

17-19, FEBRUARY 2014

**JIMMA-MINNESOTA INTERNATIONAL SYMPOSIUM
ON MENTAL HEALTH AND SUBSTANCE USE (JIMIS)**



**ORGANIZED BY JIMMA UNIVERSITY
IN COLLABORATION WITH
KHAT RESEARCH PROGRAM (KRP) AND THE UNIVERSITY OF
MINNESOTA**

Acknowledgement

We would like to express our appreciation to the International Brain Research Organization (IBRO), IBRO Africa Regional Committee (ARC), and the Africa and Middle East Conference on Addiction (AMECA) committee for their financial and logistic support.

CONFERENCE THEME

“Confronting the Challenge of Mental Health and Substance Use Problems in Africa”

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Haramaya University, Ethiopia

Dr. Markos Tesfaye
Jimma University, Ethiopia

Ato Kora Tushune
Jimma University, Ethiopia

Conference Place

College of Agriculture and Veterinary Medicine (JUCAVM)
Jimma University, Jimma, Ethiopia

Conference Date

February 17-19, 2014
Lunch: Organized @ Jimma University Lounge

IBRO Participants Dinner Program

Central Jimma Hotel

Farewell dinner program

Wednesday Night @JUCAVM alumni Garden

Transportation

In front of parking lot, JUCAVM

Places for Excursions

Jimma Aba Jifar Palace
Jimma Museum
Seka Fountains
Soor Fountains
Gibe Dam

Conference Schedule

Sunday, February 16

Get together & welcoming program with Jimma University officials, Ethiopian Ministers and State Ministers, the International Brain Research Organization (IBRO) team, Khat Research Program (KRP) team, and VIP personnel
Place: Central Jimma Hotel

Monday, February 17

8:00-9:00 Registration at entrance hall, JUCAVM, Jimma University

9:00-9:30 Welcoming regards and comments:

- Dr. Fikre Lemessa, President, Jimma University, Chair of the Conference Organizing Committee
- H.E Ato Shiferaw Shigute, Minister, Ministry of Education, Ethiopia
- Prof. Mustafa al'Absi, Director of KRP and Director of the Duluth Medical Research Institute (DMRI), University of Minnesota, Chair of the Scientific Committee

9:30-10:00 Opening remark By Dr. Kesetebirhan Admassu (Minister, Ministry of Health) and IBRO representative

10:00 – 11:30

Session 1

Mental Health and Substance Use Problems: Risk Factors
(Chair: Prof. Mustafa al'Absi & Dr. Tedla Woldegiorgis)

ASSESSMENT OF SUBSTANCE ABUSE AND ASSOCIATED FACTORS AMONG STUDENTS OF DEBRE MARKOS POLY TECHNIC COLLEGE IN DEBRE MARKOS TOWN, EAST GOJJAM ZONE, AMHARA REGIONAL STATE, ETHIOPIA.

Tesfahun Aklog, Girmay Tsegay, Gebeyaw Tiruneh

SUBSTANCE USE, PREVALENCE AND DETERMINANT FACTORS AMONG HIGH SCHOOL STUDENTS IN DIRE DAWA ADMINISTRATIVE COUNCIL, EASTERN ETHIOPIA.

Binyam Negussie, Melake Damena, Gudina Egata

ASSESSMENT OF PERCEPTION, ATTITUDE AND ASSOCIATED FACTORS OF MENTAL DISORDERS AMONG RESIDENTS OF HAWASSA TOWN, SOUTH ETHIOPIA.

Getinet Ayano

HOUSEHOLD FOOD INSECURITY AND MENTAL HEALTH DURING PREGNANCY IN SOUTHWEST ETHIOPIA: FINDING FROM JU-KRP PILOT STUDY.

Mulusew G. Jebena, Fikre Lemessa, Mohammed Taha, Markos Tesfaye, Teklu Gemechu, Esayas Kebede, Yinebeb Tariku, Netsanet Workineh, Motohiro Nakajima, Mustafa al'Absi

SUBSTANCE USE AND RISKY SEXUAL BEHAVIORS AMONG HARAMAYA UNIVERSITY STUDENTS.

Andualem Derese, Assefa Seme

ATTITUDE OF PRIMARY HEALTH CARE PROVIDERS TOWARDS MENTAL, NEUROLOGICAL AND SUBSTANCE USE DISORDERS, ADDIS ABABA, ETHIOPIA. *Zegeye Yohannis Maja, Abebaw Fekadu, Desalegn Bekele, Equinet Misganaw*

11:30-12:00 Coffee Break

12:00 – 1:15

Session 2:

Depression and Associated Disorders

(Chair: Prof. Tefera Belachew & Dr. Motohiro Nakajima)

DEPRESSION: PREVALENCE, SEVERITY AND ITS ASSOCIATION WITH SUBSTANCE USE, JIMMA TOWN, SOUTHWEST ETHIOPIA.

Andualem Mossie, Dagmawi Kindu, Alemayehu Negash

PREVALENCE AND ASSOCIATED FACTORS OF DEPRESSION AMONG ADULT POPULATION OF YAVELLO TOWN, SOUTHERN ETHIOPIA.

Yonas Tadesse Tola, Tadesse Awoke, Tewodros Adera

THE PREVALENCE OF ANTI DEPRESSANT DRUG NON ADHERENCE AND ITS ASSOCIATED FACTORS AMONG PATIENTS WITH MAJOR DEPRESSIVE DISORDER AT AMANUEL MENTAL SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA.

Mulugeta Nega, Tadesse Awoke

PREVALENCE OF ANTENATAL DEPRESSION AND ASSOCIATED FACTORS IN SHASHEMANE TOWN, SOUTH ETHIOPIA.

Wossen Assefa

PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG PRISONERS IN GONDAR TOWN, NORTH GONDAR ZONE, AMHARA REGION, ETHIOPIA.

Badiru Dawud

1:15 – 2:15 Lunch (Jimma University Lounge)

2:15 – 3:45

Session 3:

Basic and Clinical Research on Khat

(Chair: Prof. Atalay Alem & Dr. Markos Tesfaye)

FACTORS ASSOCIATED WITH KHAT USE AND AGE AT FIRST INITIATION AMONG YOUTHS IN SOUTHERN, ETHIOPIA.

Mareliun Tilahun Malaju, Gistane Ayele Asale

CORRELATES OF CONCURRENT USE OF KHAT AND TOBACCO.

Motohiro Nakajima, Mustafa al'Absi

CATHA EDULIS F. (KHAT) REVERSES HALOPERIDOL BUT NOT MORPHINE INDUCED MOTOR DEFICITS FOLLOWING ACUTE AND SUBACUTE ADMINISTRATION IN MICE.

