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A Comparative Analysis of Factors Contributing to Relapse in Alcohol and Opioid Dependence Among Patients Admitted to Selected Hospitals in Ludhiana, Punjab

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Abstract

Introduction: *Substance abuse involves the dangerous or detrimental use of psychoactive substances, such as alcohol and illegal drugs. The use of these substances can result in dependence syndrome, which encompasses a range of behavioral, cognitive, and physiological effects that arise from ongoing substance use.* ***Objectives:*** *This study was carried out to examine the factors linked to relapse in alcohol and opioid dependence among patients admitted to selected hospitals in Ludhiana, Punjab.* ***Conceptual Framework:*** *was based on health belief model* ***Methodology:*** *A comparative study was conducted on 100 samples of patients alcohol dependence (50) and opioid (50) who were selected by purposive sampling technique. Self-structured checklist was used that had four sections. Section 1 was to obtain the socio demographic data from respondents. Section 2 consisted of five sub factor each had 10 items related to that factor and minimum score was 00 and maximum was 10.* ***Results:*** *In opioid patient's majority 42 (84%) had severe effect followed by 08 (16%) had moderate and none had mild effect of all factors. In alcoholic patients majority 34 (68%) had severe effect followed by 16(32%) had moderate and none had mild effect of all factors. Personal and family factor, psychological factors were almost the main reason that effect both opioid and alcoholic patient. There was statistically non-significant relationship of age and marital status and residence area of associated with relapse in alcohol dependence with selected socio-demographic profile whereas age, family type and area of residence found non-significant in opioid dependence patients.* ***Conclusion:*** *Emotional factor, Personal factor, social factors were almost the main reason that effect both opioid and alcoholic patient. There was statistically non-significant relationship of age and marital status and residence area of associated with relapse in alcohol & opioid dependence patients.*

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INTRODUCTION

June 26 is recognized each year as the International Day Against Drug Abuse and Illicit Trafficking. Approximately 190 million people worldwide use different types of drugs. Drug addiction causes immense personal suffering, and the illegal manufacturing and trafficking of drugs contribute to extensive crime and violence. Many drug users globally face severe hardships, often living precariously between life and death. A United Nations report indicates that there are one million officially recorded heroin addicts in India,

with unofficial estimates suggesting the number could be as high as five million. Substance abuse involves the harmful or hazardous consumption of psychoactive substances, including alcohol and illegal drugs. Continued use of these substances can result in dependence syndrome, which is marked by various behavioral, cognitive, and physical symptoms. These include a strong urge to use the drug, difficulty controlling its use, continued use despite adverse consequences, prioritizing drug use over other activities and responsibilities, increased tolerance, and, in some cases, physical withdrawal symptoms [1].

Addiction is characterized as a persistent and recurring brain condition marked by an irresistible urge to seek out and use drugs, even in the face of negative outcomes. It is termed a brain disease because drugs alter brain structure and function. Similar to other diseases like heart disease, addiction disrupts the normal, healthy operation of the brain, leads to severe negative outcomes, and is both preventable and treatable, though it can become a lifelong condition if not addressed [2].

Substance abuse represents a critical issue in many countries, carrying significant social and economic impacts. In developing nations like India, young people face numerous stresses such as intense competition in education and employment, evolving family and societal roles, new responsibilities, and changing physical and emotional identities. In recent years, Punjab has seen a significant increase in the rates of HIV infections. While the national HIV prevalence is 9%, Punjab's rate has surged to approximately 26% over the past five years. It has been seen that those people who are severely dependent drink alone, steal drink, hide and drink before going to parties assuming that there will be shortage, becomes morning drinker and deny the pattern of use [3].

