

**Prevalence, Psychosocial Impact and Correlates of Alcohol use
among Kashmiri-migrants in Jammu District,
Jammu and Kashmir, India**

Dr Vishal Raina

**Dissertation submitted in partial fulfilment of the requirement
for the award of the degree of**

Master of Public Health



Achutha Menon Centre for Health Science Studies

**Sree Chitra Tirunal Institute for
Medical Sciences & Technology**

Trivandrum, Kerala

October 2013

Certificate

I hereby certify that the work embodied in this dissertation titled ‘Prevalence, Psychosocial impact and Correlates of alcohol use among Kashmiri Migrants in Jammu District, Jammu and Kashmir, India’ is a bonafide record of original research work undertaken by Dr Vishal Raina, in partial fulfilment of the requirements for the award of the degree of Masters of Public Health, under my guidance and supervision.

Guide:

Dr KR Thankappan

Professor and Head

Achutha Menon Centre for Health Science Studies

Sree Chitra Tirunal Institute for Medical Sciences and Technology

Trivandrum, Kerala, India

October, 2013

Declaration

I hereby declare that this dissertation work titled ‘Prevalence, Psychosocial impact and Correlates of alcohol use among Kashmiri Migrants in Jammu District, Jammu and Kashmir, India’ is an original work of mine and it has not been submitted to any institution or university.

Dr Vishal Raina

Achutha Menon Centre for Health Science Studies

Sree Chitra Tirunal Institute for Medical Sciences and Technology

Trivandrum, Kerala, India

October, 2013

**DEDICATED TO MY CHILDREN
ISHAAN AND RUHAAN**

Acknowledgment

I would first thank my Guru Rev Raghunath Kokiloo (Baigash) and my Father

late SH Autar Krishen Raina (Papa), for being always there with me to shower their blessings.

Foremost, I would like to convey my earnest gratitude for my guide Dr KR Thankappan, Professor and Head, Achutha Menon Centre for Health Sciences Studies (AMCHSS) for his supervision, advice and guidance which kept me steering throughout the course of the dissertation from its conception to completion. Though patient with my shortcomings, perfection was his motto.

I would like to thank all the faculties at AMCHSS: Dr V Raman Kutty, Dr PS Sarma, Dr TK Sundari Ravindran, Dr Mala Ramanathan, Dr K Srinivasan, Dr Biju Soman, Dr Ravi Prasad Varma, Dr Manju R Nair and Ms Jissa VT for providing their valuable suggestions to improve the study.

I extend my heartfelt thanks and gratitude to Sanjeev Kumar Singh (MPH 2011), Dr GK Mini (Research Fellow, AMCHSS), Dr Suganthi J (MPH 2012 Batch) and Kirti Sundar Sahu (MPH 2013 Batch) for their timely and unconditional help during my dissertation.

I am thankful to all the study subjects who participated in the study, without them it would not have been possible to do this piece of work.

I wish to convey my great regards to my mom (Tathi) for her being a constant inspiration.

It will not be complete without conveying my love and regards to my better half, (Pappi) for her patient endurance of my prolonged absence from family, with sweet words of constant assurance for me and being a constant inspiration.

Thank You.

Table of Contents

Abstract

Chapter 1: Introduction and Review of Literature 1

1.1	Background	2
1.2	Global Scenario	3
1.3	Global alcohol use and Migration	4
1.4	Global alcohol use and its psychosocial impact	6
1.5	Indian scenario	7
1.6	Alcohol use, Migration and its psychosocial impact in Indian context	9
1.7	Scenario in Jammu and Kashmir	9
1.8	Correlates of alcohol use	10
1.9	Rationale of the study	11
1.10	Objectives	13

Chapter 2: Methodology 14

2.1	Study type	15
2.2	Study setting	15
2.3	Sample size	15
2.4	Sample selection procedure	16
2.4.1	Study population	16
2.4.2	Identifying clusters	16
2.4.3	Selection of households and study participants	17
2.4.4	Data collection technique	18
2.5	Data collection and analysis	18
2.6	Time frame	19
2.7	Expected outcomes	19
2.8	Ethical considerations	20
2.9	Operational definitions and tools used for the study	21

Chapter 3: Results 23

3.1	Sample characteristics	24
3.2	Results of Bivariate analysis	33
3.3	Results of Multiple Logistic Regression	40

Chapter 4: Discussion and Conclusion 43

4.1	Discussion	44
4.2	Conclusion	49
4.3	Strengths	50
4.4	Limitations	50

References

Annexures

Annexure 1a, b : Cluster Identification sheet

Annexure 2 : Structured Interview Schedule

Annexure 3 : Research subject information sheet and consent form

List of Tables

Socio-demographic Characteristics

3.1	Socio-demographic characteristics of Study population	25
3.2	Prevalence of alcohol use	27
3.3	AUDIT Domains and Risk levels	27
3.4	Correlates of alcohol use among current users of alcohol	28
3.5	Psychosocial determinants among Migrants, Non-migrants, Current users of alcohol in Migrants and Non-migrants	30
3.6	Psychological determinants among Migrants, Non-migrants, Current users of alcohol in Migrants and Non-migrants	31
3.7	Levels of Depression among Migrants, Non-migrants, Current users of alcohol in Migrants and Non-migrants	32

Results of Bivariate Analysis

3.8	Patterns of current use of alcohol by Migrants and Non-migrants	34
3.9	Non-Parametric test for BDI among Migrants, Non-migrants, Current users of alcohol Migrants and Non-migrants (Kurskal-Wallis Test)	34
3.10a	Predictors of alcohol use by Migrants	35
3.10b	Predictors of Psychosocial impact by Migrants	36
3.11a	Predictors of alcohol use by Non-migrants	37
3.11b	Predictors of Psychosocial impact by Non-migrants	37
3.11c	Predictors of Psychological impact by Non-migrants	39
3.12	Correlates of current use of alcohol for Migrants	40

Results of Multiple Logistic Regression Analysis

3.13	Predictors of Current use of alcohol by Migrants	41
3.14	Predictors of Current use of alcohol by Non-migrants	42

Glossary of Abbreviations Used

DALY	Disability Adjusted Life Year
YLD	Years Lost Due To Disability
LMIC	Low and Middle Income Countries
HIC	High Income Countries
PSTD	Post Traumatic Stress Disorder
NFHS	National Family Health Survey
J & K	Jammu and Kashmir
PPS	Probability Proportional to Size
PI	Principal Investigator
JMC	Jammu Municipal Corporation
AUDIT	Alcohol Use Disorder Identification Test
BDI	Becks Depression Inventory
INR	Indian Rupees
SD	Standard Deviation

ABSTRACT

Background: Data on alcohol use and its predictors among migrant population are extremely limited in India. This study was aimed to explore the prevalence, psychosocial impact and correlates of alcohol use among migrant population.

Methodology: A community based cross sectional survey was conducted among 400 men (200 migrants and 200 Non migrants) selected by cluster sampling method from Jammu District of Jammu and Kashmir State. Information on Socio demographic characteristics, alcohol use, psychosocial impact and correlates of alcohol were collected using structured interview schedule. Multiple logistic regression analysis was done to find out the factors associated with alcohol use.

Result: Prevalence of self reported current use of alcohol among migrants was 44 % (95% CI 37-51) and non migrants was 49.50 % (95% CI 43-56). All the current users of alcohol irrespective of the migration status were using alcohol to hazardous level whereas 25 % migrant men and 59.59% non migrant men reported dependent symptoms. Harmful use was reported by 61.36 % migrants and 72.72 % Non migrants. Migrant men with average monthly Household Expenditure of ≤ 10000 rupees (OR-3.68, 95 % CI-1.85, 7.32), those employed in Government (OR-3.78, 95 % CI-1.58, 9.03) and those who lived in joint families (OR 2.12: CI-1.14, 3.92) were more likely to use alcohol, whereas non migrant men aged 36-45 years (OR-2.14, 95% CI-1.09, 4.23) and ≥ 46 years (OR-2.99, 95 % CI-1.49, 5.99) were more likely to report current alcohol use compared to their younger counterparts.

Conclusion: Measures to quit alcohol use among both groups are warranted by interventions focusing on poorer households, those employed in government and those who live in joint families among migrants and older men among non-migrants.

Chapter 1

Introduction and Review of Literature

1.1 Background

Alcohol has been a part of various cultural traditions in different societies and its relationship to ill health has been recognized as an important public health challenge in the present day. The harmful use of alcohol is a significant contributor to the global burden of disease and is listed as the third leading risk factor for premature deaths and disabilities in the world. Nearly five percent of the global Disability Adjusted Life Years (DALYs) are attributed to alcohol use.¹ Alcohol is one of the four most common modifiable and preventable risk factors for major non-communicable diseases. A significant amount of the public health burden comes from intoxicated behavior of alcohol use, resulting in accidents, violence and other behavioral consequences.² Alcohol use is related to more than 60 different medical conditions which depends on patterns of drinking, especially irregular heavy drinking.³ In 2004, 4.5 percent of the global burden of disease and injury was attributed to alcohol use. Alcohol-attributable deaths from neuropsychiatric disorders consist of 65 percent deaths due to alcohol use disorders and 35 percent deaths due to epilepsy and unipolar depressive disorder.⁴ Depression is the leading cause of years lost due to disability (YLD). In all income strata, alcohol dependence and depression is among the 10 leading causes of disability.¹

Alcohol has an effect on the physical, social, emotional, behavioral and financial well-being of an individual, family and the society.⁵ The social consequences of alcohol use can affect individual's social behavior and his interaction with social environment either subjectively or objectively.⁶ Alcohol is associated with many serious social issues, including socio-economic problems, violence, child neglect and abuse, and absenteeism in workplace. Death, disease and injury caused by alcohol consumption have

socioeconomic impacts, including the medical costs borne by governments, and the financial and psychological burden to families.

There are 14.9 million refugees and 22 million internally displaced persons in the world and alcohol use is widely prevalent in them.^{7, 8} Feeling of lost identity, anxiety and depression are attributed to alcohol consumption in them. Exposure to stressors like economic hardship, occupational problems, acculturation difficulties, and social isolation may also contribute to increased alcohol use.⁸ Alcohol use may act as a coping strategy in response to such exposure to traumatic events and social stressors.

Data on alcohol related problems are limited in India, particularly on alcohol and its effect on migrant populations. Hence this study was conducted to describe the prevalence of alcohol consumption and its psychosocial impact on the Kashmiri migrants residing in Jammu.

1.2 Global scenario

Alcohol has been identified as a leading risk factor for death and disability globally. Alcohol kills 2.5 million people annually and is the third leading risk factor for deaths globally. It also contributes to four percent of all deaths in the world. It is the leading risk factor for death in males aged 15-59 years and 6.2percent of all male deaths are attributable to alcohol. Males have far greater rates of total burden attributed to alcohol than women – 7.4 percent for men compared to 1.4percent for women.⁹

Global prevalence of alcohol use disorders ranges from 0 to 16 percent, with the highest prevalence in Eastern Europe.¹⁰ Alcohol use was attributed to 4.4 percent of total DALYs globally.¹

The total adult per capita consumption of alcohol is highest in countries of Eastern Europe ranging from 15-21 liters per year. The Russian Federation and surrounding countries report the highest level of alcohol-attributable harm and almost one out of every five years of life lost due to premature mortality or disability is attributable to alcohol in this region.¹⁰

The percentage of deaths and DALYs among the Low and Middle Income Countries (LMICs) in the year 2004 was 4 percent and 4.2 percent respectively in contrast to High Income Countries (HICs) where it was 1.6 percent and 6.7percent.¹ The burden of disease attributable to alcohol and drug use in the year 2010 was 2.9 (2.6-3.2) million deaths and 4.8 (4.3-5.4) percent of DALYs.¹¹

The perceived use of alcohol among people of certain districts of Kenya was found to be 65.4 percent while the actual prevalence was 18.1 percent, with prevalence among males and females as 34.4 and 3.2 percent respectively.¹²

A study conducted among the tea estate workers in Sri Lanka found that majority (69 percent) of the workforce was consuming alcohol and among them 89 percent were daily drinkers.¹³ A study from Ireland revealed that 69 percent of deaths attributable to alcohol are from chronic diseases compared to acute injuries.¹⁴

1.3 Global Alcohol Use and Migration

Globally, the studies conducted among internally displaced persons show significant degree of psychological stress among refugees with relatively high levels of physical and psychological dysfunction in them.⁷

Alcohol-use disorders are associated with depressive episodes, severe anxiety, insomnia, and suicide, abuse of other drugs and substantial morbidity and mortality among users.¹⁵ Alcohol and other substance use are increasing among conflict-affected and displaced populations which are a matter of public health concern.^{8, 16}

Economic constraints and other psychosocial factors lead to negative mental health in the event of adapting to the new environment among the displaced population.¹⁷ A strong linkage between hopelessness caused by displacement and alcohol use was found in Burma.¹⁸