Berhanu Geresu, Ephrem Engidawork

EVALUATION OF THE REVERSIBILITY AND POSSIBLE MECHANISMS OF ANTIFERTILITY OF CATHA EDULIS F. (KHAT) EXTRACT FOLLOWING SUBACUTE ADMINISTRATION IN RODENTS.

Seyfe Asrade, Workineh Shibeshi, Ephrem Engidawork

THE EFFECT OF ACUTE AND SUB-ACUTE EXPOSURE TO CRUDE KHAT (CATHA EDULIS F) EXTRACT ON LEARNING AND MEMORY IN RODENTS.

Ashenafi Girma, Ephrem Engidawork

3:45 – 4:15 Coffee break (Poster viewing: all poster presenters should be standing next to their posters in designated location)

4:15 – 5:30

Session 4:

Psychopathology and Substance Use: Magnitude of the Problems

(Chair: Prof. Mustafa al'Absi & Dr. Markos Tesfaye)

PREVALENCE OF ALCOHOL USED RELATED DISORDERS & ITS ASSOCIATED FACTORS AMONG ADULTS ATTENDING PRIMARY HEALTH CARE CLINICS IN JIMMA TOWN.

Alemayehu Negash

PREVALENCE OF COMMON MENTAL DISORDERS AND ASSOCIATED FACTORS AMONG ADULTS IN KOMBOLCHA TOWN, NORTHEAST ETHIOPIA.

Kedir Yimam, Yigzaw Kebede, Telake Azale

PREVALENCE OF COMMON MENTAL DISORDERS ITS ASSOCIATED FACTORS DURING PREGNANCY IN SOUTHWEST ETHIOPIA: FINDING FROM JU_KRP PILOT STUDY.

Mohammed Taha, Mulusew G. Jebena, Mustafa al'Absi, Motohiro Nakajima, Fikre Lemessa, Esayas Kebede, Markos Tesfaye, Teklu Gemechu, Netsanet Workineh, Yinebeb Tariku

THE PHARMACOLOGICAL AND PSYCHOSOCIAL EFFECTS OF KHAT.

Eleni Palazidou

A REVIEW OF PREVALENCE AND IMPACTS OF KHAT IN ETHIOPIA.

Tesera Bitew, Solomon Tefera

Tuesday, February, 18

9:00 – 9:30

Key note presentation

OPPORTUNITIES AND CHALLENGES OF MENTAL HEALTH RESEARCH IN AFRICA

Presenter: Prof. Atalay Alem

Chair: Prof. Mustafa al'Absi

9:30 – 10:30

Session 5:

Stress and Substance Use: Magnitude of the Problems

(Chair: Dr. Berhanu Belay)

ASSESSMENT OF WORK RELATED STRESS AND ASSOCIATED FACTORS AMONG NURSES WORKING IN PUBLIC HOSPITALS OF ADDIS ABABA, ETHIOPIA: A CROSS-SECTIONAL STUDY.

Selamawit Zewdu

KHAT AND EMOTION REGULATION: CROSS-SECTIONAL AND PILOT STUDIES IN YEMEN AND GERMANY.

Stephan Bongard, Benjamin Pieck, Mustafa al'Absi

CONCURRENT TOBACCO AND KHAT USE IS ASSOCIATED WITH DYSREGULATED CARDIOVASCULAR STRESS RESPONSE AND ENHANCED NEGATIVE MOOD.

Mustafa al'Absi, Motohiro Nakajima, Anisa Dokam, Abed Sameai, Mohamed AlSoofi, Najat Saem Khalil, Molham Al Habori

10:30-11:00 Coffee break (Poster session: all poster presenters should be standing next to their posters in designated location)

11:00 – 12:30

Session 6:

Co-morbidity of Substance Use with Health
(Chair: Prof. Abrham Haileamlak & Prof. Stephan Bongard)

MAJOR PSYCHOLOGICAL AND SOCIAL PROBLEMS OF KHAT CHEWING RELATED TO THE LEVEL OF DEPENDENCY ON KHAT AMONG BAHIR-DAR UNIVERSITY STUDENTS.

Asfaw Getnet

ALCOHOL USE DISORDERS AND ASSOCIATED FACTORS AMONG PEOPLE LIVING WITH HIV WHO ARE ATTENDING SERVICES IN SOUTH WEST ETHIOPIA.

Matiwos Soboka, Markos Tesfaye, Garumma Tolu Feyissa, Charlotte Hanlon

PSYCHOTIC SYMPTOMS AND KHAT USE IN SOMALI REFUGEES IN NAIROBI.

Marina Widmann, Jan Mikulica, Johannes von Beust, David Ndeti, Mustafa al'Absi, Michael Odenwald

INFLUENCES OF CHRONIC USE OF TOBACCO AND KHAT (*CATHA EDULIS*) ON SUBJECTIVE SLEEP QUALITY.

Motohiro Nakajima, Mustafa al'Absi

COMMON MENTAL DISORDER SYMPTOMS AMONG PATIENTS WITH MALARIA IN PRIMARY HEALTH CARE IN ETHIOPIA: A CROSS-SECTIONAL SURVEY

Markos Tesfaye, Charlotte Hanlon, Fasil Tessema, Martin Prince, Atalay Alem

12:30 – 1:30

Session 7:

Stigma in Mental Health and Substance Use Disorders

(Chair: Dr. Michael Odenwald)

PERCEIVED STIGMA AMONG CAREGIVERS/ FAMILIES OF PERSONS WITH SEVERE MENTAL ILLNESS IN JIMMA CITY, ETHIOPIA.

Muhammed Seid, Markos Tesfaye, Eshetu Girma, Sandra Dehning

PERCEIVED STIGMA AND ASSOCIATED FACTORS AMONG CARE GIVERS OF SCHIZOPHRENIC PATIENTS ATTENDING AMANUEL MENTAL SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA.

Tesfalem Araya

PREVALENCE AND FACTORS ASSOCIATED WITH PERCEIVED STIGMA AMONG PATIENTS WITH EPILEPSY AT AMANUEL MENTAL SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA.

Tolesa Fanta

1:30 – 2:30: Lunch (Jimma University Lounge)

2:30 – 4:00

Session 8:

Psychopathology and Substance Use: Intervention Efforts and Policies

(Chair: Dr. Motohiro Nakajima & Dr. Mesfin Araya)

EFFECTIVENESS OF EXISTENTIAL GROUP THERAPY IN TREATING PSYCHOLOGICAL PROBLEMS OF CERVICAL CANCER PATIENTS IN CANCER CARE ETHIOPIA.

