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A STUDY TO ASSESS THE WITHDRAWAL SYMPTOMS AMONG ALCOHOLIC CLIENTS ADMITTED IN PSYCHIATRIC HOSPITAL

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ABSTRACT
This study aimed to estimate the alcohol withdrawal symptoms among alcohol-dependent patients and to explore their association with selected socio-demographic variables. A descriptive cross-sectional study was conducted among 30 male alcohol-dependent patients, aged predominantly between 25 and 44 years. The prevalence of withdrawal symptoms such as headache (83.3%), tremors (60%), anxiety (50%), and perceptual disturbances was assessed. Statistical analysis revealed no significant association between these withdrawal symptoms and socio-demographic variables including age, marital status, occupation, and duration of alcohol use. These findings suggest that alcohol withdrawal symptoms occur broadly across different demographic groups, emphasizing the need for universal clinical screening and comprehensive management strategies during withdrawal.

Keywords: Alcohol withdrawal symptoms; Mental disorders; Sleep quality; Social isolation; eating disorders; Screen time; Socialization; stress

INTRODUCTION

Alcohol Use Disorder (AUD) is a widespread and consequential psychiatric and medical condition globally. Chronic and excessive alcohol consumption leads to neuroadaptive changes in the central nervous system, which underlie both tolerance and dependence. [1] When alcohol use is abruptly discontinued or decreased significantly, individuals with dependence may develop Alcohol Withdrawal Syndrome (AWS), a constellation of symptoms that may range from mild anxiety and tremor to severe complications such as seizures, autonomic instability, and delirium tremens (DT). [2]

In neurobiological level, prolonged alcohol exposure enhances GABAergic inhibition and suppresses excitatory glutamatergic transmission. With sustained use, the brain adapts to the presence of alcohol, downregulating GABA receptors (particularly extrasynaptic GABA_A subtypes) and upregulating NMDA-receptor mediated activity. [3] Upon cessation of alcohol intake, the inhibitory system is suddenly deprived of its exogenous support and unopposed excitatory signalling leads to neurochemical hyperactivity, manifesting in the classical symptoms of withdrawal. [4] Alcohol withdrawal seizures, for instance, are thought to reflect this imbalance, particularly when GABAergic inhibition is insufficient to suppress excitatory circuits in brainstem and forebrain structures. [5]

Furthermore, research has shown that some changes persist beyond the acute withdrawal period. A recent systematic review of Post Acute Withdrawal Syndrome (PAWS) documents symptoms such as anxiety, dysphoria, sleep disturbance, irritability, cognitive impairment, and craving that persist for several months after cessation. These lingering symptoms are associated with neurobiological alterations in circuits involving the prefrontal cortex, and stress hormone systems including cortisol, and may contribute to relapse risk. [6]

In clinical contexts, evaluation of withdrawal severity is vitally important to guide treatment. The Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA Ar) is one of the most widely used assessment tools.8 It is helpful in quantifying the severity of AWS and promoting symptom triggered therapy. However, recent work has raised concerns about its performance in certain populations. [7] A quality improvement project assessed CIWA Ar and a shorter instrument, the Brief Alcohol Withdrawal Scale (BAWS), in psychiatric inpatients. The sensitivity of CIWA Ar at a meaningful cutoff (≥8) was moderate approximately 47%, specificity high approximately 88%, while BAWS had higher sensitivity approximately 79% in that sample, although the two instruments were similar in area under ROC curves (0.77 for CIWA Ar vs 0.76 for BAWS). [3] This suggests that psychiatric illness may complicate withdrawal assessment and that alternative or complementary tools might be more efficient or better suited for such populations. [9]

Another important dimension is cultural and language context. The CIWA Ar has been validated in many settings; for example, the Estonian version showed acceptable interrater reliability and good correlation with clinician global severity ratings. [10] Differences in culture, communication style, and patients' ability to describe subjective symptoms (like anxiety, nausea) might influence how tools like CIWA Ar perform in psychiatric hospital settings, especially in regions where language, literacy, or stigma pose barriers. [8]

Moreover, many psychiatric inpatients present with comorbid psychiatric disorders such as mood, psychotic, anxiety disorders that may pre-exist or co-occur with AUD. These comorbidities can obscure the presentation of AWS: hallucinations, agitation, sleep disturbance, or anxiety might be attributed to psychiatric illness rather than withdrawal or vice versa. Additionally, psychiatric inpatients are more likely to have had prior detoxifications, interrupted patterns of alcohol use, medical comorbid conditions, malnutrition, or polypharmacy, each of which may influence both onset and severity of AWS. [11]

