23 ± 0.7
9	I felt tempted to use out of the blue	1.76 ± 0.83	1.57 ± 0.73	1.48 ± 0.8
10	I felt angry, tense/frustrated about my relationship with someone	1.84 ± 0.80	1.57 ± 0.66	1.48 ± 0.7
11	I went looking for a drug using area	0.59 ± 0.50	0.84 ± 0.53	0.83 ± 0.4
12	I felt anxious/tense/frustrated because things were not going my way	2.04 ± 0.87	2.02 ± 0.82	1.78 ± 0.9
13	I was with others having a good time and we felt like getting high together	2.20 ± 0.87	2.18 ± 0.84	2.10 ± 0.9
14	I saw someone else use or saw drugs and felt I had to use	2.39 ± 0.89	2.43 ± 0.85	2.30 ± 1.0

Table 3: Distribution of the total sample according to hcv incidence (n=200)

HCV STATUS	No. of Patients	%age
Positive	150	75.00
Negative	50	25.00

DISCUSSION

Our findings showed that the Relapse rate among patients in the BPN group at 3 months, 6 months and 9 months was 29.33%, 20.34 and 19.51% respectively while in the Methadone group, it was 24.05%, 15.87% and 12% respectively. Similar research by Asik AH et al (2015), revealed that the recurrence rate with Buprenorphine treatment varied substantially ranging from 13% to 40.8% in 3 months, from 39.6% to 51.4% in 6 months and from 21.7% to 25% over 12 months.^[11]

Our findings show that the most common factors affecting relapse in the BPN and Methadone group were; I saw someone else use or saw drugs and felt I had to use and I was with others having a good time and we felt like getting high together. Amat MAC et al (2020) found that the risk factors for relapse were a lack of willpower, boredom, irritability, lack of religious knowledge and practices, anger, and resentment.^[12] Appiah R et al (2017) showed in separate research that elements such as positive/negative emotional reinforcements, a feeling of loss, interpersonal conflicts, peer influence, family, cultural and treatment-based difficulties conspire to initiate and sustain the relapse cycle.^[13]

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Our findings showed that overall HCV incidence among patients on Opioid Substitution Therapy was 75%. In the BPN group; HCV incidence was found to be 72% and in the Methadone group it was 78%. Hojati SA (2018) additionally stated that 43.38 % of those with hepatitis C were also addicted to drugs.^[14] Mehta SH et al (2010) revealed that 55% of drug users were hepatitis-C positive.^[15] Similarly, Shiffman ML (2018) reported that 50% of injecting drug users (IDUs) had been exposed to HCV.^[16] In a meta-analysis conducted by Karimi SE et al (2020), a pooled prevalence rate of 61.01% was found.^[17]

CONCLUSIONS

Relapse was found to be a complex multifactorial phenomenon. The findings of the study highlight the role of multiple determinants in opioid dependence and relapse. The obtained results showed that HCV infection was an alarming problem among IV opiate drug users in Punjab. OST-situated HCV care should be continued and these need to be extended on other sites focussing on a broader group of PWID. Needle sharing was significantly associated with high HCV prevalence.

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