Solomon Admasu Ytayew

PSYCHOLOGICAL TREATMENT OF KHAT ABUSE AND DEPENDENCE: A PILOT STUDY IN NAIROBI.

Michael Odenwald, Marina Widmann, David Ndeti

CHALLENGES OF SUBSTANCE ABUSE PREVENTION AND INTERVENTION EFFORTS IN BOTSWANA.

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Seipone B.M.Mphele, Morekwe M.Selemogwe

RECENT SOCIAL AND HEALTH INSURANCE REFORMS IN ETHIOPIA AND THE IMPLICATIONS FOR MENTAL HEALTH.

Hone Mandefro Belaye

YOUTH PEER EDUCATION FOR PREVENTION AND CONTROL OF SUBSTANCE ABUSE: SARC EXPERIENCE IN JAZAN, SAUDI ARABIA.

Abdelrahim Mutwakel Gaffer, Mohamed E. Moukhyer

ETHIOPIA'S MINISTRY OF HEALTH'S NATIONAL MENTAL HEALTH STRATEGY AND ITS IMPLICATION FOR THE DEVELOPMENT OF A GUIDELINE FOR SUBSTANCE MISUSE: CHALLENGES AND OPPORTUNITIES.

Tedla Woldegiorgis

4:00-4:30 Coffee break

4:30-5:30 Discussion on research capacity building in Africa & networking

Wednesday, February, 19

9:00-12:00 IBRO Addiction Research workshop

12:00-1:00 Lunch break

1:00-4:00 IBRO Addiction Research workshop

4:30-5:00 Certificate and conference closing remark

COLLECTION OF ABSTRACTS

Abstract #1 (Session 1)

ASSESSMENT OF SUBSTANCE ABUSE AND ASSOCIATED FACTORS AMONG STUDENTS OF DEBRE MARKOS POLY TECHNIC COLLEGE IN DEBRE MARKOS TOWN, EAST GOJJAM ZONE, AMHARA REGIONAL STATE, ETHIOPIA

Tesfahun Aklog, Girmay Tsegay, Gebeyaw Tiruneh*

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Introduction: Students of higher educational institution are at higher risk of substance abuse. Currently, substance abuse is one of the most burning public health problems in Ethiopia. Although it has been known that this public health problem is a pressing issue, the real extent and magnitude of substance abuse is not yet properly explored.

Objectives: The aim of this study was to determining the prevalence of substance abuse and its associated factors among students of Debre Markos Poly Technic College.

Methods: A cross-sectional study was conducted to determine the overall prevalence of substance abuse among students and factors associated with it. A simple random sampling technique was conducted to select 423 students from the list of students in their respective batch after stratifying them based on year of study. A pre-tested semi-structured questionnaire was used to collect data, which was entered and cleaned using Epi Data version 3.1 and analyzed using SPSS version 16.0 statistical package. Descriptive statistics and logistic regression were performed to examine the prevalence and predictors of substance abuse. CAGE-AID was used to measure substance abuse.

Results: The overall prevalence of substance abuse was 14.1 %. The commonly abused substances were alcohol 13.4 %, khat 7.8 %, and cigarette 5.4 %. Sex [AOR, 95% CI; 3.550 (1.451, 8.685)], peer pressure [AOR, 95% CI 3.405 (1.047, 11.076)], availability of the drugs [AOR, 95% CI 3.394 (1.677, 6.868)], family drug use [AOR, 95% CI; 2.698 (1.337, 5.443)], personal pleasure [AOR, 95% CI 3.346 (1.315, 8.512)] and academic dissatisfaction [AOR, 95% CI 2.739(1.253, 5.985)] were found to be significantly associated with students to abuse substances.

Conclusion: A significant proportion of students were substance abused. Sex, peer pressure, availability of drugs, family drug use and academic dissatisfaction were significantly associated with substance abuse. Efforts to reduce the prevalence of substance abuse action should be taken on those predictors.

Abstract #2 (Session 1)

SUBSTANCE USE, PREVALENCE AND DETERMINANT FACTORS AMONG HIGH SCHOOL STUDENTS IN DIRE DAWA ADMINISTRATIVE COUNCIL, EASTERN ETHIOPIA

Binyam Negussie, Melake Damena, Gudina Egata*

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Background: Substance use among adolescents is a problem throughout the world. In Ethiopia, the use of psychoactive substances is rapidly increasing.

Objectives: To assess the prevalence and determinants of substance use among high school students in Dire Dawa, Ethiopia.

Methods: A cross-sectional study design using a questionnaire and supplemented by focus group discussion (FGD) was conducted from December, 2010 to January, 2011. A multistage proportional sampling technique was used to determine a sample size of 762. There were a total of 728 respondents for a response rate of 96%. The data were collected by trained facilitators and analyzed quantitatively and qualitatively. Data were entered by Epi-info and analyzed using SPSS. Four focus group discussions were held.

Results: Past history (life time) of chewing khat, cigarette smoking, alcohol drinking and shisha smoking prevalence were 18.4%, 13%, 34.2%, and 12.8%, respectively. The current chewing of khat, cigarette smoking, alcohol drinking, and shisha smoking prevalence were 10.9%, 5.6%, 9.6% and 7.6%, respectively. For each of the current substance users, multiple logistic regression analysis showed different statistically associated covariates including gender, grade in school, religion, ethnicity, presence of income, peer and social pressures, substance use by significant others, knowledge and attitudes about substance use, and parental factors. The results of the FGDs provided important determinant factors of substance use.

Conclusion: The study revealed that the prevalence of substance use was high when compared to other studies conducted in similar settings. The education bureau and school administrators should intervene accordingly by incorporating intervention programs into the regular school curriculum.

Abstract #3 (Session 1)

ASSESSMENT OF PERCEPTION, ATTITUDE AND ASSOCIATED FACTORS OF MENTAL DISORDERS AMONG RESIDENTS OF HAWASSA TOWN, SOUTH ETHIOPIA

Getinet Ayano*

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Background: In Ethiopia mental disorders are becoming one of the public health problems. However, little is known about perception and attitude of the public regarding mental disorders.

Objectives: To assess perception, attitude, and associated factors of mental disorders among residents of Hawassa town, southern Ethiopia.

Methods: A community based cross sectional study was used in Hawassa town, May 2013. Participants were selected by using multistage sampling method. The study participants were allocated to the selected kebeles proportionally to their estimated number of households and data was collected by using structured, pre-tested and interviewer administered questionnaire. The data entry, clearance and analysis were conducted by SPSS version 20.