Despite the large body of research on AWS, there are gaps notably relevant to psychiatric hospital settings. Many studies are conducted in detoxification centers, general medical wards, or addiction treatment units, rather than psychiatric inpatients. There is less data on how AWS symptoms manifest in psychiatric inpatients, the timeline of symptom onset in that group, severity patterns, and which demographic or clinical variables predict more severe withdrawal in that context. There are also fewer studies from lower middle-income countries and from diverse cultural settings where both alcohol dependence and psychiatric comorbidity are prevalent but resources for assessment and treatment are more constrained. [12]

Also, the neurobiological research (e.g., studies of GABA/glutamate imbalance, the role of NMDA receptor changes, and excitatory/inhibitory imbalance, as well as contributing stress hormone and neurotransmitter changes) underscores why withdrawal may vary greatly between individuals. [4, 13, 12] For instance, the "kindling effect," whereby repeated withdrawal episodes lead to worsening withdrawal severity, has been demonstrated in animal models; similar phenomena likely occur in human populations. [12]

Finally, early recognition and management of AWS in psychiatric settings is critical not only to prevent medical complications (e.g., seizures, delirium tremens, autonomic instability) but also to allow psychiatric treatments to proceed safely. Unmanaged or poorly managed withdrawal may delay stabilization of psychiatric illness, prolong hospitalization, increase risk of adverse events, and reduce quality of care. [13]

Thus, studying the nature, severity, timeline, and predictors of withdrawal symptoms specifically in alcoholic clients admitted to psychiatric hospitals is highly relevant. Such research can help improve assessment protocols (including validating or adapting tools like CIWA Ar or BAWS), guide treatment strategies, anticipate complications, and tailor care in psychiatric settings. It can also support better staff training, policy, and resource allocation. [14]

Statement of the Problem

A cross-sectional study to assess the withdrawal symptoms among alcoholic clients admitted in a psychiatric hospital in Ernakulam District, Kerala.

Objectives

1. To identify the withdrawal symptoms among clients diagnosed with alcohol dependence syndrome
2. To determine the association between withdrawal symptoms and selected sociodemographic variables.

Operational definitions

1. **Withdrawal Symptoms:** Observable and measurable physical and psychological signs and symptoms that occur in clients as a result of reducing or stopping alcohol consumption. In this study, withdrawal symptoms assessed using a standardized CIWA-Ar (Clinical Institute Withdrawal Assessment for Alcohol, Revised) scale that included symptoms like tremors, anxiety, nausea, sweating, irritability, seizures, etc.
2. **Alcoholic Clients:** Individuals who have been diagnosed with Alcohol Use Disorder (AUD)

based on psychiatric evaluation and criteria such as DSM-5 or ICD-11. In this study, alcoholic clients refer to those admitted to the psychiatric hospital with a documented history of chronic alcohol consumption and were undergone detoxification.

3. **Psychiatric Hospital:** A specialized healthcare facility that provides treatment and care for patients with mental health disorders. In this study, it refers to the MOSC Hospital, Kolenchery, F& G, S3 and K3 wards which offers detoxification and psychiatric treatment support for alcohol dependence.
4. **Assess:** The process of identifying, measuring, and recording the presence and severity of alcohol withdrawal symptoms using appropriate tools or scales. In this study, assessment will be done using clinical observations and a structured assessment scale like CIWA-Ar over a specific period post-admission.

Assumptions

1. Clients diagnosed with alcohol dependence may experience varying degrees of withdrawal symptoms on admission.
2. The severity of withdrawal symptoms may be influenced by factors such as duration and frequency of alcohol use, number of previous detoxifications, and general physical health.

Early assessment of withdrawal symptoms helps prevent complications such as seizures or delirium tremens.

Hypothesis

H_{A1}: There is a significant association of alcohol withdrawal symptoms and selected sociodemographic variables.

MATERIALS AND METHODS

Study design

This cross- sectional study was conducted at M.O.S.C. Medical Mission Hospital, Kolenchery, Ernakulam district, Kerala. The study was approved by the institutional ethical committee and written informed consent was obtained from all the participants.