Displacement and its distressful events are found to be significantly associated with higher mental distress and lower quality of life.¹⁹ The prevalence of Post-Traumatic Stress Disorder (PTSD) among men was 50.3 percent as compared to 36.5 percent among women in a displaced community due to violence in Croatia. Alcohol dependence was 60.5 percent in men and 8.1 percent in women, and alcohol dependence, co morbidity with PTSD was 69.6 percent in men and 11.7 percent in women.²⁰

Nearly all internally displaced population in Chechnya reported somatic complaints, anxiety/insomnia, depressive feelings or social dysfunction. The incidence of anxiety and depression was 28 percent and 15 percent respectively. Hazardous drinking was strongly associated with common mental disorders and suicide and domestic violence, especially among women.²¹

Alcohol was the most common substance abused by the residents of the refugee camps in Kenya and Guinea; they consumed both branded and home brewed alcohol.²²

Displacement was found to have a variety of impacts such as dispossession, livelihood restriction, hopelessness and uncertain future which induced the communities to various substance uses along with the change in the social values resulting in harmful patterns of alcohol use.²³

Among South-east Asians in America, 63 percent of women and 65 percent of men reported current drinking and 15 percent of women and 24 percent of men reported binge drinking respectively.²⁴

The prevalence of depression ranged from 3 – 81 percent among various migrant populations according to a Meta analysis.²⁵

1.4 Global Alcohol use and its psychosocial impact

At any given time about 10 percent of the adult population and about one in three adults attending a primary health center suffer from a mental disorder. Depression, anxiety, alcohol and drug abuse are the most frequent of all mental disorders.²⁶

Depression and alcoholism are associated with considerable morbidity, disability, and mortality, and co-occur commonly.²⁷ Negative life events and drinking practices are positively related to depression in a study in Los Angeles.²⁸

The reduced contact with family, friends and groups or associations was related to increase drinking habits. There is a cyclical nature of this relation suggesting that heavy alcohol use decreases social contact, which then indirectly increases subsequent alcohol use through decrease in perception of available social support and increase in depression. Alcohol use is indirectly related to social contact and support; positively related to depression.²⁹

Alcohol use is often said to increase the risk of negative consequences but it rarely acts alone in determining them. Alcohol induces considerable emotional instability. The negative effects of excessive drinking on non-drinking family members particularly children remain a cause of concern and a pertinent public health issue. Studies have shown that unemployment and heavy drinking tend to go together.^{5, 30}

There was 41.7 percent increased frequency of drinking after the September 11 attack in the US among previous drinkers. And among those with an increased drinking pattern, 20.8 percent reported at least one extra drink a day. This shows that any emotional stress or trauma might also lead to either increase in drinking episodes or an increase in the frequency of drinking.³⁰

1.5 Indian Scenario

India, one of the largest producers of alcohol in the world contributes to 65 percent of the production in South East Asia and has nearly 62 million users, 17 percent of whom are alcohol dependents.³¹ Alcohol use has registered a steady growth rate of 10 to 15 percent during the past decade with greater expansion seen in southern parts of India. Studies revealed that nearly 30-35 percent of adult men and 5 percent of adult women consume alcohol. (Male to Female ratio being 6:1).³² Alcohol contributes about 4 percent of total mortality and 4 to 5 percent of DALYs.³

The per capita consumption of alcohol by adults, 15 years and above in India had increased by 106.7 percent between 1970–72 and 1994–96. Indian drinking pattern had changed from occasional and ritualistic use to social use and today the common purpose of consuming alcohol is to get drunk.^{33, 34}

The National Family Health Survey III (2005-06) reported that alcohol use among Indian women (15-49 years) and men (15-54 years) were 2.2 percent and 32.0 percent respectively.³⁵ The prevalence of current use of alcohol in Indian states ranges from 7 percent in Gujarat to 75 percent in Arunachal Pradesh and alcohol use among women exceeded 5 percent only in the north-eastern states.³⁶

Interestingly, the age of initiation of drinking is progressively coming down. The increasing production, distribution, promotion and easy availability of alcohol coupled with the changing values of society has resulted in alcohol-related problems emerging as a major public health concern in India.³²

India being a diverse nation with cultural variations among ethnic, religious and linguistic groups, and there are major differences between the urban and rural areas so one cannot accurately characterize the drinking patterns of all Indian ethnic and cultural groups based on the findings from just one of these groups.³⁷

Alcohol use in India is highly gendered and is characterized by a high proportion of hazardous drinking among men which includes consumption of large amount of alcohol, the high-risk patterns such as drinking alone and bingeing.²⁶

A community based household survey conducted in Bangalore found that 46 percent of the households were alcohol consumers and more than 2/3rds of the alcohol consumers were between the age group of 26-45 years while 10 percent of the consumers were adolescents and youths (16-25 years). Nearly 60 percent of the subjects were long term users (more than ten years of use) while 5 percent were recent users (within 1-2 years).³¹

1.6 Alcohol use, Migration and its psychosocial impact in Indian context

The prevalence of alcohol use was significantly associated with migration of people from rural to urban area in India when compared to non migrants.³⁸ About one fifth of the Nepalese migrants in India consumed alcohol.³⁹

A study revealed neuro-psychiatric effects of alcohol use among Indian men and women to be 17 and 2 percent respectively.³ Psychiatric morbidity was found to be more in the displaced communities compared to the non displaced communities in Andaman and Nicobar Islands post tsunami.⁴⁰

The common behaviors of alcohol users are disturbance of peace at home, not taking responsibility and being abusive which reflects in family conflicts and psychological stress. Alcohol users are also associated with excessive spending and workplace absenteeism which worsens the financial problems of the family.⁴¹

Although there are significant amount of migrants within the country and from the neighboring countries but very few literature are available regarding alcohol use and its psychosocial impact among migrants.

1.7 Scenario in Jammu & Kashmir

According to NFHS III, prevalence of alcohol use among men and women in J&K is 12.5 percent and 0 percent.³⁶ J & K belongs to 10 of the 28 Indian states earning more than 15 percent of the total revenue from alcohol.³²

Traumatic events due to turmoil in J&K have a profound and lasting impact on the emotional, cognitive, behavioral and psychological functioning of individuals, resulting in 55.7 percent prevalence of depression across all age groups.⁴²

The incidence of psychiatric morbidity among the migrants settled in Jammu was found to be 33.66 percent with major depressive episodes being the most common psychiatric morbidity followed by generalized anxiety disorder and post-traumatic stress disorder.⁴³

1.8 Correlates of Alcohol Use

Hazardous alcohol use has been found to be related to gender and age (being male 20- 29 years of age), being single (unmarried), lesser years of schooling, unemployment, being ex smoker or current smoker in a study conducted in Brazil.⁴⁴ Religion was found to be related to alcohol use among individuals in a study conducted in South Africa.⁴⁵

Several studies have also found that psychological distress and lower standard of living were related to alcohol use.^{46, 47} A study conducted in London among mid-adolescents correlated that alcohol use was more among males than females and further associated alcohol with use of cannabis, spending more time with friends who drink, school exclusion, and being in trouble with teachers.⁴⁸

Another study revealed social and physical pleasure and social assertion as the predictors for alcohol use while younger age was found to be an important contributing predictor of quantity and frequency for females.⁴⁹

A study conducted in the United States found that current alcohol use was more prevalent among men, whites, and younger and unmarried individuals and those with lower income.⁵⁰ Influences of peer, neighborhood and parents were found to be strongly associated with alcohol consumption among adolescents in a study conducted in Nigeria.⁵¹

Nuclear family type and present family history of alcohol use were found to be related to hazardous drinking in Vellore, South India.⁵² Lower standard of living and years of schooling are related to alcohol use which was revealed from a study conducted in Goa, India.⁵³

In a study conducted in a community in western India the prevalence of alcohol use by religion showed wide variations with the highest prevalence for ever use of alcohol was among Christians (61.2 percent) followed closely by Buddhists (58.6 percent) and the lowest prevalence was among Muslims (9.4 percent). The prevalence of alcohol use was found high among illiterates (25.6 percent), those with primary education (27.1 percent) and then declined to 18.1 percent among those with college education.⁵⁴

1.9 Rationale for the study

Jammu & Kashmir, during the last twenty two years has witnessed a huge amount of conflict, particularly in the Kashmir province leading to mass migration of people from Kashmir to Jammu and other parts of the country. Migrant population contributes to 21 percent of the total population of Jammu. (Total population = 6, 51, 826 out of which Migrant population from Kashmir=1, 42, 424) Alcohol use among migrant population is reported to be high due to the feeling of hopelessness and adjusting to new environment.

Factors such as easy availability of alcohol, peer pressures and false perceptions about the alcohol are catalyzing the problem.

Several studies globally have shown increase in the alcohol use among conflict-affected and displaced communities which is a matter of public health concern. Studies have even shown that economic constraints, hopelessness, anxiety and other psychosocial factors due to migration and conflict lead to negative mental health in the event of adapting to the new environment among the displaced population.

The migrant population from Kashmir has been exposed to all the above factors such as hopelessness, anxiety, economic constraints, negative mental health and all this is reported to be a factor for substance abuse particularly alcohol.

Alcohol use and its psychosocial impact have not been studied in this migrant population although significant evidence exists about the association of alcohol use with displaced communities globally.

There is a paucity of studies on alcohol use and migration in India. For Jammu and Kashmir, no studies on alcohol related issues have been identified in the public domain during my literature search, moreover alcohol use and migration is unexplored. In the Kashmir province the alcohol consumption and availability are lower compared to Jammu. Since a larger number of people have already migrated from Kashmir to Jammu there is a possibility that the alcohol consumption in this migrant population is higher than the local resident Jammu population due to better availability and due to the increased stress due to migration. This has not been studied earlier. Therefore this study is planned with the following objectives.

1.10 Objectives

1.10.1 Major Objective

To determine the prevalence of alcohol use and its psychosocial impact among the Kashmiri-migrant men in comparison to local resident men of Jammu.

1.10.2 Minor Objective

To identify the correlates of alcohol use for both the populations.

Chapter 2

Methodology

2.1 Study type

The study was a community-based cross sectional survey.

2.2 Study setting

Jammu district, Jammu and Kashmir, India.

2.3 Sample Size

Sample size calculation was done using Fleiss formula,

$$\text{Sample size } (N') = \frac{2 * (Z_{1-\alpha/2} + Z_{1-\beta})^2 * P' (1-P')}{(P_1 - P_2)^2}$$

Where

$$\alpha \text{ error} = 0.05 \longrightarrow Z_{1-\alpha/2} = 1.96,$$

$$\text{Power of test, } (1-\beta) = 80\% \longrightarrow Z_{1-\beta} = 0.84,$$

P_1 = Proportion of Population Exposed to Alcohol with migration. 0.32 was based on the pilot study done among these migrants.

P_2 = Proportion of population exposed to alcohol without migration. (Local Population) 0.125 was based on the NFHS III data.

P' = Combined mean of the proportions (P_1 & P_2) ($P' = 0.2225$)

$$N' = \frac{2 * (1.96 + 0.84)^2 * (0.2225 * 0.7775)}{(0.320 - 0.125)^2}$$

$$N' = \frac{2 * 7.84 * 0.1730}{(0.195)^2}$$

$$N' = 71.$$

Using Fleiss Continuity Correction the total Sample Size calculated is:

$$N=N'+1/\delta$$

$$\text{Where, } \delta = Z_{1-\alpha/2} \sqrt{P_1(1-P_1)/N'} + Z_{1-\beta} \sqrt{P_2(1-P_2)/N'}$$

$$\delta = 1.96\sqrt{0.32(0.68)/71} + 0.84\sqrt{0.125(0.875)/71}$$

$$\delta = 1.96*0.0547+0.84*0.0387$$

$$= 0.1397$$

$$N= 71+1/0.1397 = 78$$

The sample size calculated was for one group of the population and for two groups it will be 156. Taking into consideration Design Effect of 2 (Cluster Sampling) and considering Non Response rate of 20 percent, the sample size was 373 which was further rounded off to 400.

2.4 Sample selection procedure

2.4.1 Study population: Men 18-64 years of age among migrants from Kashmir and the local resident men of Jammu.

2.4.2 Identifying cluster: Study clusters were identified by Multistage Cluster Sampling method. All six zones of the district were taken where migrants from Kashmir were living with the local residents of Jammu. All the twenty wards of selected zones have been enumerated, and ten clusters were selected using Probability Proportional to Size (PPS) method (Annexure 1A & 1B). For this, wards of these zones along with their individual population sizes were listed and cumulative total population is obtained by summation. Then the total cumulative population was divided by total number of desired clusters (n=10) to get 'Sampling Interval' as mentioned below.

⇒ ***Sampling Interval=Total population of the six zones / Total number of clusters.***

Then, five digit random number between zero (0) and sampling interval was selected randomly from the random number table. The first cluster was identified as the cluster where the cumulative population was greater than or equal to the random number. Subsequently the sampling interval was added to the random number. The second cluster was identified whose cumulative population was equal or exceeded the number thus obtained. In this way total ten clusters were selected from six zones of Jammu for this study. For the study purposes the combined population of the migrant and the local resident population were added together.