Results: A total of 830 participants were enrolled in the study giving an overall response rate of 98.2%. About 66.5% of respondents have good perception about schizophrenia and about 51.08% respondents have good perception about epilepsy but the perception of the respondents to depression and alcoholism is poor 56% and 58%, respectively. Age [AOR=4.79, 95% CI=(2.13-10.77)], income [AOR=3.41, CI=(2.12-5.50)], getting information from mass media [AOR=1.38, CI=(1.11-2.07)] and information from religious institutions [AOR=0.44, CI=(0.285-0.68)] for schizophrenia, age [AOR=3.97, 95% CI=(1.87-8.40)], income [AOR= 2.58, CI=(1.54-4.34)], information from mass media [AOR=1.94, CI=(1.44-2.63)], information from religious institutions [AOR=0.57, CI=(0.40-0.82)] and information from health institutions [AOR=1.73, CI=(1.15-2.2.60)] for epilepsy, age [AOR=6.02, 95% CI= (2.76-13.15)] and income [AOR= 2.93, CI=(1.71-5.02)] for alcoholism, age [AOR=3.12, 95% CI= (2.08-4.68)] and educational level [AOR= 2.34, CI=(1.71-5.02)] for depression were found to be significant predictors of perceptions.

Conclusion: In general about 2/3rd of public has good perception about schizophrenia, and about half of respondents have good perception about epilepsy. However, less than half of the respondents have good perception about alcoholism and depression, and more than half of public have negative attitude for schizophrenia, epilepsy and alcoholism. The majority of public have positive attitude to patients with depression. Age, educational level, income and source of information's for perception and educational level, income, source of information and perception for attitude found to be significant predictors. Educating people about mental disorders by using mass media and health institutions and working with religious institutions is vital.

Abstract #4 (Session 1)

HOUSEHOLD FOOD INSECURITY AND MENTAL HEALTH DURING PREGNANCY IN SOUTHWEST ETHIOPIA: FINDING FROM JU-KRP PILOT STUDY

Mulusew G. Jebena, Fikre Lemessa, Mohammed Taha, Markos Tesfaye, Teklu Gemechu, Esayas Kebede, Yinebeb Tariku, Netsanet Workineh, Motohiro Nakajima, Mustafa al'Absi*

**Population and Family Health, Jimma University*

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Background: There are compelling reasons that link food insecurity to psychological distress in the setting where mental illness and food insecurity are common. Yet, little is known about the correlates of household food insecurity and mental health status during pregnancy in Ethiopia.

Methods: A cross-sectional study was conducted to study the association of household food insecurity with mental health. Six-hundred and forty-two pregnant women were recruited from 11 health centers and one hospital. Probability proportional to size sampling (PPS) techniques and consecutive sampling technique was employed to get the study subjects until the desired sample size were collected. Self reporting questionnaire (SRQ_20) was used to measure mental distress, and household food insecurity access scale of 9 items were used to measure food security status. Descriptive and Inferential statistics were computed accordingly. All P values were two tailed and 95% CI and P value less than or equal to 0.05 were set for statistical significance.

Results: Fifty-eight (9%) of the respondents were living food insecure households. Food insecurity was correlated with mental health. Pregnant women coming from food secure household has less likely to have common mental disorder COR 95% CI: 0.26 (0.15, 0.46). After controlling the effect of confounders, hierarchical regression model also depicts food security was significantly associated with mental distress AOR 95% CI: 0.12 (0.05, 0.26). The roles of other surrogates as either mediators or moderators were not clearly known in this study.

Conclusion: Results suggested there was an association between food insecurity and presence of mental health issues. However, the mechanisms by which food insecurity was associated with mental health deserve further investigation.

Abstract #5 (Session 1)

SUBSTANCE USE AND RISKY SEXUAL BEHAVIORS AMONG HARAMAYA UNIVERSITY STUDENTS

Andualem Derese, Assefa Seme*

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Background: Substance use and problems arising from it are increasing all over the world, and currently together with acquired immune deficiency syndrome epidemic, it is becoming one of the most threatening and challenging social and public health problems.

Objectives: To assess the prevalence of substance use and its association with risky sexual behavior among Haramaya University students.

Methods: A cross-sectional study was carried out among 725 randomly selected Haramaya University undergraduate students from December 2010 to January 2011 using a self-administered questionnaire. Students are stratified by campus and year of study. Systematic random sampling was used to select students from each year of study in both campuses. Descriptive statistics were used to describe the study population, and cross-tabulation was done to see the association between dependent and independent variables. Logistic regressions with 95% confidence intervals were calculated to determine independent predictors of risky sexual behavior.

Results: Among 725 respondents 53.8% reported having used at least one substance in their lifetime. The most commonly used substance was alcohol (41.7%), followed by khat (30.3%), cigarette (11.3%) and illicit drugs (3.9%). Of the total respondents 33.5% had sexual experience in their lifetime. Being male had strong association with life time substance use of at least one substance [AOR (95% CI) =5.06 (3.44, 7.43)], and the odds of performing risky sex among males were 1.9 times higher than that of females (AOR=1.89, 95% CI=1.18, 3.04). Life time use of khat, alcohol and cigarette was significantly and independently associated with risky sexual activities with AOR (95% CI) of 2.58(1.58, 4.22), 2.46(1.52, 3.98) and 2.22(1.19, 4.14) respectively.

Conclusion: The prevalence of substance use among Haramaya university students was high. Use of khat, alcohol and cigarette was significantly associated with risky sexual activities. Awareness raising about safer sex and consequences of substance is highly advisable.

Abstract #6 (Session 1)

ATTITUDE OF PRIMARY HEALTH CARE PROVIDERS TOWARDS MENTAL, NEUROLOGICAL AND SUBSTANCE USE DISORDERS, ADDIS ABABA, ETHIOPIA

Zegeye Yohannis Maja, Abebaw Fekadu, Desalegn Bekele, Equinet Misganaw Amanuel*

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Background: The treatment gap for mental, neurological and substance use (MNS) disorders is high in low and middle income countries, where over 75% of people with mental, neurological and substance use disorders receive no treatment or care at all. The main strategy to narrow this treatment gap is through integration of mental health care into primary healthcare. An important first step in the delivery of integrated care is to evaluate the attitude and capacity of primary healthcare workers.

Objectives: This study aimed to assess capacity and attitude of primary care workers and the factors associated with these outcomes.

Methods: A cross-sectional study was conducted from March 20 to April 1, 2011 in 16 primary healthcare settings in Addis Ababa, the capital city of Ethiopia. A multistage sampling technique was used to select study participants. Pre-tested, questionnaires prepared in Amharic were self-administered by 612 participants. Associations were computed through the logistic regression method.