Children with multiple risks for alcohol abuse and/or dependence. Some of these risk factors include a lack of a parent monitoring severe and recurrent family conflict, poor parent-child relationship, child with conduct disorder, poor socialization, ineffective coping skills as well as those with little connection to parents, other family members, or school may be at an increased risk for alcohol abuse and/or dependence. People who have a parent or sibling with alcoholism are three to four times more likely to develop alcoholism themselves. Additionally, environmental factors, including social, cultural, and behavioral influences, play a crucial role in this increased risk. High stress levels, anxiety, and the availability of cheap and easily accessible alcohol further elevate the risk.[4]

NEED OF THE STUDY

The detrimental and risky consumption of alcohol is a major global problem, leading to death, disease, and injury. It affects drinkers through health issues such as alcohol dependence, liver disease, cancers, and injuries, and through dangerous behaviors associated with intoxication, such as drunk driving and violence. Alcohol misuse is responsible for approximately 2.5 million deaths annually, resulting in a net loss of 2.25 million lives worldwide [5]. Relapse is a complex phenomenon influenced by multiple factors, including individual patient characteristics, the drug itself, and environmental reinforcers. Preventing relapse presents a major challenge in the treatment of alcoholism. According to reports, about 30 percent of India's population—almost one-third of the country—regularly consumes alcohol as of 2010. Among them, around 11 percent are moderate to heavy drinkers. On average, Indians consume about 4.3 liters of alcohol per year, with rural areas reporting a significantly higher average of approximately 11.4 liters annually [6]. Alcohol-related deaths and diseases caused by alcoholism are significant health issues, with alcoholism being a major cause of liver cirrhosis and failure. In 2012 alone, alcohol consumption was responsible for approximately one million deaths in India, accounting for about 5.9 percent of global deaths that year. New cases of addiction are predominantly among the youth, particularly those aged 15 to 35. In rural Punjab, it is common for families to have at least one member involved in liquor or drug abuse [7].

Age and gender influence alcohol use among adolescents. As adolescents grow older, they are more likely to start drinking (if they haven't already), engage in binge drinking, and drive under the influence.

Early initiation of drinking is linked to a higher likelihood of substance abuse, problematic drinking behaviors, and the development of alcohol use disorders. Early alcohol use is associated with later alcohol misuse, while positive parenting can reduce the risk, whereas parental alcohol use and alcohol-using peers increase it.

In India, the prevalence of alcohol use varies widely, ranging from 23% to 74% among males, and reaching 80% among adolescents. The variety of drugs that are being used in Punjab including cocaine, cannabis, nicotine, opioid, tobacco, synthetic drugs like morphine, pethidine, codeine and diazepam. The poly substance dependence has increased significantly over the last three decades from 8.7% to 62.7%. The national survey done on the extent, pattern and trends of drug abuse in India in association with United Nations Office of Drug and Crime, 2009 suggested that Punjab comes under the pockets of high opiate use [8–10].

Objectives:

1. To assess the factors associated with relapse in alcohol and opioid dependence among the patients admitted in selected hospitals of Ludhiana Punjab.
2. To analyze and compare the factors contributing to relapse in alcohol and opioid dependence among patients admitted to selected hospitals in Ludhiana, Punjab.
3. To find out the association of factors associated with relapse in alcohol and opioid dependence with age (in years), type of family, family monthly income (in Rs.), marital status and place of residence.
4. To prepare IEC (pamphlets) material regarding prevention of relapse in alcohol and opioid dependence.

Assumptions:

1. There were multiple factors associated with relapse in clients with alcohol and opioid dependence.

METHODOLOGY

Research approach: A quantitative/Non-experimental research approach was used.

Research design: A comparative research design was used

Variables

Demographic variables: were age in years, type of family, family income per month, marital status, place of residence.

Dependent variables were factors associated with relapse in alcohol dependence and opioid dependence among patients.

Research setting: The current study was carried out at Lord Mahavir Civil Hospital in Ludhiana, Punjab, specifically focusing on patients from the de-addiction center. The Lord Mahavir Civil hospital was 25 Km away from S.K.S.S. College of Nursing, Sarabha.

Study Population: Researcher selected a sample of 100 patients out of 50 diagnosed with relapsed alcohol dependence and 50 diagnosed with relapsed opioid dependence patients and seeking treatment for relapse in selected hospital.

Sampling technique: A purposive sampling technique was used to select the sample by administering the self-structured checklist for patients who were admitted in de-addiction center of civil hospital Ludhiana.