2.4.3 Selection of households and study participants: Principal Investigator (PI) was solely responsible for the recruitment of the participants based on the inclusion criteria. The recruitment process was done through the household visits by the PI. In each cluster 40 participants (20 migrants and 20 local residents) were selected [total participants (400) / total number of clusters (10)] and were interviewed. The center location of the cluster was confirmed and the direction of the first household was identified using ‘spinning a bottle’ method. Number of houses which existed along the line from the central location to the edge of the cluster was counted. A random number was selected from this counting and that was the first house to be visited. The second household was the one which is nearest to the first one, whose front door was closest to the front door of the household that has been just visited. The same procedure was continued until the total sample of 20 participants for migrants and 20 participants of local residents in each cluster were obtained. This process was followed in all the selected 10 clusters in six zones till a

sample size of 400 participants was obtained. Eligible household was visited twice during the day of survey for unavailability of the eligible participants. For non response or ineligibility, next household was chosen as it's supplementary. The eligible participants in the household were screened using screening section of the interview schedule. Selection of the participants was done on the basis of lottery method when more than one participant was found eligible and present in the household.

2.4.4 Data collection technique: Data were collected using structured interview schedule (Annexure 2) developed by the Principal Investigator based on the objectives of the study by considering the inclusion criteria as stated below.

Inclusion criteria

- Men aged 18- 64 years.
- Kashmiri Migrant Men Registered with Relief and Rehabilitation Commissioner for Migrants, Government of J&K.(based on a valid card)
- Household registered with Jammu Municipal Corporation(JMC) for local resident men or Voter ID issued by the Election Commission of India.
- Consented and willing to participate in the study

2.5 Data collection and analysis

Data were collected from selected eligible participants using structured interview schedule translated into local language .The interview schedule had six sections viz. screening process to identify participant's eligibility, general information, background characteristics, prevalence and patterns of alcohol use, Alcohol Use Disorder Identification Test (AUDIT) questionnaire, Likert scale for measuring Psychological

impact and Beck's depression inventory a self rated Depression scale. Self reporting was considered as the source of information.

At the first step, all the data sheets were checked manually and corrected. Later, the data were cleaned using computerized cleaning process. Then, data were entered into Microsoft Excel 2007. Data analysis process was done using SPSS software, version 17 which was started once the data entry process was finished. In addition to descriptive data analysis, statistical tests were also performed to find out the significant relation between the different variables. Data analysis was done on the basis of research objectives.

2.6 Time Frame

2.6.1 Study period: 4 ½ months, June 18, 2013 to October 30, 2013

2.6.2 Data collection period: June 18, 2013 to August 31, 2013

2.6.3 Data extraction, entry, coding and analysis: September 1, 2013 to October 15, 2013

2.6.4 Report writing: October 16, 2013 to October 29, 2013

2.6.5 Submission of dissertation: October 31, 2013

2.7 Expected outcomes

This study for the state of Jammu and Kashmir shall provide an insight of the prevalence, patterns, psychosocial impact and correlates of alcohol use by migrant men in comparison to local resident men of Jammu.

2.8 Ethical consideration

The study was conducted only after having obtained No Objection Certificate from Directorate of Health Services, Jammu Department of Health and Family Welfare, Government of Jammu & Kashmir and the approval from Institutional Review Board of Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum. This study complied with the basic ethical principles of research. Written informed consent (Annexure 3) for participating in the study was taken from the study participants. Consent form had also research subject information sheet containing the information about the study and the contact details of principal investigator, and was translated into local language. One copy of the signed informed consent form including research subject information sheet was handed over to the participants. In case of illiterate study participants, research subject information sheet was explained to participant before taking his thumb impression and the same was witnessed by another literate person. Respondents had the right in either accepting or refusing to participate, and in withdrawing participation at any time of the study without any explanation and consequence. Respondents were informed regarding the voluntary nature of participation, study objectives and the potential benefits and risks of participation. Utmost priority was given to protect the privacy and confidentiality of the personal information of the participants and the collected information were not shared with anyone not involved in the study. At no stage identity of the participants shall be revealed and for this a six digits unique identification number with block, cluster, and participant code was assigned to each participant. All hard copies of filled interview schedules and consent forms are kept under the custody of principal investigator and will be destroyed properly when they are deemed no longer needed or after three years of dissertation report submission, whichever comes first.

2.9 Operational Definitions and Tools used for the Study

2.9.1 Kashmiri Migrant

Migrant means a person who migrated from Kashmir Valley after 1st November,1989 and is registered with the Relief and Rehabilitation Commissioner Migrants at Jammu.(SRO 412,dated 30 th December,2009, Revenue Department ,Government of Jammu & Kashmir)

2.9.2 Local Resident Men (Non-migrant)

Local Resident Men are persons who are permanent residents of Jammu and their households are registered with Jammu Municipal Corporation or having a Voters ID issued by the Election Commission of India.

2.9.3 Current users of alcohol

Current users of alcohol are those having drunk an alcoholic beverage within the past one month.

2.9.4 AUDIT Scale

The WHO-AUDIT questionnaire has 10 questions which is divided into three domains of alcohol use: Hazardous alcohol use (In general score of 1 or more on questions 2 & 3 indicate consumption at Hazardous level), Dependence symptoms (In general points scored above 0 on questions 4,5and 6 imply presence of dependence symptoms), Harmful alcohol use (In general any points scored on questions 7, 8, 9 & 10 indicate alcohol related harm is already being experienced).According to overall score in the AUDIT scale the participants are grouped under four zones.

Zone I - Alcohol Education for participants scoring 0-7 points; Zone II – Simple Advice for participants scoring 8-15 points; Zone III – Simple advice + Brief counseling and continued monitoring for participants 16-19 points; Zone IV- Referral to specialist for diagnostic evaluation and treatment for participants scoring 20-40 points.

2.9.5 Psychosocial Impact

For this study “Psychosocial Impact” was taken as combination of depression, perception of own health status, social issues, psychological issues and legal issues with depression being the main component.

2.9.6 Becks Depression Inventory (BDI)

Depression was measured by a validated self rated depression scale (BDI) having 21 questions with scoring from 0-63. According to the total score obtained by the participant depression was grouped as: Scores: (1-10)-Normal; (11-16)-Mild Mood Disturbances; (17-20)-Borderline Clinical Depression; (21-30) - Moderate Depression; (31-40)-Severe Depression; (>40) - Extreme Depression.

Chapter 3

Results

The findings of the study are presented in this section. The general description of the study participants are presented first, analysis of the factors associated with alcohol use; psychosocial impact of alcohol use and correlates of alcohol use among migrant and non migrant communities are described under the two subsections of bivariate analysis and multiple logistic regression analysis.

3.1 Sample characteristics

A detailed depiction of the study has been given in this section. The study population characteristics are presented under the following heads: background characteristics, prevalence and patterns of alcohol use, correlates of alcohol use and psychosocial impact of alcohol use among the Migrant and Non Migrant communities.

3.1.1 Background characteristics of the study participants: The background characteristics of the study participants are explained in Table 3.1. The mean age of the participants among Migrant community was 47.44 ± 10.47 years and among the Non Migrant community was 38.50 ± 12.02 years. The age ranged from 18-64 years for the participants for both communities. A total number of 231 participants (57.75 percent) were in the age group of 18 - 45 years and 169 participants (42.25 percent) were in the age group of 46-64 years. Among both communities more than three fourth of the participants were married. The average monthly expenditure of the household among 205 participants (51.25 percent) was < 10,000 INR (Indian Rupees). About three fourth participants were employed and 97.25 percent of the participants were educated among both communities.

Table 3.1 Socio-demographic Characteristics of the Study Population (N=400)

Variables		Migrant * N (%)	Non-Migrant * N (%)	Total [#] N (%)
Current age (in years)	<35	28 (14.00)	83 (42.50)	113 (28.20)
	36-45	60 (30.00)	58 (29.00)	118 (29.50)
	>46	112(56.00)	57(28.50)	169(42.20)
Marital Status	Married	178(89.00)	134(67.00)	312(78.00)
	Others ¹	22(11.00)	66(33.00)	88(22.00)
Religion	Hindu	194(97.00)	176(88.00)	370(92.50)
	Muslim	2(1.00)	11(5.50)	13(3.25)
	Others ²	4(2.00)	13(6.50)	17(4.25)
Education	Educated	197(98.50)	192(96.00)	389(97.25)
	Uneducated	3(1.50)	8(4.00)	11(2.75)
Employment	Government	108(54.00)	43(21.50)	151(37.80)
	Self employed	48(24.00)	115(57.50)	163(40.80)
	Others ³	44(22.00)	42(21.00)	86(21.50)
Family Type	Nuclear	105(52.50)	132(66.00)	237(59.25)
	Joint	95(47.50)	68(34.00)	163(40.80)
Duration of Marriage ⁴ (in years)	< 20	71 (39.40)	81(59.10)	152(47.94)
	≥ 20	109(60.60)	165(52.06)	165(52.06)
Average Monthly Household Expenditure in INR	≤ 10000	78(39.00)	127(63.50)	205(51.25)
	>10000	122(61.00)	73(36.50)	195(48.75)

*Frequencies based on n=200; [#] Frequencies based on n=400; ¹ Unmarried, widowed, separated, divorced ; ² Christians, Sikhs, Buddhist ; ³ Students ,Retired, Unorganized labor; ⁴ Frequencies are for Ever married participants (n=317) INR : Indian Rupees

3.1.2 Prevalence and patterns of alcohol use: Prevalence of ever use of alcohol was found to be 50.50 percent out of which 102 participants (51.00 percent) were migrants and 100 participants (50.00 percent) were non migrants. The prevalence of current use of alcohol was found to be 44.00 percent and 49.50 percent in migrants and non migrants respectively which amounts to 46.80 percent in total.

Among the current users of alcohol within the migrant community, Alcohol Use Disorder Identification Test (AUDIT) revealed that 88 (100.00 percent), 22 (25.00 percent) and 54 (61.36 percent) were found to have hazardous, dependent and harmful use of alcohol respectively and among the non migrants it was 99(100.00 percent), 59(59.59 percent) and 72(72.72 percent) respectively.

AUDIT risk levels were measured for current users of alcohol. Out of the total current users of alcohol, 107 participants (57.20 percent) were in Zone I who needed education on alcohol and 48 participants (25.70 percent) were in Zone II who needed simple advice on alcohol. Only 15 participants (8.00 percent) were in Zone IV who needed Specialist consultation.

At the end of the interview, depending on the categorization of the zones in which the current users were categorized, the study participants were given health education, advice or referral by the principal investigator.

Main reason for migrant participants to use alcohol as disclosed by them was to pass time and get relaxed of their anxiety of migration. Table 3.2 and 3.3 describes in detail about the Prevalence and Alcohol Use Disorder Identification Test (AUDIT) Domains and Risk levels.