Results: A total of 581 participants returned completed questionnaires with a response rate of 95.0%. Most respondents were men (n=368; 63.3%). Most had favorable attitude (n=448; 77.1%) and nearly half of the participants were considered to have good knowledge (n=264, 45.8%). Lack of basic psychiatric training, shorter duration at work, and high work load were associated with poor knowledge and negative attitude.

Conclusion: Encouraging proportion of primary care staff have favorable attitude towards mental illness and good knowledge. Improving training in basic mental health and managing the work load may positively impact the integration of mental health services into primary healthcare.

Abstract #7 (Session 2)

DEPRESSION: PREVALENCE, SEVERITY AND ITS ASSOCIATION WITH SUBSTANCE USE, JIMMA TOWN, SOUTHWEST ETHIOPIA

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Background: Depression is a significant contributor to the global burden of disease and affects 350 million people across the world. Substance use could be the risk factor for depression. Despite this fact, there is a paucity of information on the association between depression and substance use. The main aim of the present study was to determine the prevalence and severity of depression and its association with substance use.

Methods: A cross-sectional study was conducted in Jimma Town in March, 2012. A multi-stage stratified sampling method was conducted using structured questionnaire and Beck Depression Inventory scale Version II (BDI-II) for data collection. Six Kebeles were selected using lottery method from thirteen Kebeles of Jimma town. From these Kebeles, 650 households were selected using systematic random sampling. One adult person was chosen from each household, thus 650 samples were selected. Data analysis was carried out using the SPSS version 16.0 for Windows.

Results: From 650 sampled individuals, 590 participants delivered complete information; giving the response rate of 90.77%. Majority of the respondents were females (n=300; 50.9%), age group 24-35 (31.9%), married (n=312; 52.9%), and merchants (n=213; 36.1%). The current prevalence of depression was 171 (29.0%). Based on BDI-II grading of the severity of depression, 102 (17.3%) had mild, 56 (9.5%) moderate, and 13 (2.2%) had severe depression. According to our study result, age 55 years and above [OR=5.94, CI (2.26-15.58)], widowed [OR=5.18, CI (1.18-22.76)], illiterate [OR=9.06, CI (2.96-27.75)], khat chewers [OR=10.07, CI (5.57-18.25)], cigarette smokers [OR=3.15, CI (1.51-6.58)], and shisha users [OR=3.04, CI (1.01-9.19)] were significantly associated with depression independently.

Conclusion: The magnitude of depression in Jimma town was found to be high. Old age, being widowed, illiterate, khat chewing, cigarette smoking and shish usage could be the potential risk factors for depression. Therefore, prevention of depression is an area that deserves attention. Reduction of risk factors for depression such as khat chewing, cigarette and shisha smoking is commendable. Psychological and pharmacological therapies are equally important as well.

Abstract #8 (Session 2)

PREVALENCE AND ASSOCIATED FACTORS OF DEPRESSION AMONG ADULT POPULATION OF YAVELLO TOWN, SOUTHERN ETHIOPIA

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Background: Depression is one of the leading public health problems with high prevalence on the world and estimated to be the second disabling disease of mankind in 2020. It is common emotional disorder that leads to morbidity and mortality among community.

Objective: This study aimed to assess the prevalence of depression and its associated factors among adults of Yavello town, southern Ethiopia, 2013

Methodology: A community based cross-sectional study was conducted in Yavello town residents from May 1 to May 30 by using sampling formula for estimation a population proportion. A systematic random sampling technique was used to select 384 respondents among adults of Yavello town. Data was collected by face to face interview. Data quality was assured by pre-test and modification of questionnaires. Trained data collector analyzed quantitative data using SPSS 20.

Results: The Prevalence of depression in this study was 19.2%. Being Divorced or widowed or separated [AOR=7.52 (95% CI 2.41, 23.52)], Family history of depression [AOR=7.67 (95% CI 3.07, 19.14)], Chronic medical illness [AOR=5.49 (95% CI 2.23, 13.51)], chat users [AOR=3.09 (95% CI 1.17, 8.17)] and Tobacco users [AOR=5.87 (95% CI 1.95, 17.69)] were factors significantly associated with depression.

Conclusion: In the current study area about one fifth of study participants were found to be depressed. Divorced/widowed, Family history depression, chronic medical illness, tobacco use and chat use were found to have statistical significance with depression.

Abstract #9 (Session 2)

THE PREVALENCE OF ANTI DEPRESSANT DRUG NON ADHERENCE AND ITS ASSOCIATED FACTORS AMONG PATIENTS WITH MAJOR DEPRESSIVE DISORDER AT AMANUEL MENTAL SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA

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Background: Major depression is a significant contributor to the global burden of disease and today 350 million people are suffering from it. Antidepressants are effective in treatment of depression, but non adherence to antidepressants is a challenging problem in the management of patients with depression. Despite high magnitude of the problem there is no sufficient information regarding magnitude and factors responsible for frequent drug non adherence among patients with major depressive disorder in Ethiopia.

Objectives: The aim of this study was to assess the prevalence of antidepressant drug non adherence and its associated factors among patients with major depressive disorder at Amanuel Mental Specialized Hospital.

Methods: Institution based cross sectional study was employed among patients with major depressive disorder from May 6 to 31; 2013. Systematic random sampling was used to obtain a total of 413 participants in the outpatient department of the hospital. Morisky medication adherence rating scale was used to assess the antidepressant drug non adherence. Data was collected using interviewer administered, pre-tested, and structured questionnaires. Data were analyzed by SPSS version 20.

Results: The prevalence of antidepressant drug non adherence among patients with major depressive disorder was found to be 55.45%. Multiple logistic regression models of antidepressant drug non adherence revealed that taking antidepressants with low potency typical antipsychotics concomitantly [AOR=2.90, 95% CI: 1.21, 6.75], being on treatment for more than 24 months [AOR=3.12, 95% CI 1.30, 7.52], having negative attitude towards the drugs [AOR=8.4, 95% CI: 2.74, 25.6] and perceived stigma [AOR=2.90, 95% CI: 1.59, 5.27] were statistically associated with the antidepressant drugs non adherence.

Conclusion: The prevalence of antidepressant drug non adherence among patients with major depressive disorder was found to be high in this study. Taking antidepressants with low potency antipsychotics concomitantly, being on treatment for longer than 24 months, perceived stigma and negative attitudes towards drugs were found to be significantly associated with antidepressant drugs non adherence. Federal Ministry of Health and Amanuel Mental Specialized Hospital should develop major depressive disorder treatment guideline. Health care providers should also select the appropriate class of antipsychotic used concomitantly with antidepressants while treating patients with major depressive disorder.