Criteria for Selection of Sample

Inclusion Criteria

- Previously treated with alcohol and opioid dependence.
- Willing to participate in the study.
- Relapsed after 2 month or more of abstinence from alcohol and opioid.
- Present during data collection.
- In the age group of 18-45 years of age.

Exclusion Criteria

Male patient who were:

- < 18 years of age
- Diagnosed with other psychiatric disorder and drug addiction.

Sample: Sample comprised of 100 patients admitting in De– addiction center of Lord Mahavir Civil hospital Ludhiana who fulfilled the inclusion criteria.

Development and Description of Data Collection Tool

- *Section A:* Demographic Performa of patients include Age, type of family, family income per month, marital status, place of residence.
- *Section B:* Checklist on factors associated with relapse in alcohol dependence and opioid dependence. There were factors assessed, each factor include 10 items to check its effect on patients. Following factors were assessed; personal, emotional, family, psychological, social factors were included each has 10 item each item give 1 mark if response were yes if no then gave 0 mark.
  - *Table 1:* Used for assessing the overall effect of a combination of factors based on a cumulative score.
  - *Table 2:* Used for assessing the effect of each individual factor based on its specific score.

Table 1. Criterion measurement according to overall factors.

Effect of factors	Score
Mild	0–16
Moderate	17–32
Severe	33–50

Maximum score = 50 Minimum score = 0

Table 2. According to five factors criterion measurement.

Effect of factors	Score
Mild	0–3
Moderate	4–6
Severe	7–10

Minimum score = 0, Maximum score = 10

Content validity of tool: The validity of the tool was established through expert evaluation. It was reviewed by specialists from various fields, including Mental Health Nursing, Community Health Nursing, Medical-Surgical Nursing, Child Health Nursing, and Obstetrical and Gynecological Nursing, to ensure content validity. The experts assessed the items for relevance, clarity, and appropriateness. Revisions were made to the tool based on their feedback. *Reliability of tool:* Reliability was calculated by applying split half method. The reliability of tool was 0.86 and its standardized reliability was 0.9. Hence, the tool was reliable to conduct study.

Plan of Data Analysis

Data analysis and interpretation were conducted based on the study's objectives, utilizing both descriptive and inferential statistics. This included calculations of mean, mean percentage, standard

deviation, as well as the application of the t-test, ANOVA, and Chi-square test. The findings were illustrated using bar diagrams. The significance level for the analysis was set at $p \leq 0.05$.

RESULTS & DISCUSSION

According to the First Objective of the Study was to Assess the Factors Associated with Relapse in Alcohol and Opioid Dependence

The effect of factors in relapsed alcohol and opioid dependence among patients. All factors effect among alcohol and opioid dependence patients. In opioid patients majority 42 (84%) had severe effect followed by 08(16%) had moderate and none had mild effect of all factors. In alcohol dependence patients majority 34(68%) had severe effect followed by 16(32%) had moderate and none had mild effect of all factors [11].

According to the Second Objective of the Study was to Compare the Factors Associated with Relapse in Alcohol and Opioid Dependence Among the Patients

The comparison of level of relapsed alcohol and opioid dependence among patients. The mean and SD score of relapsed opioid dependence among patients 35.94 ± 4.349 was higher than alcohol 33.98 ± 5.293. The computed t value was found to be significant *(t= 2.023 p= 0.046*)* at the value of 0.05 level of significant. Hence, these finding shows that relapsed opioid dependence patients had more effect of all factors associated with relapse [12].

According to Third Objective of the Study was to Find Out the Association of Factors Associated with Relapse in Alcohol Dependence & Opioid Dependence with Age (in years), Type of Family, Family Monthly Income (in Rs.), and Marital Status