Table 3.2 Prevalence of alcohol use

Variables	Migrants *	Non-Migrants *	Total #
Current Users ¹	88(44.00)	99(49.50)	187(46.80)
Ever use of Alcohol	102(51.00)	100(50.00)	202(50.50)

*Frequencies based on n=200; # Frequencies based on n=400
¹ Current users of alcohol are those having drank alcoholic beverage within the past one month

Table 3.3 Alcohol Use Disorder Identification Test (AUDIT) domains and risk levels

Variables	Migrants *	Non-Migrants *	Total #
Domains of AUDIT Scale for Current users of alcohol			
Hazardous alcohol use	88(100.00)	99(100.00)	187(100.00)
Dependence symptoms	22(25.00)	59(59.59)	81(43.32)
Harmful alcohol use	54(61.36)	72(72.72)	126(67.37)
AUDIT Risk Levels			
ZONE I ²	64(72.70)	43(43.40)	107(57.20)
ZONE II ³	17(19.30)	31(31.30)	48(25.70)
ZONE III ⁴	4(4.50)	13(13.10)	17(9.10)
ZONE IV ⁵	3(3.40)	12(12.10)	15(8.00)
Total	88(100.00)	99(100.00)	187(100.00)

*Frequencies based on n=200; # Frequencies based on n=400

¹ Current users of alcohol are those having drank alcoholic beverage within the past one month; ² Zone I- Alcohol education (0-7); ³ Zone II-Simple advice (8-15); ⁴ Zone III-Simple advice+ Brief counseling and Continued monitoring (16-19); ⁵ Zone IV-Referral to Specialist for diagnostic evaluation and treatment (20-40)

3.1.3 Correlates of alcohol use: In Table 3.4, the findings about the correlates of alcohol use among the current users are shown. Among the current users of alcohol 30 participants (16.04 percent) received financial aid from the Government and all of them belong to migrant community. The starting age of consumption of alcohol among current

users of alcohol was ≤ 25 years in 73.70 percent and 44.30 percent in non migrants and migrants respectively. The average expenditure for alcohol was > 150 INR in 53.40 percent of migrants and 37.40 percent of non migrants. Of the current users of alcohol 26.30 percent of the non migrant and 9.10 percent of the migrants borrowed money for purchase of alcohol

Table 3.4 Correlates of Alcohol use among Current users of alcohol

Variables		Migrants ¹ n (%)	Non-migrants ² n (%)	Total ³ n (%)
Age at which started consuming alcohol	≤ 25 years	39(44.30)	73(73.70)	112(59.89)
	> 25 years	49(55.70)	26(26.30)	75(40.11)
Average Expenditure on alcohol	< 150 INR	41(46.60)	62(62.60)	103(55.10)
	>150 INR	47(53.40)	37(37.40)	84(44.90)
Alcohol affecting health and productivity		9(10.20)	34(34.30)	43(23.00)
Borrowing money		8(9.10)	26(26.30)	34(18.18)
Type of Alcohol used				
Whisky		59(67)	50(50.5)	109(58.20)
Rum		3(3.4)	2(2)	5(2.67)
Beer		17(19.3)	10(10.1)	27(14.43)
Local Brew		5(5.7)	22(22.2)	27(14.43)
Others ⁴		4(4.54)	15(15.15)	19(10.16)
Place of Drinking				
At home		60(68.2)	44(44.4)	104(55.60)
Others ⁵		28(31.80)	55(55.60)	83(44.40)
Experienced due to alcohol				
Lost income		4(4.5)	5(5)	9(4.81)
Needed Hospitalization		5(5.7)	18(18.2)	23(12.29)

Needed Doctor's visits	8(9.1)	19(19.2)	27(14.43)
Needed to pay for Crime related costs	1(1.1)	6(6.1)	7(3.74)
Been involved in Motor vehicle crashes	-	1(1)	1(0.25)
None of the above	70(79.5)	50(50.5)	120(64.17)

¹ Values are based on n=88; ² Values are based on n=99; ³ Values are based on n=187 ; ⁴ Vodka, Wine, No preferences; ⁵ Streets, Lonely places ,Bars, Pubs, Friends/Relatives place, Religious/Social gatherings

Whisky was consumed by 109 participants (58.20 percent) out of total 187 current users of alcohol and 104 participants (55.60 percent) migrants prefer to consume alcohol at home as they felt it was safe to consume alcohol at home to avoid any kind of mishap. Hospitalization and need to visit doctor was reported among 50 participants (26.73 percent) following the consumption of alcohol among the current users.

3.1.4 Psychosocial Determinants: The Table 3.5 depicts the psychosocial determinants for both migrant and non migrant communities and also the current users of alcohol. The perception about the health status was excellent and satisfactory in 145 participants (36.20 percent) and 210 participants (52.50 percent) respectively. The perception about health status was excellent and satisfactory among the current users of alcohol in 41 participants (21.92 percent) and 116 participants (62.00 percent) respectively. 85 participants (21.20 percent) stayed away from their homes and 46 participants (11.50 percent) were involved in frequent quarrels. More than half of the participants reported that they rarely missed any family/relations' social functions. Less than 10 percent of the participants reported that they were detained in the police station.

Table: 3.5 Psychosocial determinants among Migrants, Non migrants and Current users of alcohol in Migrants and Non Migrants.

Perception about Health	Migrant[*] n (%)	Non Migrant[*] n (%)	Total[#] n (%)	Migrant¹ n (%)	Non Migrant² n (%)	Total³ n (%)
Excellent / good	58(29.0)	87(43.5)	145(36.2)	18(20.5)	23(23.5)	41(21.9)
Satisfactory	116(58.0)	94(47.0)	210(52.5)	56(63.6)	60(60.0)	116(62.0)
Can't say	26(13.0)	19(9.5)	45(11.2)	14(15.9)	16(16.2)	30(16.1)
Social Issues						
Stayed away from home	41(20.5)	44(22.0)	85(21.2)	22(25.0)	24(24.3)	46(24.7)
Ran away from home	8(4.0)	11(5.5)	19(4.8)	4(4.5)	8(8.1)	12(6.4)
Involved in frequent quarrels/brawls	21(10.5)	25(12.5)	46(11.5)	17(19.3)	21(21.2)	38(20.3)
Got beaten	10(5.0)	16(8.0)	26(6.5)	5(5.7)	13(13.1)	18(9.6)
Missed family/relations social functions						
All the time	6(3.0)	16(8.0)	22(5.5)	3(3.4)	11(11.1)	14(7.5)
Frequently	11(5.5)	33(16.5)	44(11.0)	6(6.8)	14(14.1)	20(10.7)
Occasionally	53(26.5)	40(20.0)	93(23.2)	13(14.8)	27(27.3)	40(21.4)
Rarely	130(65.0)	111(55.5)	241(60.2)	66(75.0)	47(47.5)	113(60.4)
Legal						
Any police complaint filed against you	3(1.5)	16(8.0)	19(4.8)	2(2.3)	13(13.1)	15(8.0)
Paid any penalty	5(2.5)	13(6.5)	18(4.5)	2(2.3)	12(12.1)	14(7.5)
Detained in police station	22(11.0)	8(11.0)	30(7.5)	5(5.7)	18(18.2)	23(12.3)
*Frequencies based on n=200; [#] Frequencies based on n=400; ¹ Frequencies are based on n=88; ² Frequencies are based on n=99; ³ Frequencies are based on n=187						

Table 3.6 depicts the comparison of psychological characteristics among migrant and non-migrant communities using self rated Likert scale, ranging from 1 to 5. The mean

scores were considered for analysis, higher the mean score higher the psychological satisfaction or dissatisfaction. The mean scores for stress & strain and feeling sad for unnecessary things were higher among the Migrants. The mean scores for happiness with their colleagues were higher among migrants. The non-migrants had higher mean scores for being happy with their jobs and with their married life.

Table: 3.6 Psychological determinants among Migrants and Non Migrants (Likert Scale)

Characteristics	Migrant [*]		Non-migrant [*]		Total [#]	
	N	Mean ± SD	N	Mean ± SD	N	Mean ± SD
I am happy with my job	186	4.15±1.05	185	4.25±0.95	371	4.20±1.00
I am happy with my colleagues	186	3.92±1.02	185	3.81±0.92	371	3.87±0.97
I am happy with my married life	179	4.21±0.94	133	4.36±0.85	312	4.27±0.90
I have been under stress/ strain	200	2.79±1.25	200	2.41±1.11	400	2.60±1.20
I am sad for unnecessary things	200	2.62±1.26	200	2.21±1.20	400	2.42±1.25

¹ Frequencies are based on n=88; ² Frequencies are based on n=99; ³ Frequencies are based on n=187 ; SD- Standard Deviation

Table: 3.7 Levels of Depression among Migrants, Non Migrants and current alcohol users of Migrants and Non-Migrants

Variables	Migrant *	Non Migrant *	Total #	Migrant₁	Non Migrant₂	Total³
Normal (1-10)	121(60.5)	92(46.0)	213(53.2)	47(53.4)	42(42.4)	89(47.6)
Mild Mood Disturbance (11-16)	44(22.0)	35(17.5)	79(19.8)	26(29.5)	19(19.2)	45(24.1)
Borderline Depression (17-20)	13(6.5)	17(8.5)	30(7.5)	6(6.8)	9(9.1)	15(8.0)
Moderate Depression (21-30)	15(7.5)	32(16.0)	47(11.8)	6(6.8)	13(13.1)	19(10.2)
Severe Depression (31-40)	5(2.5)	18(9.0)	23(5.8)	3(3.4)	12(12.1)	15(8.0)
Extreme Depression (>40)	2(1.0)	6(3.0)	8(2.0)	-	4(4.0)	4(2.1)
*Frequencies based on n=200; # Frequencies based on n=400; ¹ Frequencies are based on n=88; ² Frequencies are based on n=99; ³ Frequencies are based on n=187						

3.1.5 Becks Depression Inventory (BDI): BDI was used to measure the level of depression among migrants and non migrants and current users of alcohol. 213 participants (53.2 percent) were normal and 79 participants (19.8 percent) were having

mild mood disturbances. Borderline to moderate depression was found among 77 participants (19.3percent) and severe to extreme depression was found among 31 participants(7.8 percent).Current users of alcohol had 24.1percent had mild mood disturbances and 18.2 percent had borderline to moderate depression, whereas only 10.1 percent had severe to extreme depression. At the end of the interview, depending on the levels of depression in which the study population were categorized, the study participants were given advice or referral by the principal investigator. Table 3.7 depicts the findings of the BDI in detail.

3.2 Results of Bivariate Analysis

Student's t test, simple Chi square test, Kurskal-Wallis Test (Non Parametric test) and binary logistic regression analysis was performed to examine the possible association of predictor variables with outcome variables. The outcome variables considered were current alcohol use for both migrant and non migrant men, psychosocial impact of alcohol use among both groups. Tables: 3.8, 3.9, 3.10.a, 3.10.b, 3.11.a, 3.11.b, 3.11.c, 3.12, 3.13, and 3.14 are given below for bivariate and multivariate analysis to find out the association between predictor variables and outcome variables.

The Hazardous, Dependence symptoms and Harmful alcohol use were compared across the Migrant and Non migrant subjects who were current users of alcohol. The mean scores for the hazardous, dependence and harmful use were higher for Non migrants than migrants and these differences were statistically significant (p value : < 0.001) .The mean AUDIT Score was also found to be higher among the Non migrants and was statistically significant (p value : < 0.001). Table 3.8 below describes in detail about the comparison and statistical significance

Table: 3.8 Patterns of Current Use of alcohol by Migrants and Non Migrants

Variables	Migrants (n=88)	Non-migrants (n=99)	p-value #
	Mean $\pm$ SD ¹	Mean $\pm$ SD ¹	
Hazardous alcohol use	2 $\pm$ 2.334	3.454 $\pm$ 3.420	< 0.001
Dependence symptoms	0.897 $\pm$ 1.994	2.323 $\pm$ 2.867	< 0.001
Harmful alcohol use	2.88 $\pm$ 1.917	4.69 $\pm$ 2.613	< 0.001
AUDIT Score	5.77 $\pm$ 5.062	10.46 $\pm$ 7.371	< 0.001
# p value from t- test ;1- Standard Deviation			

The Kurskal-Wallis test was done to look for the statistical significance of current use of alcohol and Depression for which Becks Depression Inventory (BDI) scores a validated self rated depression scale was used in the interview schedule.

Table 3.9 Non-Parametric test for Becks Depression Inventory (BDI) among Migrants, Non-migrants and Current users of alcohol (Kurskal-Wallis Test)

Groups	Mean Rank of BDI scores	Chi square value	p-value
<u>Migrant</u>			
Current Users (n=88)	106.07	1.869	0.169
Non users (n=112)	96.12		
<u>Non-migrant</u>			
Current Users (n=99)	104.74	1.181	0.277
Nonusers (n=101)	96.34		
<u>Current users of alcohol</u>			
Migrant (n=88)	78.27	6.940	0.008
Non-migrant (n=99)	107.98		

The mean rank of the BDI scores were compared with current users and non users among migrant and non migrant groups separately, it was not found statistically significant but

for the difference between current user groups among migrants and non migrants was significant statistically. The mean rank was higher in Non migrant men among current users which signified that they are more depressed than migrants, and it is not due to alcohol use as there is no statistical significance when tested within Non migrants and current users among the same.

Table 3.10.a Predictors of alcohol use by Migrants: Results of Bivariate Analysis (n=200)

Variables	Currents Users Of Alcohol n (%)	Unadjusted Odds Ratio With 95% CI ¹	p-value*
Marital status \$			
Unmarried (n=22)	3(13.6)	1	0.002
Married (n=178)	85(47.7)	5.780(1.654,20.258)	
Work status			
Government employee (n=108)	55(50.9)	2.767(1.290,5.936)	0.008
Self Employed (n=48)	21(43.7)	2.074(0.865,4.975)	0.100
Others (n=44)	12(27.2)	1	
Family type			
Nuclear (n=105)	38(36.1)	1	0.019
Joint (n=95)	50(52.6)	1.959(1.112,3.451)	
Average Monthly Household Expenditure (in INR)			
≤ 10000 (n=78)	44(56.4)	2.294(1.284,4.099)	0.005
>10000 (n=122)	44(36.1)	1	
Variables not found significant: Age, Education, Duration of marriage, and Duration since migrated, Financial aid, Anyone in the family drink. INR-Indian Rupees;1 Confidence Interval,* p-value from chi square test \$-Fischer exact p value			

Table 3.10.a above describes in detail about the predictors found statistically significant with current use of alcohol among migrants.

Among the predictors of Psychosocial impact only three variables were found to statistically significant with current use of alcohol among Migrants. These were Perception about own health, Involvement in frequent quarrels / brawls and having missed any family /relatives function. The significant association is shown in Table 3.10.b below.