Abstract #10 (Session 2)

PREVALENCE OF ANTENATAL DEPRESSION AND ASSOCIATED FACTORS IN SHASHEMANE TOWN, SOUTH ETHIOPIA

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Background: Despite the high prevalence of depression and its known associated factors antenatal depression remains a low priority in research and health care practice in most of developing countries like Ethiopia.

Objectives: The study aimed at determining the prevalence of depression and its associated factors among pregnant women following antenatal care in Shashemene town health facilities.

Methods: Institution based cross-sectional study was conducted from September 1- 30, 2013, among 660 pregnant women following antenatal care. Simple random sampling technique was used to recruit, from six public and private health facilities in Shashemene town, based on proportional allocation to their size. The data were collected using a pre-tested structured questionnaire/tool using Edinburgh Postnatal Depression Scale (EPDS), the analysis were made using SPSS version 20. The chi-square test and Binary and Multivariate logistic regression was used to identify the associated factors and predictors.

Results: The prevalence of antenatal depression in this study was 25.6 % (95%CI: 22.0, 28.8). Those unmarried (single, widowed and divorced) pregnant women were 3 times more likely to have depression than their counter parts [AOR 95% CI: 3.15(1.34, 7.38)] and also those pregnant women who hadn't negative obstetric history (miscarriage) less likely to have depressive symptom [AOR 95%CI: 0.77(0.35, 0.97)]. The odds of mothers having a total household monthly income of above 1000 Eth. birr are less likely to experience depressive symptoms than those earning below 500 Eth. birr [AOR 95%CI: 0.20(0.10, 0.38)] . Conflict with husband and lack of support from husband and family member during pregnancy), and history of any form of intimate partner violence were also associated with decreased odds of antenatal depression.

Conclusion: This study showed the prevalence of depression was common among antenatal pregnant women. There are also factors contributing for this occurrence. Thus, any public health intervention designed to promote mental health should take in to account about socio economic status, prevention of unwanted pregnancy and also the role of male involvement.

Abstract #11 (Session 2)

PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG PRISONERS IN GONDAR TOWN, NORTH GONDAR ZONE, AMHARA REGION, ETHIOPIA

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Background: Depression is one of the most common mental illness which is defined as a strong mood involving sadness discouragement, despair, or hopelessness that lasts for weeks, months or even longer. Several previous studies have reported on the prevalence of depression and factors associated with it, but knowledge in this area remains scarce regarding prisoners.

Objectives: To determine the prevalence of depression and associated factors among prisoners in Gondar town, Amhara region, North-West Ethiopia.

Methods: We used institutional based cross-sectional study design, and 349 prisoners were sampled by simple random sampling method from Gondar town prison. Each prisoner was interviewed by group members using the Clinical Global Impression of severity scale (CGIs) questionnaire which composed of 18 items that include the DSM-IV depression symptoms. The data was analyzed by manual and SPSS version 16.0. The result of the study was presented by using frequency, percentage, and tables.

Results: There was high prevalence of depression 216 (62.02%) among Gondar town prisoners of which 52 (14.94%) of prisoners had major depressive disorder. Only age was associated with depression.

Conclusion: Depression was high in Gondar town prison and was associated with age. It is advisable to solve their problem by link with hospital and other health care givers.

Abstract #12 (Session 3)

FACTORS ASSOCIATED WITH ALCOHOL USE AMONG YOUTHS IN GAMO GOFA, SOUTHERN ETHIOPIA

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Background: Alcohol consumption at a young age increases the risk of developing alcohol related problems later in life, poor academic performance and increased risk of contracting HIV and other sexually transmitted diseases or other psychiatric disorders such as lethargy, hopelessness and insomnia.

Methods: Health institution based cross-sectional study was conducted in South West Ethiopia from January 15 – March 20, 2012. A sample size of 410 was calculated by Epi-info stat calc and stratified sampling technique was used. Multivariate logistic regression and Cox regression was used to assess the degree of association between dependent and independent variables.

Results: A total of 148 (36.5%) youths were found to be alcohol users and 104 (25.7%) of them were HIV positive. Alcohol use was positively associated with being male [OR & (95%CI) = 1.989(1.061, 3.728)], khat use [OR & (95%CI) = 5.551(3.016, 10.216)], not having comprehensive knowledge on HIV [OR & (95%CI) = 1.899 (1.024, 3.520)], HIV positive status [OR & (95%CI) = 5.645(2.854, 11.165)], being merchant [OR & (95%CI) =10.254(2.366, 24.446)] and student [OR & (95%CI) = 4.045(1.473, 11.108)]. Initiation of alcohol use before 18 years was also positively associated with not having comprehensive knowledge on HIV [Adj. HR & (95%CI) = 1.914(1.091, 2.550)], khat use [Adj. HR & (95%CI) = 3.050 (2.007, 4.636)], watching sexual films [Adj. HR & (95%CI) = 1.892 (1.032, 3.296)] living apart from parents [Adj. HR & (95%CI) = 2.315 (1.176, 4.558)] having -monthly income of \leq \$ 25 [Adj. HR & (95%CI) = 3.187 (1.854, 5.480)] and \$ 25.1 - \$ 55.5[Adj. HR & (95%CI) = 1.951(1.010, 3.771)]

Conclusion: Strategies should be designed to increase awareness of factors associated with early alcohol use among youths and their parents in order to reduce the prevalence of alcohol use and its adverse social and health consequences.

Abstract #13 (Session 3)

CORRELATES OF CONCURRENT USE OF KHAT AND TOBACCO

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Background: Smoking is often used while khat chewing. However, characteristics of concurrent use of khat and tobacco have not been systematically examined.

Objectives: This study was aimed to examine correlates of concurrent use of khat and tobacco.

Methods: A cross-sectional survey study was conducted in Yemen including concurrent users of khat and tobacco, khat-only users, and nonusers of khat and tobacco. Both men and women were recruited to maximize generalizability.

Results: We found that the age of onset of khat use was earlier and reported hours of khat use was longer in concurrent users than in khat-only users. Earlier age when started khat chewing was related to greater number of cigarettes smoked while chewing. Approximately 70% of concurrent users reported that they initiated khat chewing prior to cigarette smoking. We also found gender differences in patterns of khat and tobacco use. Male concurrent users reported more frequent and intense tobacco use than their counterparts. While chewing khat, men were more likely to smoke cigarettes while women tended to smoke waterpipe.

Conclusion: These observations suggest linkages between khat and tobacco use. It is also possible that khat use serves as a gateway to tobacco use.