Variables

Research variable: Alcohol withdrawal symptoms
Sociodemographic variables: Age, gender, marital status, occupation, and duration of alcohol use

Setting of the study

M.O.S.C. Medical Mission Hospital, Kolenchery, Ernakulam district, Kerala

Population

- **Target population**

Alcohol dependent patients for deaddiction at Ernakulam district, Kerala

- **Accessible population**

Alcohol dependent patients for deaddiction in Psychiatric wards (S3, K3, F&G) in Malankara Orthodox Syrian Church Hospital, Kolenchery at Ernakulam district, Kerala

Sample and sampling technique

- **Sample**

Alcohol dependent patients for deaddiction aged above 18 years in psychiatric wards of Malankara Orthodox Syrian Church Hospital, Kolenchery at Ernakulam district, Kerala**,** who had met the inclusion criteria.

- **Sampling technique**

Non probability Convenience sampling technique was used.

- **Sample size**

A study with 30 participants

Sample selection criteria

Inclusion criteria

- Clients aged 18 years and above
- Diagnosed with alcohol dependence (as per DSM-5 or ICD-11 criteria)
- Admitted within 72 hours of last alcohol intake
- Willing to participate and provide informed consent

Exclusion criteria

- Clients with comorbid severe psychiatric or medical illnesses that interfere with assessment
- Clients with other substance use disorders (excluding nicotine)
- Unconscious or medically unstable clients

Tools and techniques

Tool 1: Socio demographic Proforma

Socio demographic proforma includes socio demographic characteristics of alcohol dependent patients. The socio demographic proforma consisted of 5 items includes age, gender, marital status, occupation, and duration of alcohol use.

Tool 2: Clinical Institute Withdrawal Assessment of Alcohol Scale - Revised (CIWA-Ar)

The CIWA-Ar (Clinical Institute Withdrawal Assessment for Alcohol, revised) is a clinical tool used to assess and monitor alcohol withdrawal symptoms in patients. It helps healthcare providers determine the severity of withdrawal and guides decisions about treatment, particularly the need for medications like benzodiazepines. Purpose is to quantify the severity of alcohol withdrawal. The scale consists of 10 items, including Nausea and vomiting, Tremors, Sweating, Anxiety, Agitation, Tactile, auditory, and visual disturbances, Headache, Orientation and clouding of sensorium. The

maximum score is 67. Scores <10 indicates Mild withdrawal, 10–19 indicates moderate withdrawal, ≥20 indicates severe withdrawal, requiring close monitoring and medication. This scale is typically used in hospitals or detox settings with regular monitoring (e.g., every 1–4 hours). CIWA-Ar is considered a standard tool for safe and effective management of alcohol withdrawal.

Ethical clearance

The investigator has considered the ethical principles while proceeding with the research project. This study protocol was approved by the Institutional Ethics Committee of M.O.S.C. Medical Mission Hospital, Kolenchery. A letter explained the purpose of the study was handed over to the study subjects and Informed written consent was taken from each participant before data collection. Confidentiality and anonymity of the data were ensured using subject coding system.

Data collection process

After obtaining approval from Institutional Ethics Committee of Malankara Orthodox Syrian Church Medical College Hospital, formal permission was obtained from Principal, College of Nursing and Administrative permission was obtained from hospital authorities. Total of 30 subjects were selected from M.O.S.C. Medical Mission Hospital, Kolenchery, Ernakulam District. The samples were selected by non-probability convenient sampling technique, based on eligibility criteria. After a brief self-introduction, the subjects were explained regarding the purpose of the study. The subjects were allowed to read the participant information sheet and made provision to clarify their doubts. Following this, informed consent from the patients were obtained for participation in the study. The demographic data and alcohol withdrawal symptoms were assessed using socio demographic proforma and Clinical Institute Withdrawal Assessment of Alcohol Scale - Revised (CIWA-Ar) respectively. The data were collected from 20th March 2025 to 30th March 2025. Approximate time taken for data collection from each participant was 15 minutes. The investigator thanked the participants for their cooperation for the study.

Plan for data analysis

The data were analysed by using R software. All categorical variables were summarized as frequency and percentage and all quantitative variables were summarized using as mean and SD if the data follows normality assumption, else using median and IQR(Q3-Q1). To test the statistical significance of the association of selected socio-demographic variables with alcohol withdrawal symptoms, Chi-square test was used. A p value <0.05 is considered to be statistically significant. Statistical Analysis was performed using EZR software.

Description of socio demographic variables among alcohol dependent patients.

In this section, the socio demographic variables of alcohol dependent patients such as age, gender, marital status, occupation, and duration of alcohol use were described in frequency and percentage.