Table 3.10.b Predictors of Psychosocial impact among Migrants: Results of Bivariate Analysis (n=200)

Variables	Currents Users Of Alcohol n (%)	Unadjusted Odds Ratio With 95% CI¹	p-value *
a. Perception about own Health status			
Excellent (n=58)	18(31.0)	1	
Satisfactory (n=116)	56(48.2)	2.074(1.067,4.033)	0.030
Can't say (n=26)	14(53.8)	2.593(1.002,6.709)	0.047
b. Involved in Frequent quarrels/brawls (Social issues)			
No (n=180)	71(39.4)	1	
Yes (n=20)	17(85.0)	8.700(2.460,30.769)	<0.001
Missed family/relations' social functions \$			
Rarely (n=130)	66(50.76)	1	
Occasionally (n=53)	13(24.52)	3.173(1.554,6.480)	0.002
Frequently (n=17)	9(52.90)	0.917(0.333,2.523)	0.866
Variables not found significant: Legal issues, Psychological determinants . * p-value from chi square test, 1 Confidence Interval \$-Fischer exact p value			

Table 3.11.a Predictors of alcohol use by Non-Migrants: Results of Bivariate Analysis (n=200)

Variables	Currents Users Of Alcohol n (%)	Unadjusted Odds Ratio With 95% CI ¹	p- value*
Age Groups (years)			
≤ 35 (n=85)	31(36.4)	1	
36-45 (n=58)	32(55.1)	2.145(1.085,4.237)	0.027
>46 (n=57)	36(63.1)	2.985(1.488,5.988)	0.002
Duration of Marriage (years) (only for ever married n=137)			
≤ 20 (n=93)	44(47.3)	1	
> 20 (n=44)	29(65.9)	2.155(1.022,4.524)	0.042
Work status			
Government employee (n=43)	22(51.2)	1.886(0.790,4.498)	0.151
Self Employed (n=115)	62(54.0)	2.106(1.015,4.369)	0.043
Others (n=42)	15(35.7)	1	
Variables not found significant: Education , Family type, Marital status, Work status, Average monthly house hold expenditure, Financial aid, anyone in the family drink.1 Confidence Interval,* p-value from chi square test			

The current use of alcohol among non-migrants was significantly associated with increasing age, self employed men and with longer duration of marriage (>20 years). Table 3.11.a shows in detail about the predictors of current use of alcohol among Non migrants.

Table 3.11.b Predictors of Psychosocial impact among Non-Migrants: Results of bivariate analysis (n=200)

Variables	Currents Users Of Alcohol n (%)	Unadjusted Odds Ratio With 95% CI ¹	p- value*
Perception about own health status \$			
Excellent (n=87)	23(26.4)	1	
Satisfactory(n=94)	60(63.8)	4.910(2.597,9.259)	<0.001
Can't say (n=19)	16(84.2)	14.920(3.950,55.550)	<0.001

Involved in Frequent Quarrels/brawls \$			
No (n=175)	78(44.5)	1	<0.001
Yes (n=25)	21(84.0)	6.535(2.150,20.000)	
Frequently Got beaten			
No (n=184)	86(46.7)	1	0.009
Yes (n=16)	13(81.2)	4.938(1.362,17.909)	
Missed family/relations' social functions			
Rarely (n=111)	47(42.3)	1	0.006
Occasionally (n=40)	27(67.5)	2.828(1.321,6.055)	
Frequently (n=33)	14(42.4)	1.003(0.457,2.203)	
All the time (n=16)	11(68.7)	2.996(0.975,9.201)	
Legal issues			
Any Police complaint filed against you \$			
No (n=184)	86(46.7)	1	0.009
Yes (n=16)	13(81.2)	4.938(1.362,17.857)	
Any Penalty paid by you \$			
No (n=187)	87(46.5)	1	<0.001
Yes (n=13)	12(92.3)	13.793(1.757,108.235)	
Were you detained in police station \$			
No (n=178)	81(45.5)	1	<0.001
Yes (n=22)	18(81.8)	5.389 (1.754,16.563)	
1 Confidence Interval,* p-value from chi square test, \$ Fishers Exact p value			

Table: 3.11.c Predictors of Psychological impact for Non Migrants: Results of Bivariate Analysis (n=200)

Variables	Current users of alcohol	Mean $\pm$ SD ³	p-value#
Happy with my job ¹	Yes	4.05 $\pm$ 1.061	0.024
	No	4.38 $\pm$ 0.886	
Happy with my colleagues ¹	Yes	3.62 $\pm$ 0.974	0.017
	No	3.94 $\pm$ 0.864	
Happy with my married life ²	Yes	4.20 $\pm$ 0.951	0.019
	No	4.55 $\pm$ 0.675	
Sad for unnecessary things	Yes	2.64 $\pm$ 1.359	<0.001
	No	1.79 $\pm$ 0.840	
¹ :n=165(For men in job), ² :n=137(For men married) ;# p value from t- test ; ³ Standard Deviation			

Table 3.11.b shows, the legal issues like Any Police complaint filed against you, Any Penalty paid by you, were you detained in police station were found statistically significant for non-migrants when compared between alcohol users and non users. Table 3.11.c shows that in the predictors for psychological impact in the Non migrant group that was also found to be statistically significant with current use of alcohol.

Table: 3.12 Correlates of current use of alcohol for migrants (n=102)

Variables	Currents Users Of Alcohol n (%)	Unadjusted Odds Ratio With 95% CI ¹	P-value *
Average Expenditure on alcohol on the day of consumption(in INR) ** \$			
≤ 150 (n=42)	41(97.6)	11.340(1.422,90.468)	0.007
>150 (n=60)	47(78.4)	1	
Place of Drinking **			
Home (n=64)	60(93.7)	5.357(1.545,18.573)	0.007
Others (n=38)	28(73.6)	1	
Variables not found significant: Age of start of consuming alcohol, Borrow money for alcohol Education.1 Confidence Interval,* p-value from chi square test \$-Fischer exact p value			

People who were consuming alcohol at home were 5.357 times more likely to be current users than who were drinking at other places (Bars, Pubs, Restaurants, Lonely places). When the Average expenditure on alcohol on the day of consumption was ≤ 150 INR there was 11.34 times more likely to be current users of alcohol than who spend more than 150 INR. There was no significant association for non-migrants for the same correlates.

3.3 Results of Multiple Logistic Regression

Four variables Marital status, Work Status, Average Monthly House Hold expenditure, and Family type were found to be significantly associated with current use of alcohol among Migrant men.

Table: 3.13 Predictors of current use of alcohol by Migrants: Results of Multiple Logistic Regression

Variables	Current users of alcohol N (%)	Adjusted Odds Ratio	95 % CI ¹	p-value
Marital status				
Unmarried	3(13)	1		
Married	85(47)	6.135	(1.638,22.975)	0.007
Work status				
Others	12(27)	1		
Government employee	55(50)	3.781	(1.583,9.027)	<0.005
Self Employed	21(43)	2.044	(0.793,5.269)	0.139
Average Monthly Household Expenditure (INR)*				
>10000	44(36)	1		
≤ 10000	44(56)	3.676	(1.847,7.316)	<0.001
Family type				
Nuclear	38(36)	1		
Joint	50(52)	2.116	(1.142,3.922)	0.017

Other variables considered in this model and not found significant include: Family type and Duration of marriage; 1 Confidence Interval * Indian Rupees

Self employed men were 2.044 and Government employed men were 3.781 times more likely to consume alcohol keeping others (students, retired men, unorganized labor) as reference.

Migrant men having monthly house hold expenditure ≤ 10000 were 3.76 times more likely to be current users of alcohol than those having monthly House hold expenditure >10000 INR. Married men were 6.135 times more likely to be current users of alcohol than the unmarried men among unmarried men. Men in joint families were 2.116 times more likely to be current users of alcohol than migrant men living in nuclear families.

Table: 3.14 Predictors of current use of alcohol by Non Migrants: Results of Multiple Logistic Regression

Variables	Current users of alcohol N (%)	Adjusted Odds Ratio	95 % CI ¹	p-value
Age Groups (years)				
≤ 35	31(36)	1		
36-45	32(55)	2.144	(1.086,4.233)	0.028
>46	36(63)	2.986	(1.489,5.991)	0.002

Other variables considered in this model and not found significant include Duration of marriage and work status; 1 Confidence Interval

Only one variable Age groups was found to be significantly associated with current use of alcohol among Non migrants showing that Non migrant men in the age group of 36-45 years were 2.144 times more likely to be current users than men ≤ 35 years of age and Non migrant men in > 46 years age group were 2.986 times more likely to be current users in comparison to ≤ 35 years age group.

Chapter 4

Discussion and Conclusion

4.1 Discussion

This study is first of its kind to look into the prevalence, patterns, psychosocial impact and correlates of alcohol use among Kashmiri Migrant men in comparison to local resident men (Non migrant) in Jammu in the Indian state of Jammu and Kashmir (J & K).

The prevalence of current use of alcohol was 46.80 percent (44 percent in migrants and 49.5 percent in non-migrants), and was very high compared to NFHS-3³⁵ which reported prevalence of 12.5 percent for the age group of 15 – 54 years for men of J & k. The reported prevalence of the present study was higher as compared to several other studies from Haryana and Mumbai.^{54, 55, 56}

The prevalence of current use of alcohol was similar to the NFHS-3 for the neighboring States like Punjab (43.4 percent) and Delhi (33.1 percent) respectively.³⁵ The prevalence of current use of alcohol for men suffering from Type 2 Diabetes aged 40 years in Jammu was 63 percent which was higher than the findings of the present study.⁵⁷ Several other studies from Argentina and Kenya conducted by WHO in the year 2005 revealed prevalence of current use of alcohol as high as 84.5 and as low as 34.4 percent respectively among men aged 15-64 years.^{12,58}

Migrant populations in North Uganda and United States showed higher prevalence of current use of alcohol^{59, 24} whereas migrants in Nepal had prevalence of current use of alcohol lower than the present study.⁶⁰ High prevalence of alcohol use has been observed among migrants due to some internal turmoil. The high prevalence of alcohol use among the migrants in present study could be because of the easy availability, acculturation stress, socio-economic stress, feeling of hopelessness, loss of identity, to pass time as was found in several studies conducted among migrants.¹⁶⁻¹⁸

It would have been more interesting to compare the prevalence of current use of alcohol with Kashmiri men who did not migrate from Kashmir which would have been much lesser than men who migrated as sale of alcohol in Kashmir is negligible which was not within the scope of the study.

The study had used AUDIT scale to measure the patterns of alcohol use among migrants and non-migrants. It was found that 100, 25 and 61 percent among migrant current users and 100, 59 and 72 percent among non-migrant current users have hazardous, dependent and harmful use of alcohol respectively. This finding was higher than many other studies conducted in various locations of India and the world.⁶¹⁻⁶⁵

The high prevalence of hazardous use which includes the harmful alcohol use is alarming both in the migrant as well as the non-migrant communities. This reinforces the problem of alcohol use among the residents of Jammu and Kashmir. Migrants indulging in hazardous alcohol use could be due to their consuming alcohol as a coping strategy for their tensions or it could be explained by the change in their lifestyles over the years of migration. The Kashmiri migrants have adapted and adopted the lifestyles and cultural beliefs of the local residents in addition to the traditional Kashmiri lifestyle. So, alcohol consumption which was taboo before has been slowly recognized as present in the Kashmiri migrant Community now.

This study revealed that depression among migrants was not high as compared to non migrants. In contrary, severe and extreme depression were 9, 3 percent respectively for non migrants and 2.5, 1 percent respectively for migrants. Mild mood depression was more in Migrants as compared to non migrants. The study findings of migrants having lesser depression than the non migrants was similar with one of the study conducted in Canada, as depression was indirectly related to the length of residence at the new

place.^{66,67} This finding is consistent with this migrant group as 95 percent migrants have now stayed for > 23 years at their new place of residence in Jammu and have lesser depression. Alcohol and depression were not related to each other in the present study which is different from other studies.²⁷⁻²⁹

The alcohol drinking was related social issues in a study conducted in Netherland which is true for this study also in case of non-migrants.⁶⁸ A study conducted in prison setting in Scotland revealed link between alcohol and their first offence. This was very similar to the present study finding among non-migrant current users of alcohol, where the legal issues was found to be statistically significant with alcohol use.⁶⁹

In the present study, the current users of alcohol among the migrants were less satisfied with their health status as compared to non-migrants. Dislodgement from their homes, adjustments to their new environment and struggles to cope up could have led to their alcohol consumption. Thus alcohol consumption could have led to perceived unsatisfactory health status, a manifestation of their psychological ill health. This finding was contradicting to a study from Bangalore conducted to assess the same.³²

The migrants rarely missed family/relations social functions as compared to non-migrants which could be a reflection of the social setting and the cultural upbringing of the migrant community where a lot of importance is placed in religious and social functions, both in terms of conducting and celebrating the religious functions as well as attending ones organized by family and relations.