- *According to age:* The highest mean & SD score 36.30 ± 4.22 was found in those relapsed alcohol dependence patients who were in the age group of above 40 years followed by 33.43 ± 5.55 in 21-30 years, and minimum mean score 33.33 ± 6.60 in the age group of ≤20. The association of mean score of relapsed alcohol dependence patients with Age in years was found statistically non-significant at p≤0.05 level. Hence, it indicated that there had no association between relapsed alcohol dependence patients and age in years. The highest mean & SD score was 37.00 ± 5.15 found in those relapsed opioid dependence patients who were in the age group of <21 years followed by 37.52 ± 3.46 in 31-40 years, and minimum mean score was 33.89 ± 4.31 in the age group more than 40. The association of mean score of opioid dependence patients with Age in years was found statistically non-significant at p≤0.05. Hence, it indicated that there had no association between opioid dependence and age in years [13].
- *According to family:* The highest mean & SD score 35.42 ± 3.55 found in those relapsed alcohol dependence patients who belonged to nuclear family whereas lowest mean score 32.65 ± 6.29 found in joint family. The association of mean score of relapsed alcohol dependence patients with type of family was found statistically non-significant at p<0.05 level as computed t test. Hence, it indicated that there had no association between relapsed alcohol dependence and type of family. The highest mean & SD score 36.48 ± 3.99 found in those relapsed opioid dependence patients who belonged to nuclear family whereas lowest mean score 35.19 ± 4.80 found in joint family. The association of mean score of opioid dependence patients with type of family was found statistically non-significant at p≤0.05 level as computed by ANOVA test. Hence, it indicated that there had no association between opioid dependence and type of family.
- *According to income:* The maximum mean & SD score 36.38 ± 4.17 found in those relapsed alcohol dependence patients who had family income per month was ≤5000 and minimum mean score 32.53 ± 6.59 in those relapsed alcohol dependence patients who had family income per month was 10001-15000. The association of mean score of relapsed alcohol dependence patients with family income per month was found statistically non-significant at p<0.05 level as computed by ANOVA. Hence, it indicated that there had no association between alcohol dependence and family income per month. The maximum mean& SD score 39.40 ± 2.70 found in those relapsed opioid dependence patients who had family income per month was <5000 and minimum mean

score was 34.88 ± 4.27 in relapsed opioid dependence patients who had family income per month was 10001–15000. The association of mean score of relapsed opioid dependence patients with family income per month was found statistically non-significant at p≤0.05 level as computed by ANOVA. Hence, it indicated that there had no association between opioid dependence and family income per month [14].

- *According to marital status:* The maximum mean & SD score found 35.00 ± 5.80 in those relapsed alcohol dependence patients who were divorced, whereas minimum mean & SD score was 33.46 ± 5.98 found in married. The association of mean score of alcohol dependence patients with marital status was found statistically non-significant at p≤0.05 level as computed by ANOVA. Hence, it indicated that there had no association between alcohol dependence and marital status. The maximum mean & SD score found 37.35 ± 3.30 in those relapsed opioid dependence patients who were unmarried, followed by 35.23 ± 4.91 in married, 33.50 ± 3.70 in divorced. The association of mean score of relapsed opioid dependence patients with marital status was found statistically non-significant at p≤0.05 level as computed by ANOVA. Hence, it indicated that there had no association between opioid dependence and marital status.
- *According to residence:* The maximum mean & SD score found 33.10 ± 6.29 in those alcohol dependence patients who were belonged to rural areas whereas minimum 35.19 ± 3.27 in urban areas. The association of mean score of alcohol dependence patients with place of residence was found statistically non-significant at p≤0.05 level as computed by ANOVA. Hence, it indicated that there had no association between alcohol dependence and place of residence. The maximum mean & SD score found 36.39 ± 4.61 in those opioid dependence patients who were belonged to rural areas whereas minimum 35.19 ± 3.90 in urban areas. The association of mean score of relapsed opioid dependence patients with place of residence was found statistically non-significant at p≤0.05 level as computed by ANOVA test. Hence, it indicated that there had no association between opioid dependence and place of residence [15].

CONCLUSION

- Most effective factors among opioid and alcohol relapsed patients were Personal, Emotional, Social factors.
- There was statistically significant relationship of age, marital status and place of residents associated with relapse in relapsed alcohol dependence with selected socio-demographic profile whereas age, family type and place of residence found significant in relapsed opioid dependence patients. In this study socio-economic status had no relationship with socio-demographic profile.

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