Table 1: Frequency and percentage distribution of subjects based on age, gender, marital status, occupation, and duration of alcohol use (n=30)

SI No.	Socio demographic variables	Frequency (f)	Percentage (%)
1.	Age		
	18-24	3	10%
	25-34	9	30%
	35-44	12	49%
	45-54	5	16.7%
	55-64	1	3.3%
2.	Gender		
	Male	30	100%
	Female	0	0%
3.	Marital status		
	Married	20	66.7%
	Single	10	33.3%
4.	Occupation		
	Business	5	16.7%
	Professional	3	10.0%
	Skilled labourer	11	36.7%
	Unemployed	7	23.3%
	Unskilled labourer	4	13.3%
5.	Duration of alcohol use		
	>15yrs	9	30%
	11-15yrs	7	23.3%

	6-10yrs	14	46.7%

Data in table 1 shows majority of the participants (49%) were in the age group of 35–44 years (n=12), followed by 30% (n=9) in the 25 – 34 years age group. About 16.7% (n=5) of the participants were between 45–54 years, while 10% (n=3) were between 18–24 years. Only 3.3% (n=1) were in the 55–64 years age group. This indicates that most alcohol-dependent clients were middle-aged adults. All participants in the study were male (100%, n=30), with no female participants, suggesting a possible gender disparity in the population of alcohol-dependent individuals seeking treatment in this setting.

A majority of the participants were married (66.7%, n=20), while 33.3% (n=10) were single. This shows that a significant portion of the study population were individuals with familial responsibilities. The most common occupation among the participants was skilled labourer (36.7%, n=11), followed by unemployed individuals (23.3%, n=7). Businessmen accounted for 16.7% (n=5), unskilled labourers were 13.3% (n=4), and professionals made up the smallest group at 10% (n=3). This indicates a predominance of manual or semi-skilled workers among the alcohol-dependent clients. Nearly half of the participants (46.7%, n=14) had been consuming alcohol for 6–10 years, followed by 30% (n=9) who had used alcohol for more than 15 years. About 23.3% (n=7) had a history of alcohol use for 11–15 years. This reflects a long-term pattern of alcohol use among most patients.

Description of alcohol withdrawal symptoms among alcohol dependent patients

In this section, the alcohol withdrawal symptoms such as nausea and vomiting, tremors, sweating, anxiety, agitation, tactile, auditory, and visual disturbances, headache, orientation and clouding of sensorium were described.

Table 2: Description of alcohol withdrawal symptoms such as nausea and vomiting, tremors and sweating (n=30)

SI No.	Socio demographic variables	Frequency (f)	Percentage (%)
1.	Nausea and vomiting		
	No	18	60.0%
	Yes	12	40.0%
2.	Tremors		
	No	12	40.0%
	Yes	18	60.0%
3.	Sweats		
	No	15	50.0%
	Yes	15	50.0%

Table 3: Description of alcohol withdrawal symptoms such as anxiety, agitation, tactile and auditory disturbances

SI No.	Socio demographic variables	Frequency (f)	Percentage (%)
1.	Anxiety		
	No	15	50.0%
	Yes	15	50.0%
2.	Tactile disturbances		
	No	24	80.0%
	Yes	6	20.0%
3.	Auditory disturbances		
	No	18	60.0%
	Yes	12	40.0%

Table 4: Description of alcohol withdrawal symptoms such visual disturbances, headache, orientation and clouding of sensorium (n=30)

SI No.	Socio demographic variables	Frequency (f)	Percentage (%)
1.	Visual disturbances		
	No	16	53.3%
	Yes	14	46.7%
2.	Headache		
	No	5	16.7%
	Yes	25	83.3%
3.	Agitation		

	No Yes	11 19	36.7% 63.3%
4	Orientation and clouding of consciousness No Yes	 16 14	 53.3% 46.7%

Data in tables 2,3 &4 indicate that headache (83.3%), tremors (60%), and agitation (63.3%) are among the most commonly reported symptoms in alcohol-dependent patients undergoing withdrawal. Symptoms related to perceptual disturbances such as visual (46.7%), auditory (40%), and tactile (20%) changes were also reported, though less frequently. The presence of anxiety (50%) and clouding of consciousness (46.7%) underscores the need for psychological and medical support during the withdrawal process. These results highlight the importance of comprehensive clinical assessment and management strategies to address both physical discomfort and psychological distress in alcohol withdrawal.

Association of alcohol withdrawal symptoms with selected sociodemographic variables among alcohol dependent patients.

In this section, Chi-square test/ Fisher's exact was used to determine association of alcohol withdrawal symptoms with selected sociodemographic variable.