More non-migrants were involved in quarrels/brawls frequently as compared to the migrants, both in the total population as well as the current users of alcohol. This could again be a reflection of the fact that the culture and traditions of the migrants play an important role in their daily life.

In the present study, mean scores for stress & strain and feeling sad for unnecessary things were higher among migrants as compared to non-migrants. This could be due to the mental, physical and emotional outcome of migration. The mean scores for happiness with their colleagues were higher among migrants. The non-migrants had higher mean scores for being happy with their jobs and with their married life. Though the migrants have been trying to cope with their new homes and working environment, they still have problems with adjustment and this could manifest in terms of their feeling stressed out or feeling sad and being less happy with their jobs as compared to non-migrants which were similar to several other studies.^{17, 27, 32}

As compared to the migrants, non-migrants had more police complaints filed against them. Even the proportion of respondents who paid any penalty or were detained in police station was higher among the non-migrants which were different from a study conducted in Bangalore. This higher incidence of legal implications in the present study population in comparison to the Bangalore study also implies the possible increase in alcohol related crimes and violence in present study area.³²

In the present study, older age, lower educational status, marital status, employment status, family type and average household expenditure were associated with current use of alcohol among both migrants and non-migrants. This association was found to be similar to various other studies.^{44, 45, 60} In the present study, 59.89 percent of the respondents started consuming alcohol before the age of 25 years which is similar to a South Indian study.⁵⁰

In the present study, more of the current users among migrants spent less on alcohol on the day of consumption which was similar to a Kenyan study.¹² This shows that alcohol which was being used mainly for fun and relaxation or as an escape from

their day to day life might be taking a significant portion of an individual's resources from basic necessities such as food, savings, health and children's education.

The present study finding that migrant men preferred to drink alcohol at home was similar to other studies.^{58, 24} Among the current users of alcohol in the present study, the migrants preferred to drink alcohol at home as compared to the local residents who preferred to drink elsewhere like bars, pubs, friend's place, parties, streets. This could be because in the Kashmiri culture, alcohol is still a taboo and a person who is consuming alcohol wouldn't like others to find out about his habit. His home might be giving him the sense of his alcohol consumption kept a secret.

The commonest type of alcohol preferred by the participants in present study was whisky, both by the migrants (54 percent) as well as the non-migrants (46 percent), followed by beer (14 percent) and local brew (14 percent). The preferences could be due to the easy and widespread availability of these liquor than locally brewed ones which is comparable to other studies.^{12, 24, 70}

In the present study predictors of current use of alcohol among migrants were Marital Status, Work Status, Average Monthly House Hold Expenditure and Family type. This is on expected lines among the migrant current users of alcohol. Work status showing migrant men employed in Government (54 percent) use more alcohol is a finding which is true for the community which feel secure and safe only when they are in Government employment. In the migrants men consume alcohol more when in joint family is also favoring the fact that they consume more alcohol when at home which may be due to company at home or they might be feeling safe to drink at home which was similar to many other studies.^{44, 45, 60}

Age was the only predictor in the logistic regression analysis which was found to be associated with non-migrants alcohol use. The fact that with increase in age, alcohol use also increases has been justified by many studies.^{32, 44, 45, 58}

4.2 Conclusion

Prevalence of alcohol use among non migrants was higher compared to migrants. This could have been better if we could compare the prevalence of alcohol use among those who migrated and those who did not migrate. In that case the prevalence would have been too high which is still too high for a community who had witnessed alcohol sale to almost negligible levels at Kashmir and still is the same there.

Patterns of alcohol use in both population was found to be high with all three domains of AUDIT (Hazardous, Harmful alcohol use and Dependence Symptoms) being high for Non-Migrants in comparison to Migrants. This is a matter of great concern to all and it is alarming for the state of J & K which needs immediate redressal. Men should be educated through IEC activities and availability of alcohol should be restricted.

There was no statistically significant association found between alcohol use and depression for both Migrant and Non migrant men. Depression was very less among migrants as compared to non migrants may be due to the healthy effect of migration, but still proper research is advocated to verify the reasons for non migrants being more depressed.

The correlates found statistically significant with alcohol use among migrants were average expenditure on alcohol and place of drinking.

Measures to reduce alcohol use are recommended for both populations through targeted interventions for men aged 36 years and above, government employees, married men and men in joint families.

4.3 Strengths

1. This study is first of its kind to look into the prevalence, patterns, psychosocial impact and correlates of alcohol use among Kashmiri Migrant men in comparison to local resident men (Non migrant) in Jammu in the Indian state of Jammu and Kashmir.
2. Data was collected by single investigator thus eliminating the chance inter observer bias.

4.4 Limitations

1. The study was limited to alcohol use among migrants and non migrants settled in the same settings (clusters) thus the findings may not be generalized to all men 18-64 years of age in Jammu.
2. As it was a self reported cross sectional survey the predictors reported in the study need to be taken with caution.
3. Alcohol use among migrants is stigmatized so there is a chance of under reporting of alcohol use by them.

References:

1. World Health Organization. Global Health Risks: Mortality and burden of disease attributable to selected major risk factors. Geneva: WHO; 2009.
2. World Health Organization. Global Strategy to Reduce Harmful use of Alcohol. Geneva: WHO; 2010.
3. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. *The Lancet* 2009; 373:2223–33.
4. World Health Organization. Global status report on alcohol. Department of Mental Health and Substance Abuse. Geneva: WHO; 2004.
5. Mohindra KS, Narayana D, Anushreedha SS, Haddad S. Alcohol use and its consequences in South India: views from a marginalised tribal population. *Drug Alcohol Depend* 2011; 117:70–3.
6. Klingemann H. Alcohol and its social consequences: The forgotten dimension [Internet]. WHO, Regional Office for Europe; 2001 [cited 2013 Apr 23]. Available from: <http://www.ias.org.uk/btg/policyeu/pdfs/2001-klingemann.pdf>.
7. World Refugee Survey. Washington D.C: 2002. United States Committee for refugees. Available from: www.refugee.org [accessed on 2013Feb 28]
8. Ezard N: Substance use among populations displaced by conflict: a literature review. *Disasters* 2012; 36: 533-57.
9. World Health Organization. Global status report on alcohol and health. Management of Substance Abuse Team. Geneva: WHO; 2011.
10. Rehm J and Patra J. Resources for the prevention and treatment of substance use disorders. *ATLAS on substance use*, World Health Organization. Geneva: WHO; 2010.

11. Lim SS, Vos T, Flaxman AD, Danaei G, Shibuya K, Adair-Rohani H et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 2012; 380: 2224–60.
12. Alcohol use in central province of Kenya. A baseline survey on magnitude causes and effects from the perspective of community members and individual users. Policy Brief No 4/2011. Dec 2010.
13. Randiwela P, Fernando S, Karunarathne M, Arnold A, Weerakoon N and Perera D. Effects of Alcohol usage in Wigton Estate – Sri Lanka: Internal customer care Edit. Oxford Business & Economics Conference, Oxford University UK; 2010.
14. Martin J, Barry J, Goggin D, Morgan K, Ward M, O’Suilleabhain T. Alcohol-Attributable Mortality in Ireland. *Alcohol and Alcoholism* 2010; 45:379–86.
15. Marc A Schuckit. Alcohol-use disorders. *Lancet* 2009; 373: 492–501.
16. Weaver H, Roberts B: Drinking and displacement: a systematic review of the influence of forced displacement on harmful alcohol use. *Subst Use Misuse* 2010; 45:2340-55.
17. Maksimovic M, Backovic D, Maksimovic J, Kocijancic R. Socio-economic status and psychosocial functioning of internally displaced adolescents and adolescents from Belgrade. *Int J Public Health* 2011; 56: 305–10.
18. Ezard N, Thiptharakun S, Nosten F, Rhodes T, McGready R. Risky alcohol use among reproductive-age men, not women, in Mae La refugee camp, Thailand, 2009. *Conflict and Health*. 2012; 6:1-9.
<http://www.conflictandhealth.com/content/pdf/1752-1505-6-7.pdf> (accessed on April 26, 2013)

19. Araya M, Chotai J, Komproe IH, de Jong JTVM. Effect of trauma on quality of life as mediated by mental distress and moderated by coping and social support among postconflict displaced Ethiopians. *Qual Life Res* 2007; 16:915–27.
20. Kozaric-Kovacic D, Ljubin T, Grappe M. Comorbidity of Post Traumatic Stress Disorder and Alcohol Dependence in Displaced Persons. *Croatian Medical Journal* 2000 41:173-178.
21. De Jong K, van der Kam S, Ford N, Hargreaves S, van Oosten R, Cunningham D, et al. The trauma of ongoing conflict and displacement in Chechnya: quantitative assessment of living conditions, and psychosocial and general health status among war displaced in Chechnya and Ingushetia. *Conflict and Health*. 2007; 1:1-13. <http://www.conflictandhealth.com/content/pdf/1752-1505-1-4.pdf> (accessed on April 26, 2013)
22. Streel E, Schilperoord M. Perspectives on alcohol and substance abuse in refugee settings: lessons from the field. *Intervention* 2010; 8:268–75.
23. Ezard N, Oppenheimer E, Burton A, Schilperoord M, Macdonald D, Adelekan M, et al. Six rapid assessments of alcohol and other substance use in populations displaced by conflict. *Conflict and Health* 2011; 5:1-15. <http://www.conflictandhealth.com/content/pdf/1752-1505-5-1.pdf> (accessed on April 27, 2013)
24. Lee JP, Battle RS, Antin TMJ, Lipton R. Alcohol Use among Two Generations of Southeast Asians in the United States. *J Ethn Subst Abuse* 2008;7: 357–75.
25. Lindert J, Ehrenstein OS von, Priebe S, Mielck A, Brähler E. Depression and anxiety in labor migrants and refugees – A systematic review and meta-analysis. *Social Science & Medicine* 2009; 69:246–57.

26. Patel V. Alcohol Use and Mental Health in Developing Countries. *Ann Epidemiology* 2007; 17: 87–92
27. Grant BF, Harford TC. Co morbidity between DSM-IV alcohol use disorders and major depression: results of a national survey. *Drug Alcohol Depend* 1995; 39:197–206.
28. Lipton RI. The effect of moderate alcohol use on the relationship between stress and depression. *Am J Public Health* 1994; 84:1913–7.
29. Peirce RS, Frone MR, Russell M, Cooper ML, Mudar P. A longitudinal model of social contact, social support, depression, and alcohol use. *Health Psychology* 2000; 19:28–38.
30. Vlahov D. Increased Use of Cigarettes, Alcohol, and Marijuana among Manhattan, New York, Residents after the September 11th Terrorist Attacks. *American Journal of Epidemiology* 2002; 155:988–96.
31. Gururaj G, Benegal V, Girish N, Kavita R. Alcohol use and implications for public health: Patterns of use in four communities. *Indian Journal of Community Medicine* 2010; 35:238-44.
32. Gururaj G, Pratima Murthy, Girish N and Benegal V. Alcohol related harm: Implications for public health and policy in India, Publication No. 73, NIMHANS, Bangalore, India, 2011.
33. Murray CJ, Lopez AD. Global mortality, disability, and the contribution of risk factors: Global Burden of Disease Study. *Lancet* 1997; 349:1436–42.
34. Das, SK, Balakrishnan, V, Vasudevan, DM. Alcohol: its health and social impact in India. *Natl Med J India* 2006; 19: 94-9.

35. International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3), 2005-06, India: Key Findings. Mumbai: IIPS NFHS, 2007.
36. Srivastava A, H. Pal, S.N. Dwivedi, A. Pandey, J.N. Pande. National Household Survey of Drug and Alcohol Abuse in India (NHSDAA). New Delhi: Ministry of Social Justice and Empowerment, Government of India and UN Office for Drug and Crime, Regional Office of South Asia, 2004.
37. Bennett LA, Campillo C, Chandrashekar CR, Gureje O. Alcoholic beverage consumption in India, Mexico, and Nigeria: A cross-cultural comparison. *Alcohol Health Res World* 1998; 22:243–52.
38. Ebrahim S, Kinra S, Bowen L, Andersen E, Ben-Shlomo Y, et al. The Effect of Rural-to-Urban Migration on Obesity and Diabetes in India: A Cross-Sectional Study. *PLoS Med* 2010; 7: 1-12.
<http://www.plosmedicine.org/article/fetchObject.action?uri=infopercent3Adoipercent2F10.1371percent2Fjournal.pmed.1000268&representation=PDF> (accessed on April 20 2013)
39. Samuels F, Niño-Zarazúa M, Wagle S, Sultana T and Sultana MM. Vulnerabilities of Movement Cross border mobility between India, Nepal and Bangladesh. Overseas Development Institute, Background Note , Nov 2011.
40. Suresh BM, Girimaji SC, Benegal V, Tandon S, Uday Kumar GS, Hamza A, Jangam K and Nagaraja D. A comparative study of psychiatric morbidity among the displaced and the non-displaced population in Andaman and Nicobar islands after Tsunami. *Prehosp Disaster Med* 2008; 23:29-34.