Abstract #14 (Session 3)

CATHA EDULIS F. (KHAT) REVERSES HALOPERIDOL BUT NOT MORPHINE INDUCED MOTOR DEFICITS FOLLOWING ACUTE AND SUBACUTE ADMINISTRATION IN MICE

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Background: Khat (*Catha edulis* F.) is widely chewed in Africa and the Middle East. The use of the plant is associated with different central and peripheral effects.

Objectives: The aim of this study is to evaluate acute and sub-acute effects of crude khat extract in haloperidol and morphine-pretreated mice by measuring behavioral and biochemical parameters.

Methods: Crude khat extract obtained using a mixture of chloroform and diethyl ether (1:3) was administered orally in doses of 100, 200, and 300 mg/kg as a single dose and repeatedly for fourteen days, and motor parameters, including catalepsy and locomotor behavior as well as biochemical markers for oxidative stress, such as activity of superoxide dismutase (SOD) were measured.

Results: Whilst acute and sub-acute oral administration of khat failed to reverse morphine-induced motor deficits, it was capable of reversing the haloperidol-induced one in a manner that depended on time and dose. In both settings, khat at 200 and 300 mg/kg dose as well as amphetamine (50 mg/kg) produced a consistent improvement in motor performance. The effects observed were either comparable or better than amphetamine. By contrast, both khat (300 mg/kg) and amphetamine increased plasma SOD activity in both haloperidol and morphine pretreated animals. SOD activity increase was significantly higher in khat 300 mg/kg compared to haloperidol/morphine pretreated controls ($p < 0.001$) as well as amphetamine treated ($p < 0.05$) mice.

Conclusion: The findings collectively indicate that haloperidol induced motor abnormalities are mediated by the dopaminergic system, while morphine may utilize other pathways in causing such deficits. Moreover, modulation of SOD although considered to be a contributing factor in reversing haloperidol-induced motor deficit, it might not be sufficient to prevent that induced by morphine.

Abstract #15 (Session 3)

EVALUATION OF THE REVERSIBILITY AND POSSIBLE MECHANISMS OF ANTIFERTILITY OF *CATHA EDULIS* F. (KHAT) EXTRACT FOLLOWING SUBACUTE ADMINISTRATION IN RODENTS.

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Background: The study of anti fertility mechanisms of khat can be used to counteract the possible toxicities during pregnancy as abuse of khat is common in all segments of female population.

Objectives: The present study assessed the reversibility of anti-fertility effect and to evaluate the possible mechanisms of anti fertility of the chloroform diethyl ether extract of *Catha edulis*.

Results: K300 exhibited significant decrease in the mean number of litters and mean birth weight of live litters compared to K100 and control group (CON) ($p < 0.01$ in both cases). The anti-implantation and anti fertility effects were reversible after a 21 day washout period. Post-implantation losses for K200 and K400 were 27% ($p < 0.01$) and 30% ($p < 0.01$), respectively. Maternal mortality in pregnant mice and morphological changes like massive leukocyte infiltration, necrosis and haemorrhage in rat uterus were observed in K400. No morphological changes were shown in ovary at all doses of the extract.

Conclusion: Khat has anti fertility effect with possibility of complete sterility in higher dose treated groups. The possible mechanisms include decreased serum estradiol concentration and massive leukocyte infiltration in uterus stroma cells. Khat use should be discouraged in female population especially during pregnancy.

Abstract #16 (Session 3)

THE EFFECT OF ACUTE AND SUB-ACUTE EXPOSURE TO CRUDE KHAT (*CATHA EDULIS* F) EXTRACT ON LEARNING AND MEMORY IN RODENTS

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Background: Learning is a process of acquiring new information while memory is retention of the acquired information. The molecular mechanism of learning is due to the increased synaptic strength which is called long term potentiation. Khat (*Catha edulis* F.) is a dense evergreen shrub belonging to the family *Celastraceae*. Although comparative studies of amphetamine and khat on physiological and psychological behaviours are extensive, little is known about the effect of khat on learning and memory.

Objectives: The aim of this study was to evaluate the effect of acute and sub-acute exposure to crude khat (*Catha edulis* F.) extract on learning and memory in rodents.

Methods: Crude khat extract obtained using a mixture of chloroform and diethyl ether (1:3) was administered orally in doses of 100, 200, 300 mg/kg and the control group was administered with Tween 80 2% v/v in water as a single dose and repeatedly for fourteen days. Three protocols: Morris water maze (MWM), active avoidance, and multiple T-maze (MTM) tasks were used to study learning and memory. Parameters, including escape latency, time spent in the target quadrant, number of avoidances, escapes and nulls, number of wrong decisions, and latency to reach the goal box were determined.

Results: The results showed that acute and sub-acute administration of khat extract at the doses used did not have a significant effect in the three learning and memory paradigms.

Abstract #17 (Session 4)

PREVALENCE OF ALCOHOL USED RELATED DISORDERS & ITS ASSOCIATED FACTORS AMONG ADULTS ATTENDING PRIMARY HEALTH CARE CLINICS IN JIMMA TOWN

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Background: Despite a major concern among the public in Ethiopia about Alcohol Use-Related Disorders (AUDs) and use of Other Substances of Abuse (OSUDs), there is a paucity of information from on primary health care (PHC) setting attendees. The availability of information from such sources is important that helps early detection and intervention, for policy makers, health planners, and prevention and intervention programs.

Objectives: The objective of this study is to estimate the prevalence of AUDs and factors associated with them among adults attending PHC clinics at Jimma town to organize prevention and intervention programs using the scarce resources available.

Methods: A PHC-based cross-sectional study was conducted in three PHC clinics using a standardized WHO instrument-Alcohol Use Disorders Identification Test (AUDIT). The participants consisted of a total of 422 attendees aged 18+. Logistic regression analysis was used for controlling confounders.

Results: The prevalence of AUDs was 22.8%. On AUDIT scale 67% scored 8-15, 20% 16-19%, and 13% > 20. Income, being male, social anxiety, not visiting worship places and alcohol availability had independent association with AUDs.

Conclusion: Two-thirds comprised at risk group for AUDs needing health education, 33% needed counseling and the remaining group needed specialist treatment.

Abstract #18 (Session 4)

PREVALENCE OF COMMON MENTAL DISORDERS AND ASSOCIATED FACTORS AMONG ADULTS IN KOMBOLCHA TOWN, NORTHEAST ETHIOPIA

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Background: Mental illness is becoming an emerging issue in Ethiopia. In view of this, Ethiopian ministry of health formulated mental health strategic plan from 2012/13 to 2015/16. However, there is scarcity of information, especially from small towns, which assist policy maker's efforts in reforming mental health care.