Table 5: Association of nausea and vomiting with age, marital status, occupation and duration of alcohol use (n=30)

SI. No	Socio demographic variables	Categories	n	Nausea and Vomiting n (%)		Test statistic value (Chi-square test / Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	12 12 6	75.0% 50.0% 50.0%	25.0% 50.0% 50.0%	1.875 (Chi-square test)	0.392
2.	Marital status	Married Single	20	55.0% 70.0%	45.0% 30.0%	0.625 (Chi-square test)	0.429
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled		40.0% 33.3% 54.5% 85.7% 75.0%	60% 66.7% 45.5% 14.3% 25.0%	4.133 (Fisher's exact test)	0.425
4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	55.6% 85.7% 50.0%	44.4% 14.3% 50.0%	2.586 (Chi-square test)	0.274

***Significant at p ≤ 0.05**

The data in table 5 shows that none of the demographic variables studied age, marital status, occupation, or duration of alcohol use showed a statistically significant association with the presence of nausea and vomiting among alcohol-dependent patients during withdrawal ($p > 0.05$ in all cases). This suggests that nausea and vomiting as a withdrawal symptom may occur independently of these demographic factors. Therefore, clinical management of this symptom should be applied universally among patients undergoing alcohol withdrawal, regardless of their demographic background.

Table 6: Association of tremors with age, marital status, occupation and duration of alcohol use (n=30)

SI. No	Socio demographic variables	Categories	n	Tremors n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	33.3% 41.7% 50.0%	66.7% 58.3% 50.0%	0.486 (Chi-square test)	0.891
2.	Marital status	Married Single	30	35% 50%	65% 50%	0.625 (Chi-square test)	0.429
3.	Occupation	Business Professional Skilled laborours	30	60% 33.3% 36.4%	40% 66.7% 63.6%	1.587 (Fisher's exact test)	0.917

		Unemployed Unskilled		42.9% 25%	57% 75%		
4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	44.4% 42.9% 35.7%	55.6% 57.1% 64.3%	0.205 (Chi-square test)	0.903

***Significant at p ≤ 0.05**

The data in table 6 shows that none of the demographic variables examined age, marital status, occupation, or duration of alcohol use showed a statistically significant association with the presence of tremors among alcohol-dependent patients (all p-values > 0.05). This suggests that tremors occur independently of demographic background in this sample, reinforcing the need for universal screening and management of tremors during alcohol withdrawal, regardless of a patient's personal or social characteristics.

Table 7: Association of paroxysmal sweats with age, marital status, occupation and duration of alcohol use

(N=30)

SI. No	Socio demographic variables	Categories	n	Paroxysmal Sweats n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	58.3% 41.8% 50%	41.7% 58.3% 50%	0.667 (Chi-square test)	0.717
2.	Marital status	Married Single	30	40% 70%	60% 30%	2.40 (Chi-square test)	0.121
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled	30	20% 100% 54.5% 57.1% 25%	80% 0 45.5% 42.9% 75%	5.503 (Fisher's exact test)	0.197
4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	55.6% 28.6% 57.1%	44.4% 71.4% 42.9%	1.683 (Chi-square test)	0.431

***Significant at p ≤ 0.05**

The data in table 7 shows that across all demographic variables analyzed age, marital status, occupation, and duration of alcohol use there was no statistically significant association with the presence of paroxysmal sweats among alcohol-dependent patients (all p-values > 0.05). This suggests that paroxysmal sweating occurs independently of demographic characteristics in this population, and clinical assessment and management should not rely on these factors when monitoring for this symptom during alcohol withdrawal.

Table 8: Association of anxiety with age, marital status, occupation and duration of alcohol use

(n=30)

SI. No	Socio demographic variables	Categories	n	Anxiety n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	50% 58.3% 33.3%	50% 41.7% 66.7%	1 (Chi-square test)	0.607
2.	Marital status	Married Single	30	50% 50%	50% 50%	0 (Chi-square test)	1
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled	30	60% 0 54.5% 57.1% 50%	40% 100% 45.5% 42.9% 50%	3.306 (Fisher's exact test)	0.488

4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	44.4% 71.4% 42.9%	55.6% 28.6% 57.1%	1.683 (Chi-square test)	0.431

***Significant at p ≤ 0.05**

The data in table 8 shows that none of the demographic variable's age, marital status, occupation, or duration of alcohol use showed a statistically significant association with the presence of anxiety during alcohol withdrawal (all p-values > 0.05). This suggests that anxiety is a symptom that may affect alcohol-dependent patients regardless of their demographic characteristics, and clinical assessment for anxiety should be applied consistently across all groups.