41. Chand P and Chaturvedi SK. Distressing behaviors of alcohol dependence patients: A study from India Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore 560029, India.
42. Syed Amin. Life in conflict: Characteristics of Depression in Kashmir. *Int J Health Sci* 2009 ; 3: 213–223
43. Thappa J, Shah H, Hussain A, Chowhan A, Kaur H, Bharti M, et al. Psychiatric morbidity in adult Kashmiri migrants living in a migrant camp at Jammu. *Indian Journal of Psychiatry* 2010; 52:154-58.
44. Reisdorfer E, Büchele F, Pires ROM, Boing AF. Prevalence and associated factors with alcohol use disorders among adults: a population-based study in southern Brazil. *Rev Bras Epidemiol* 2012; 15:582–94.
45. Pengpid S, Peltzer K, Van der Heever H. Prevalence of alcohol use and associated factors in urban hospital outpatients in South Africa. *Int J Environ Res Public Health* 2011; 8:2629–39.
46. Peltzer K, Davids A, Njuho P. Alcohol use and problem drinking in South Africa: findings from a national population-based survey. *Afr J Psychiatry* 2011; 14:30–7.
47. Pillai A, Nayak MB, Greenfield TK, Bond JC, Nadkarni A, Patel V. Patterns of alcohol use, their correlates, and impact in male drinkers: a population-based survey from Goa, India. *Soc Psychiatry Psychiatr Epidemiol* 2012 ; 48: 275–82.
48. Marsden J, Boys A, Farrell M, Stillwell G, Hutchings K, Hillebrand J, et al. Personal and social correlates of alcohol consumption among mid-adolescents. *British Journal of Developmental Psychology* 2005; 23:427–50.
49. Mooney DK, Fromme K, Kivlahan DR, Marlatt GA. Correlates of alcohol consumption: sex, age, and expectancies relate differentially to quantity and frequency. *Addict Behav* 1987; 12:235–40.

50. John A, Barman A, Bal D, Chandy G, Samuel J, Thokchom M, et al. Hazardous alcohol use in rural southern India: nature, prevalence and risk factors. *Natl Med J India* 2009; 22:123–5.
51. Barros MB de A, Botega NJ, Dalgalarondo P, Marín-León L, de Oliveira HB. Prevalence of alcohol abuse and associated factors in a population-based study. *Rev SaudePublica* 2007; 41:502–9.
52. Hasin DS, Stinson FS, Ogburn E, Grant BF. Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Arch. Gen. Psychiatry* 2007; 64:830–42.
53. Adeyemo DA. Interpersonal factors as correlates of alcohol use among secondary school adolescents in Oyo State, Nigeria. *Anthropologist* 2007; 9:321–6.
54. Gupta PC, Saxena S, Pednekar MS, Maulik PK. Alcohol consumption among middle-aged and elderly men: A community study from western India. *Alcohol Alcohol* 2003; 38:327–31.
55. Meena, Khanna P, Vohra A K and Rajput R. Prevalence and Pattern of Alcohol and Substance Abuse in Urban Areas of Rohtak City. *Indian J Psychiatry* 2002; 44: 348–352.
56. Khosla V, Thankappan KR, Mini GK and Sarma PS. Prevalence & predictors of alcohol use among college students in Ludhiana, Punjab, India. *Indian J Med Res* 2008; 128: 79-81.
57. Sethi S, Kumar P, Gupta S and Bhanwer AJS. Study of Risk Factors for the High Prevalence of Type 2 Diabetes in the People of Jammu. *J Hum Ecol* 2011; 36: 217-221.

58. Obot IS, Room R. Alcohol, gender and drinking problems: perspectives from low and middle income countries. Geneva: World Health Organization, Department of Mental Health and Substance Abuse; 2005.
59. Luitel NP, Jordans M, Murphy A, Roberts B and McCambridge J. Prevalence and Patterns of Hazardous and Harmful Alcohol Consumption Assessed Using the AUDIT among Bhutanese Refugees in Nepal. *Alcohol Alcohol* 2013; 48: 349-55.
60. Roberts B, Ocaka KF, Browne J, Oyok T, Sondorp E. Alcohol disorder amongst forcibly displaced persons in northern Uganda. *Addictive Behaviors* 2011; 36: 870–3.
61. Kumar SG, Premarajan KC, Subitha L, Suguna E, Vinayagamoorthy, Kumar V. Prevalence and Pattern of Alcohol Consumption using Alcohol Use Disorders Identification Test (AUDIT) in Rural Tamil Nadu, India. *J Clin Diagn Res* 2013; 7: 1637-9.
62. Luchters S, Geibel S, Syengo M, Lango D, King'ola N, Temmerman M, et al. Use of AUDIT, and measures of drinking frequency and patterns to detect associations between alcohol and sexual behaviour in male sex workers in Kenya. *BMC Public Health*. 2011;11:e1-8.
63. Davey JD, Patricia OL, and Mary CS. The use of AUDIT as a screening Tool for use in the workplace. *Drug and Alcohol Review* 2000; 19: 49-54.
64. Silva MC, Gaunekar G, Patel V, Kukalekar DS and Fernandes J. The prevalence and correlates of hazardous drinking in industrial Workers: a study from Goa, India. *Alcohol Alcohol* 2003; 38: 79–83.
65. Prakash MS, Benegal V, Sugunan AP and Balakrishna. N. Alcohol consumption: prevalence and pattern in Andaman and Nicobar Islands, a collaborative project of

RMRC, Port Blair, NIMHANS, Bangalore, and Action Aid, International India, 2004.

66. Ellis PM, Collings SCD. Mental health in New Zealand from a public health perspective. Wellington, N.Z.: Public Health Group, Ministry of Health; 1997.
67. Wu Z and Schimmele CM. The Healthy Migrant Effect on Depression: Variation over Time? *Canadian Studies in Population*, 2005; 32: 271-295.
68. Oers JAMV, Bongers IM, van de Goor LA, Garretsen HF. Alcohol consumption, alcohol-related problems, problem drinking and socioeconomic status, *Alcohol and Alcohol* 1999; 34: 78-88.
69. MacAskill S, Parkes T, Brooks O, Graham L, McAuley A and Brown A. Assessment of alcohol problems using AUDIT in a prison setting: more than an 'aye or no' question, *BMC Public Health* 2011, 11: e1-12.
70. Marsden J, Boys A, Farrell M, Stillwell G, Hutchings K, Hillebrand J and Griffiths P. Personal and social correlates of alcohol consumption among mid-adolescents; *British Journal of Developmental Psychology* 2005; 23: 427–450.

Annexure: 1. a

Prevalence, Psychosocial Impact and Correlates of Alcohol Use among Kashmiri-migrants in Jammu District, Jammu and Kashmir, India				
Zone Name	Zonal Code	Ward Name	Cluster Code	Cluster Population (Migrant¹+Local² Population)
Bakshi Nagar	1	Bakshi Nagar A	1	10852
Bakshi Nagar	1	Bakshi Nagar B	2	14505
Bakshi Nagar	1	Bakshi Nagar C	3	9873
Bakshi Nagar	1	Bhagwati Nagar	4	12630
Bakshi Nagar	1	Sarwal	5	19619
Janipur	2	Janipur A	6	10151
Janipur	2	Janipur B	7	9566
Janipur	2	Janipur C	8	10911
Janipur	2	Muthi A	9	13255
Janipur	2	Muthi B	10	9112
Talab Tillo	3	Talab Tillo	11	22018
Talab Tillo	3	Ghomnasa	12	7916
Jagti	4	Jagti	13	13330
Jagti	4	Nagrota	14	7239
Nanak Nagar	5	Nanak Nagar A	15	11846
Nanak Nagar	5	Nanak Nagar B	16	13290
Nanak Nagar	5	Channi Himmat	17	8143
Mini Stadium	6	Mini Stadium	18	13494
Mini Stadium	6	DC Office	19	11867
Mini Stadium	6	Exhibition	20	15825
			Total	245442
SOURCE 1. Data Base of Relief and Rehabilitation Commissioner for Migrants , Government of J&K 2. Electoral records, Election Commission Of India.				

Annexure: 1. b

**Prevalence, Psychosocial Impact and Correlates of Alcohol Use among Kashmiri-migrants in Jammu District,
Jammu and Kashmir, India
Identification of Clusters**

Zone name	Zonal Code	Ward Name	Population (Migrant ¹ + Local ²)	Cumulative Population	Sampling Interval (Total Population/ Total no. of desired clusters)	5 Digit Random Number	Cluster Code	Cluster Identification Number based on PPS (N=10)
Bakshi Nagar	1	Bakshi Nagar A	10852	10852	24544	19826		
Bakshi Nagar	1	Bakshi Nagar B	14505	25357			1	19826
Bakshi Nagar	1	Bakshi Nagar C	9873	35230				
Bakshi Nagar	1	Bhagwati Nagar	12630	47860			2	44370
Bakshi Nagar	1	Sarwal	19619	67479				
Janipur	2	Janipur A	10151	77630			3	68914
Janipur	2	Janipur B	9566	87196				
Janipur	2	Janipur C	10911	98107			4	93458
Janipur	2	Muthi A	13255	111362				
Janipur	2	Muthi B	9112	120474			5	118002
Talab Tillo	3	Talab Tillo	22018	142492				
Talab Tillo	3	Ghomnasa	7916	150408			6	142546
Jagti	4	Jagti	13330	163738				
Jagti	4	Nagrota	7239	170977			7	167090
Nanak Nagar	5	Nanak Nagar A	11846	182823				
Nanak Nagar	5	Nanak Nagar B	13290	196113			8	191634
Nanak Nagar	5	Channi Himmat	8143	204256				
Mini Stadium	6	Mini Stadium	13494	217750			9	216178
Mini Stadium	6	DC Office	11867	229617				
Mini Stadium	6	Exhibition	15825	245442			10	240722

SOURCE

1. Data Base of Relief and Rehabilitation Commissioner for Migrants , Government of J&K
2. Electoral records, Election Commission Of India.

Interview Schedule

**Prevalence, Psychosocial impact and Correlates of Alcohol use
among Kashmiri- Migrants in Jammu District, Jammu and Kashmir**

Serial number (for personal use only):

--	--	--

Zone code			Cluster code		
------------------	--	--	---------------------	--	--

Section 1: Screening process

Eligibility criteria of the participants		Response	Code
1.	Is the Household registered with Jammu Municipal Corporation?(For Local Men) <i>If NO, go to the next household</i> <i>If Yes , go to no:3</i>	Yes 1 No 2	E 1
2.	Is the Household registered with Relief and Rehabilitation Commissioner (RRC), Jammu? (For Migrant Men) <i>If NO, go to the next household</i> <i>If Yes , go to no:3</i>	Yes 1 No 2	E 2
3.	Is there a male member 18 and above years of age in the household? <i>If NO, go to the next household</i> <i>If Yes , go to no:4</i>	Yes 1 No 2	E 3
4.	Willing to participate, obtained the informed consent. <i>If NO, end the interview and go to the next household.</i> <i>If YES go to the next section of the interview schedule.</i>	Yes 1 No 2	E 4

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

Participant's ID No.:

--	--	--	--	--	--

Zonal No. Cluster No. Respondent No.