Table 9: Association of tactile disturbances with age, marital status, occupation and duration of alcohol use (n=30)

SI. No	Socio demographic variables	Categories	n	Tactile disturbances n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	83.3% 75% 83.3%	16.7% 25% 16.7%	0.312 (Chi-square test)	0.855
2.	Marital status	Married Single	30	85% 70%	15% 30%	0.938 (Chi-square test)	0.333
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled	30	100% 100% 72.7% 71.4% 75%	0 0 27.3% 28.6% 25%	2.457 (Fisher's exact test)	0.601
4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	66.7% 85.7% 85.7%	33.3% 14.3% 14.3%	1.429 (Chi-square test)	0.490

***Significant at p ≤ 0.05**

The data in table 9 shows that across all variables age, marital status, occupation, and duration of alcohol use the occurrence of tactile disturbances during alcohol withdrawal showed no statistically significant associations (all p-values > 0.05). This indicates that tactile disturbances are not influenced by demographic factors in this group and may appear regardless of background. Therefore, healthcare providers should monitor for this symptom universally in patients undergoing alcohol withdrawal.

Table 10: Association of auditory disturbances with age, marital status, occupation and duration of alcohol use (n=30)

SI. No	Socio demographic variables	Categories	n	Auditory Disturbances n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	66.7% 58.3% 50%	33.3% 41.7% 50%	0.486 (Chi-square test)	0.784
2.	Marital status	Married Single	30	60% 60%	40% 40%	0 (Chi-square test)	1
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled	30	100% 66.7% 54.5% 57.1% 25%	0 33.3% 45.5% 42.9% 75%	5.520 (Fisher's exact test)	0.232
4.	Duration of alcohol use	> 15 yrs 11-15yrs	30	44.4% 71.4%	55.6% 28.6%	1.396 (Chi-square test)	0.498

		6-10yrs		64.3%	35.7%		

***Significant at p ≤ 0.05**

The data in table 10 shows that there were no statistically significant associations between auditory disturbances and any of the demographic variables analyzed including age, marital status, occupation, and duration of alcohol use (all p-values > 0.05). This indicates that auditory disturbances can occur across all demographic groups during alcohol withdrawal, and their presence is not dependent on socio-demographic factors. Hence, universal monitoring for such perceptual symptoms is recommended during the withdrawal management process.

Table 11: Association of visual disturbances with age, marital status, occupation and duration of alcohol use (n=30)

SI. No	Socio demographic variables	Categories	n	Visual disturbances n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	58.3% 50% 50%	41.7% 50% 50%	0.201 (Chi-square test)	0.904
2.	Marital status	Married Single	30	50% 60%	50% 40%	0.268 (Chi-square test)	0.605
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled	30	100% 0 45.5 57.1% 50%	0 100% 54.5% 42.9% 50%	7.799 (Fisher's exact test)	0.087
4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	55.6% 42.9% 57.1%	44.4% 57.1% 42.9%	0408 (Chi-square test)	0.815

***Significant at p ≤ 0.05**

The data in table 11 shows that the analysis of the association between visual disturbances during alcohol withdrawal and selected demographic variables age, marital status, occupation, and duration of alcohol use revealed no statistically significant relationships. Age showed no significant association with visual disturbances (p = 0.904), indicating that this symptom occurs similarly across different age groups. Marital status also had no significant effect (p = 0.605), suggesting that being married or single does not influence the likelihood of experiencing visual disturbances. Duration of alcohol use was not significantly related to visual disturbances (p = 0.815), showing that length of alcohol consumption does not affect this symptom's occurrence.

Interestingly, occupation showed a near-significant trend (p = 0.087), indicating potential differences in the prevalence of visual disturbances across occupational categories.

Table 12: Association of head ache with age, marital status, occupation and duration of alcohol use (n=30)

SI. No	Socio demographic variables	Categories	n	Head ache n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	Age	18-34 35-44 >=45	30	25% 0 33.3%	75% 100% 66.7%	4.20 (Chi-square test)	0.122
2.	Marital status	Married Single	30	15% 20%	85% 80%	0.120 (Chi-square test)	0.729
3.	Occupation	Business Professional Skilled laborours Unemployed Unskilled	30	20% 0 27.3% 14.3% 0	80% 100% 72.7% 85.7% 100%	2.359 (Fisher's exact test)	0.670

4.	Duration of alcohol use	> 15 yrs 11-15yrs 6-10yrs	30	33.3% 0 14.3%	66.7% 100% 85.7%	3.257 (Chi-square test)	0.196

***Significant at p ≤ 0.05**

The data in table 12 shows that there were no statistically significant associations between headache during alcohol withdrawal and any of the selected demographic variables (all p-values > 0.05). This suggests that headache is a common symptom across all demographic groups and is not strongly influenced by age, marital status, occupation, or duration of alcohol use in this sample

Table 13: Association of agitation with age, marital status, occupation and duration of alcohol use

(n=30)

SI. No	Socio demographic variables	Categories	n	Agitation n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	**Age**	18-34 35-44 >=45	30	41.7% 41.7% 16.7%	58.3% 58.3% 83.8%	1.292 (Chi-square test)	0.524
2.	**Marital status**	Married Single	30	35% 40%	65% 60%	0.072 (Chi-square test)	0.789
3.	**Occupation**	Business Professional Skilled laborours Unemployed Unskilled	30	60% 33.3% 36.4% 28.6% 25%	40% 66.7% 63.6% 71.4% 75%	1.619 (Fisher's exact test)	0.805
4.	**Duration of alcohol use**	> 15 yrs 11-15yrs 6-10yrs	30	33.3% 0 14.3%	66.75 100% 85.7%	3.257 (Chi-square test)	0.196

***Significant at p ≤ 0.05**

The data in table 14 showed no significant associations between agitation and any of the socio-demographic variables analysed (all p-values > 0.05). This suggests agitation as a withdrawal symptom is common across all demographic groups and not strongly influenced by age, marital status, occupation, or duration of alcohol use in this sample.

Table 15: Association of orientation and clouding of sensorium with age, marital status, occupation and duration of alcohol use

(n=30)

SI. No	Socio demographic variables	Categories	n	Orientation and Clouding n (%)		Test statistic value (Chi-square test /Fisher's exact test)	p value
				No	Yes		
1.	**Age**	18-34 35-44 >=45	30	58.3% 50% 50%	41.7% 50% 50%	0.201 (Chi-square test)	0.904
2.	**Marital status**	Married Single	30	55% 50%	45% 50%	0.067 (Chi-square test)	0.796
3.	**Occupation**	Business Professional Skilled laborours Unemployed Unskilled	30	80% 66.7% 45.5% 42,9% 50%	20% 33.3% 54.5% 57.1% 50%	2.244 (Fisher's exact test)	0.691
4.	**Duration of alcohol use**	> 15 yrs 11-15yrs 6-10yrs	30	44.4% 71.4% 50%	55.6% 28.6% 50%	1.269 (Chi-square test)	0.530

***Significant at p ≤ 0.05**

The data in table 15 shows there was no statistically significant association between orientation and clouding of consciousness symptoms and the demographic variables of age,

marital status, occupation, or duration of alcohol use among alcohol-dependent patients (all p-values > 0.05). This suggests that these withdrawal symptoms occur relatively independently of these demographic factors in the studied population.

DISCUSSION

There is no statistically significant association between alcohol withdrawal symptoms and the demographic variables of age, marital status, occupation, or duration of alcohol use among alcohol-dependent patients (all p-values > 0.05). This suggests that these withdrawal symptoms occur relatively independently of these demographic factors in the studied population.

Several studies support the finding that alcohol withdrawal symptoms among dependent patients are often not strongly associated with demographic variables such as age, marital status, occupation, or duration of use. Analysis from national surveys and treatment samples has indicated that while withdrawal symptoms are more likely to occur with higher alcohol consumption, associations with sociodemographic factors like age, marital status, employment, or education are generally weak and often not significant after statistical adjustment. Large regression analyses found no clear differences in withdrawal symptom prevalence based on age, marital status, occupation, or education, but did note some variation among ethnic groups and with levels of alcohol intake.

However, some studies challenge the uniformity of these findings and report specific demographic influences on withdrawal symptoms. A recent study found that age was positively correlated to anxiety and impulsivity symptoms, while education was negatively associated with emotional and withdrawal-related symptoms among alcohol use disorder patients. Marital status was also found to affect aggression levels in withdrawal, though it did not affect other core withdrawal symptoms. Moreover, certain ethnic groups were noted to have different withdrawal symptom rates, with blacks experiencing fewer alcohol withdrawal symptoms compared to whites and Hispanics, and married patients sometimes experiencing distinct clinical outcomes compared to divorced or separated individuals.

The findings of this study reveal that alcohol withdrawal is associated with a broad spectrum of symptoms, affecting both the physical and psychological well-being of alcohol-dependent patients.