Section 2: General information

Location and date		Response						Code
1.	Address, Phone number							G 1
2.	Date of Interview							G 2
3.	Start time							G 3
4.	End time							G 4
5.	No. of revisit (s) made to complete interview							G 5

Section 3: Background characteristics

Questions		Response	Code
1.	What is your age in completed years?	Age in years _____	B 1
2.	What is your month and year of Migration from Kashmir? (For Migrants)	Year Month	B 2
3.	What is your current Marital status?	Unmarried.....1 Married.....2 Widowed.....3 Divorced.....4 Separated.....5 Others (specify).....6 Refused.....99	B 3
4.	Duration of marriage	 yrs	B 4

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

5.	What is your religion?	Hindu 1 Muslim 2 Christian 3 Sikhs 4 Others(Specify)..... 5 Refused 99	B 5
6.	What is the highest level of education you have attained?	No formal education..... 1 Less than primary schooling..... 2 Primary school completed..... 3 High school completed 4 Secondary school completed..... 5 Graduate level completed 6 Post Graduate and above..... 7 Refused..... 99	B 6
7.	Which of the following best describes your main work status over the past 12 months?	Government 1 Self-employed..... 2 Non paid..... 3 Student 4 Retired..... 5 Unemployed (able to work)..... 6 Unemployed (unable to work)..... 7 Unorganized labor..... 8	B 7
8.	What is your Family Type?	Nuclear 1 Joint 2 Extended 3	B 8
9.	How many people of 18 years and above, including yourself, live in your household?	Number of people	B 9
10.	What is the average monthly expenditure of your Household?	Rs	B 10
11.	Do you receive financial aid from anywhere? If yes, specify	Yes 1 No 2	B 11

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

Section 4: Prevalence and Patterns of Alcohol use

Questions		Response	Code
12.	Have you consumed an alcoholic drink within the past 12 months?	Yes 1 No 2	P-1
13.	Have you ever consumed an alcoholic drink such as beer, wine, rum, whisky, local brew? <i>If yes go to Q. No 13, If No skip till Q. No 31</i>	Yes 1 No 2	P-2
14.	At what age did you start consuming alcohol?	 years	P-3
15.	Does anyone in your family drink alcohol?	Yes 1 No 2	P-4
16.	Does alcohol consumption effect your health and productivity at work?	Yes 1 No 2	P-5
17.	What is your average expenditure on alcohol in a day when you consume it?	Rs	P-6
18.	Which type of alcohol do you consume?	Whisky 1 Rum 2 Beer 3 Vodka 4 Wine 5 Local Brew 6 No preference 7 Any other 8	P-7

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

19.	Where do you drink alcohol?	At home 1 In bars/pubs 2 Friend's/relative's place 3 At social gatherings, weddings, religious festivals 4 At clubs, restaurants 5 On the street or lonely places 6 Others (specify) 7	P-8
20.	Do you borrow money to buy alcohol?	Yes 1 No 2	P-9
21.	Due to your alcohol habit, have you ever -	Lost income 1 Needed Hospitalization 2 Needed Doctor's visits 3 Needed to pay for Crime related costs (to include public criminal 4 justice system cost, corrections, private expenditure for legal defense, value of property destroyed in crimes due to alcohol abuse) Been involved in Motor vehicle crashes (to include legal and court 5 proceedings, insurance administration, accident investigation, vehicle damage and traffic delay) None of the above.....6	P-10

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

Section 5: Alcohol Use Disorders Identification Test (AUDIT)

Sl.no	Questions	Response	Code
22.	How often do you have a drink containing alcohol?	(0) Never (Skip to Questions 9-10) (1) Monthly or less (2) 2 to 4 times a month (3) 2 to 3 times a week (4) 4 or more times a week	A 1
23.	How many drinks containing alcohol do you have on a typical day when you are drinking?	(0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7, 8, or 9 (4) 10 or more	A 2
24.	How often do you have six or more drinks on one occasion?	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	A 3
25.	How often during the last year have you found that you were not able to stop drinking once you had started?	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	A 4
26.	How often during the last year have you failed to do what was normally expected from you because of drinking?	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	A 5
27.	How often during the last year have you been unable to remember what happened the night before because you had been drinking	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	A 6
28.	How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?	(0) Never (1) Less than monthly (2) Monthly	A 7

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

		(3) Weekly (4) Daily or almost daily	
29.	How often during the last year have you had a feeling of guilt or remorse after drinking?	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	A 8
30.	Have you or someone else been injured as a result of your drinking?	(0) No (2) Yes, but not in the last year (4) Yes, during the last year	A 9
31.	Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?	(0) No (2) Yes, but not in the last year (4) Yes, during the last year	A 10

Section 6: Psychosocial Determinants

Sl.no	Questions	Response	Code
In the last 12 months,			
32.	How do you perceive your health status?	Excellent / good 1 Satisfactory 2 Bad 3 Can't say 4	PD 1
33. Social issues			PD 2
a)	Have you stayed away from home	Yes 1 No 2	PD2a
b)	Have you run away from home	Yes 1 No 2	PD2b
c)	Were you involved in frequent quarrels/brawls	Yes 1 No 2	PD2c
d)	Were you involved in frequent fights/ Got beaten	Yes 1 No 2	PD2d
e)	Have you missed family/relations' social functions	All the time 1 Frequently 2 Occasionally 3 Rarely 4	PD2e
34. Psychological			PD3

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

		Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1	
a)	I am happy with my job	5	4	3	2	1	PD3b
b)	I am happy with my colleagues	5	4	3	2	1	PD3c
d)	I am happy with my married life	5	4	3	2	1	PD3d
e)	I have been under stress / strain	5	4	3	2	1	PD3f
f)	I am sad for unnecessary things	5	4	3	2	1	PD3h
35. Legal							PD4
a)	Has any police complaint been filed against you	Yes 1 No 2					PD4a
b)	Have you paid any penalty	Yes 1 No 2					PD4b
c)	Have you been detained in police station	Yes 1 No 2					PD4c

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

Section 7: Becks Depression Inventory

Becks Depression Scale		Response	Code
36.	Sadness	0 I do not feel sad 1 I feel sad much of the time 2 I am sad all the time 3 I am so sad or unhappy that I can't stand it	D 1
37.	Pessimism	0 I am not discouraged about my future 1 I feel more discouraged about my future than I used to be 2 I do not expect things to work out for me 3 I feel my future is hopeless and will only get worse	D 2
38.	Past failure	0 I do not feel like a failure 1 I have failed more than I should have 2 As I look back, I see a lot of failures 3 I feel I am a total failure as a person	D 3
39.	Loss of Pleasure	0 I get as much pleasure as I ever did from the things I enjoy 1 I don't enjoy things as much as I used to 2 I get very little pleasure from things I used to enjoy 3 I can't get any pleasure from the things I used to enjoy	D 4
40.	Guilty feelings	0 I don't feel particularly guilty 1 I feel guilty over many things I have done or should have done 2 I feel guilty most of the time 3 I feel guilty all of the time	D 5
41.	Punishment feelings	0 I don't feel I am being punished 1 I feel I may be punished 2 I expect to be punished 3 I feel I am being punished	D 6
42.	Self-Dislike	0 I feel the same about myself as ever 1 I have lost confidence in myself 2 I am disappointed in myself 3 I dislike myself	D 7
43.	Self-Criticalness	0 I don't criticize or blame myself more than usual 1 I am more critical of myself than I used to be 2 I criticize myself for all my faults 3 I blame myself for everything bad that happens	D 8

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

44.	Suicidal Thoughts or Wishes	0 I don't have any thoughts of killing myself 1 I have thoughts of killing myself, but I would not carry them out 2 I would like to kill myself 3 I would like to kill myself if I had a chance	D 9
45.	Crying	0 I don't cry anymore than I used to 1 I cry more than I used to 2 I cry over every little thing 3 I feel like crying but I can't	D 10
46.	Agitation	0 I am no more restless or wound up than usual 1 I feel more restless or wound up than usual 2 I am so restless or agitated that it is hard to stay still 3 I am so restless or agitated that I have to keep moving or doing something	D 11
47.	Loss of Interest	0 I have not lost interest in other people or activities 1 I am less interested in other people or things than before 2 I have lost most of my interest in other people or things 3 It's hard to get interested in any things	D 12
48.	Indecisiveness	0 I made decisions as well as ever 1 I find it more difficult to make decisions than before 2 I have much greater difficulty in making than I used to 3 I have trouble making decisions	D 13
49.	Worthlessness	0 I do not feel I am worthless 1 I don't consider myself as worthwhile and useful as I used to 2 I feel more worthless as compared to other people 3 I feel utterly worthless	D 14
50.	Loss of Energy	0 I have as much energy as ever 1 I have less energy than I used to have 2 I don't have enough energy to do very much 3 I don't have enough energy to do anything	D 15
51.	Change in Sleeping Pattern	0 I have not experienced any change in my sleeping pattern 1a I sleep somewhat more than usual 1b I sleep somewhat less than usual 2a I sleep a lot more than usual 2b I sleep a lot less than usual 3a I sleep most of the day	D 16

Interview Schedule

Prevalence, Psychosocial impact and Correlates of Alcohol use among Kashmiri- Migrants in Jammu District, Jammu and Kashmir

		3b I wake up 1-2 hours early and can't get back to sleep	
52.	Irritability	0 I am no more irritable than usual 1 I am more irritable than usual 2 I am much more irritable than usual 3 I am irritable all the time	D 17
53.	Changes in Appetite	0 I have not experienced any change in my appetite 1a My appetite is somewhat less than usual 1b My appetite is somewhat greater than usual 2a My appetite is much less than before 2b My appetite is much greater than before 3a I have no appetite at all 3b I crave food all the time	D 18
54.	Concentration Difficulty	0 I can concentrate as well as ever 1 I can't concentrate as well as usual 2 It's hard to keep my mind on anything for very long 3 I find I can't concentrate on anything	D 19
55.	Tiredness or Fatigue	0 I am no more tired or fatigued than usual 1 I get more tired or fatigued more easily than usual 2 I am too tired or fatigued to do a lot of the things that I used to do 3 I am too tired or fatigued to do most of the things that I used to do	D 20
56.	Loss of Interest in Sex	0 I have not noticed any recent change in my interest in sex 1 I am less interested in sex than used to be 2 I am much less interested in sex now 3 I have lost interest in sex completely	D 21

Please check the completeness of all the entries before leaving the place. Thank the participant for their valuable time and cooperation and end the interview.

Signature of the interviewer

Prevalence, Psychosocial Impact and Correlates of Alcohol Use among Kashmiri-migrants in Jammu District, Jammu and Kashmir, India.

Research Subject Information Sheet

Namaskar, I am Dr Vishal Raina, Master of Public Health student (MPH) of Achutha Menon Centre for Health Science Studies(AMCHSS) of the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum. This study is being carried out as part of the course requirement for the MPH that I am currently undertaking. This study is being done under the supervision of Dr. KR Thankapaan, Professor and Head of the AMCHSS. Please feel free to ask any question or doubt related to this study to me (Cell no:9419285140) or to Dr K R Thankappan (Cell no:09447072171).

Purpose of the study:

Alcohol consumption and its relationship to ill health have been recognized as an important public health challenge even though alcohol use has been part of the cultural traditions in different societies. A significant amount of the public health burden comes from intoxicated behavior, resulting in accidents, violence and other behavioral consequences. The social consequences of alcohol use are individual, social behavior, in social interaction or in social environment. Alcohol use has been reported to be more among displaced communities globally, and there are 14.9 million refugees and 22 million internally displaced persons in the world.

This study is designed with following objectives

To determine the proportion of people using alcohol and its psychosocial impact among the Kashmiri-migrant men in comparison to local resident men of Jammu.

To identify the factors associated with alcohol use for both the populations.

This study is being conducted in all the twenty clusters where migrants from Kashmir are residing with the local residents of Jammu and participants from each cluster are selected randomly and you have been chosen through a random process of selection based on the eligibility criteria for participating in this study. A total of 400 participants will be included and interviewed in this study.

Procedure:

The survey would take approximately 40-45 minutes of your valuable time. You would be asked a few questions related to alcohol use. The collected data will be used for research purpose only.

Risk and discomfort:

Participating in this study imposes no risk to your health. However, you would be asked some questions which could be personal in nature.

Benefits:

There may not be any direct benefit for you from this study but from a public health view point, your information may prove to be of great importance with respect to understanding the burden of the problems related to alcohol use among migrants and local residents and as an issue of public health relevance which may contribute to frame some appropriate strategies for the prevention and control of alcohol consumption in this vulnerable population of the society.

Confidentiality:

Utmost priority will be given to protect the privacy and confidentiality of your personal information. The collected information will not be shared with anyone not involved in the study and reporting will be done in aggregate form only. At no stage your identity will be revealed and for this, a participant identification number will be assigned to you. All hard copies of filled interview schedules and consent forms will be kept under the custody of principal investigator and will be destroyed properly when they are deemed no longer needed or after one year of dissertation report submission, whichever comes first.

Voluntary participation:

Your participation in this study is voluntary and you have the right to withdraw your participation at any time during the interview without any explanation. Refusal to participate will not involve any penalty or loss of benefits to which you are otherwise entitled.

If you have additional questions about this research you may contact me or the IEC member secretary.

Vishal Raina
Cell no: 9419285140
drvishalraina@gmail.com

Dr Anoop Kumar Thekkuveetil,
0471-2520256/7
anoop@sctimst.ac.in

**Prevalence, Psychosocial Impact and Correlates of Alcohol Use among Kashmiri-migrants in
Jammu District, Jammu and Kashmir, India.**

CONSENT STATEMENT

Participant's Unique Identification (UID) number*:

--	--

--	--

--	--

I have read/been read the details of the information sheet. The nature of the study and my involvement has been explained and all my questions regarding the study have been answered satisfactory. By signing / providing thumb impression on this consent form, I indicate that I understand what will be expected from me and that I am willing to participate in this study. I have also been informed who should be contacted for further clarifications. I know that I can withdraw my participation at any time during the interview without any explanation.

Name of the participant: _____

Signature / left thumb print:

--

Date of consent:

D	D
---	---

M	M
---	---

Y	Y
---	---

If the participant is illiterate:

Name of witness: _____

Signature of the witness:

--

Signature of the investigator:

--

Date:

D	D
---	---

M	M
---	---

Y	Y
---	---

* First 2 digits: block code, second 2 digits cluster code, third 2 digits: participant code.