The most commonly reported symptom was headache (83.3%), which is consistent with existing literature indicating that headaches are a frequent physical complaint during the acute withdrawal phase. Tremors (60%) and sweating (50%) were also prevalent, reflecting the autonomic hyperactivity commonly seen in alcohol withdrawal.

Psychological symptoms such as agitation (63.3%) and anxiety (50%) were reported by a significant proportion of participants. These findings suggest that emotional dysregulation and heightened arousal are key features during early withdrawal, aligning with studies that emphasize the need for psychological support during detoxification.

Interestingly, perceptual disturbances such as visual (46.7%), auditory (40%), and tactile (20%) symptoms were also reported, although less frequently. These may indicate early signs of alcohol withdrawal delirium in more severe cases and highlight the importance of close clinical monitoring.

The presence of clouding of consciousness and disorientation (46.7%) further supports the possibility of cognitive impairment during the withdrawal process, which can range from mild confusion to more severe presentations such as delirium tremens if left untreated.

Overall, these findings emphasize the need for comprehensive assessment and symptom-targeted interventions in the management of alcohol withdrawal.

Nursing implications

The present study had significant implications in the field of nursing administration, nursing education, nursing practice, and nursing research. The role of nurse administrators, nurse educators, and nursing staffs are crucial in managing and reducing alcohol withdrawal symptoms in patients with alcohol dependence syndrome.

1. Nursing Education

- **Curriculum Integration**: Policies should mandate the integration of substance use disorders (SUD), especially alcohol dependency and withdrawal management, into undergraduate and postgraduate nursing curricula.
- **Simulation-Based Training**: Policies should support the incorporation of simulation-based learning to train nursing students in managing alcohol withdrawal scenarios, including use of CIWA-Ar scale, monitoring, and emergency protocols.
- **Interprofessional Education (IPE)**: Encourage collaborative learning between nursing, psychiatry, psychology, and social work students to foster team-based management of addiction.
- **Community Health Focus**: Nursing education policy should emphasize the role of nurses in community-based alcohol prevention and early detection programs

2. Nursing Administration

- **Standardized Protocols**: Develop and implement standardized nursing care protocols

and clinical pathways for managing alcohol withdrawal symptoms.

- **Workforce Training and Development**: Institutional policies should ensure regular in-service training and capacity-building workshops for psychiatric and general nurses on substance withdrawal management.
- **Staffing Policies**: Appropriate nurse-patient ratios and staffing policies must be ensured in psychiatric wards to manage acute withdrawal safely and efficiently.
- **Mental Health Integration**: Support policies that integrate addiction care into general hospital settings, requiring administrative preparedness and cross-training of staff.

3. Nursing Research

- **Encourage Clinical Studies**: Policy should promote nursing-led research on substance use, particularly the effectiveness of nursing interventions in managing withdrawal symptoms.
- **Grant and Funding Opportunities**: Establish specific research grants and incentives for nurse researchers focusing on addiction care and withdrawal management.
- **Database and Documentation Systems**: Policies should support the creation of centralized data systems to document and analyse withdrawal trends, aiding evidence-based nursing practices.
- **Community-Based Research**: Promote research focused on community perceptions, stigma, and help-seeking behaviour among alcohol-dependent individuals, led by community health nurses.

4. Nursing Practice

- **Early Screening and Identification**: Nurses should be empowered through policy to carry out routine screening for alcohol use disorders in all healthcare settings.
- **Use of Standard Assessment Tools**: Mandate the use of validated tools like the CIWA-Ar (Clinical Institute Withdrawal Assessment of Alcohol Scale - Revised) to assess withdrawal severity.
- **Holistic and Patient-Centred Care**: Nursing practice guidelines must emphasize psychosocial support, patient education, and family counselling as part of withdrawal management.
- **Follow-up and Continuity of Care**: Policies should enable nurses to take a lead role in follow-up care, including home visits, telephonic counselling, and referral coordination to rehabilitation centres.

CONCLUSION

Based on the findings, the study being concluded that, this study provides valuable insights into the symptom profile of alcohol withdrawal among alcohol-dependent patients. The findings demonstrate that withdrawal manifests with a variety of physical, psychological, and perceptual symptoms, with headache, tremors, and agitation being the most common.

Given the potential severity and diversity of symptoms, it is essential that healthcare providers implement early screening, individualized care plans, and psychological support during the detoxification process. These steps are crucial in reducing complications and promoting safe and effective recovery.

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