Objectives: To assess the prevalence of common mental disorders and associated factors among adults in Kombolcha town, Northeast Ethiopia.

Methods: Community based cross sectional study was undertaken from March to April 2013. A total of 526 residents were selected using two-stage sampling technique. Self-reporting questionnaire (SRQ) was used to determine the prevalence of common mental disorders. Univariate, bivariate and multivariate analyses were considered.

Results: The prevalence of common mental disorders was found to be 32.4% (95% CI: 30.3-34.5%). Female sex (AOR=1.71 95% CI: 1.01-2.89), having small family size (AOR=2.93 95% CI: 1.37-6.25) and family history of mental illness (AOR=3.92 95% CI: 2.05-7.51) were significantly associated with common mental disorders. No or low formal education had been significantly associated with common mental disorders. Living with chronic illness (AOR= 2.61 95% CI: 1.45-4.68) and active smoking (AOR=5.99 95% CI: 2.45-14.68) were significantly associated with common mental disorders. Experiencing any stressful life event had been significantly associated with common mental disorders. High level of emotional support reduces the likelihood of common mental disorders by half.

Conclusion: This study demonstrated that common mental disorders are major public health problems. Female sex, low educational status, small family size, family history of mental illness, active smoking, living with chronic illness, lack of emotional support and experiencing any stressful life events are independent predictors. There is a need of common mental disorders program targeting women, smokers, and those with low educational status. Second stage assessment is also recommended to understand the overall burden of common mental disorders specifically.

Abstract #19 (Session 4)

PREVALENCE OF COMMON MENTAL DISORDERS ITS ASSOCIATED FACTORS DURING PREGNANCY IN SOUTHWEST ETHIOPIA: FINDING FROM JU-KRP PILOT STUDY

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Background: Several studies depicted common mental disorders have adverse pregnancy outcomes. However, the magnitude and risk factors of maternal common mental disorders during pregnancy is less known in Ethiopia.

Objectives: This study examines the magnitude of common mental disorders and its associated factors in pregnancy in southwest Ethiopia.

Methods: A cross-sectional study was conducted in Jimma Zone, south west Ethiopia. Six-hundred and forty-two pregnant women were from 11 health centers and one hospital was sampled. Probability proportional to size sampling (PPS) techniques and consecutive sampling technique was employed to get the study subjects until the desired sample size were collected. Self reporting questionnaire (SRQ_20) was used to measure mental distress. Descriptive and Inferential statistics were computed accordingly. All P values were two tailed and 95% CI and P value less than or equal to 0.05 were set for statistical significance.

Results: The prevalence of mental distress among pregnant women following ANC was found to be 144 (22.4%). The likelihood of pregnant women living in rural area reduces the chance of mental distress by 43% (COR 95% CI: 0.57 (0.38, 0.85)). The lower monthly income, the higher the odd of being distressed (COR 95% CI: 1.94 (1.12, 3.35)). There are also other factors such as intimate partner violence (AOR 95% CI: 10.1 (4.78, 21.57)), occupation (AOR 95% CI: 4.45 (1.79, 11.02)), marital status (AOR 95% CI: 0.26 (0.13, 0.53)), khat use (COR 95% CI: 1.65 (1.10, 2.47)), and family history (AOR 95% CI: 5.12 (2.38, 11.00)) that were associated with mental distress.

Conclusion: This study revealed there are factors associated with common mental disorders during pregnancy. Public health intervention designed in the specific area should take in to account improving socio economic status, prevention of intimate partner violence and promotion of ante natal care.

Abstract #20 (Session 4)

THE PHARMACOLOGICAL AND PSYCHOSOCIAL EFFECTS OF KHAT

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Background: The consumption of Khat has increased enormously in recent years, its use spreading well beyond the boundaries of its native regions of East Africa and the Arab peninsula. It followed the migrants from this part of the world to Europe and North America where its import was made illegal. The UK which allowed khat to be legally imported became the khat hub of Europe serving as a point of entry to the continent until recently when it was banned. Most of the research in the UK had been commissioned with the aim to ascertain whether khat use should be made illegal. In comparison to drugs of abuse such as cocaine and heroin, the impact of khat on health and any addiction potential have been considered relatively minor. The fact that its use is largely limited to certain ethnic minority groups and has not spread to the wider population contributed to the relative lack of interest.

Although the socioeconomic consequences of khat use have been researched to some extent its adverse health effects, including those on mental health, have received limited attention. High standard research such as randomized controlled trials is lacking mainly because of ethical and practical considerations. Nevertheless, the pharmacological actions of khat and its psychoactive constituents, the phenylalkylamines, cathinone and cathine, on the brain, in animals, are well researched. The findings are consistent in showing an increase in dopaminergic activity, in areas of the brain implicated both in psychotic illness such as schizophrenia and the mood disorders, depression and mania. Chronic khat use also showed serotonin reduction in animals and this may be associated with depression and aggression.

Objectives: The clinical evidence will be discussed in conjunction with the pharmacological research and current knowledge of the neurobiology of mental disorders, to make a case for the importance of recognizing the adverse effects of khat on human psychopathology.

Abstract #21 (Session 4)

A REVIEW OF PREVALENCE AND IMPACTS OF KHAT IN ETHIOPIA

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Background: Khat is an evergreen natural stimulant constituting cathine and cathinone, which have amphetamine like pharmaceutical effects on humans, except that cathinone is half-potent compared to amphetamine.

Objectives: This review was aimed to explore the prevalence of khat chewing, its health effects and to identify the most at risk populations of khat in Ethiopia.

Methods: The report was based on a review of both quantitative and qualitative studies which were concerned about the prevalence of khat, its effects and at risk groups. The articles were searched from Medline, PubMed, Google Scholar, the Cochrane review data base library and Google by combining MeSH terms such as "Khat", "Addiction", "Khat use", "Ethiopia", "Prevalence of Khat use", "the effects of khat", "mental health", and "mental illness". Some other articles were also obtained from Addis Ababa University department of Psychiatry.

Results: The current pooled prevalence of khat chewing in Ethiopia was 20% (95%, CI: 19%-21.1%) and the lifetime pooled prevalence was 28.3% (95%, CI: 26.8%-29.8%). Its adverse effects included cardiovascular complications, hypertension, obstetric complications, kidney problems, and intestinal complications like constipation though it might be confounded by pesticides. Khat chewing was also associated with increased absenteeism and unpunctuality of employees. Students, farmers and employees who were mainly at reproductive age were the most at risk population groups.

Conclusion: Appropriate fiscal policy measures are needed to protect the most at risk population groups without harming the farmers whose livelihood depends on khat.

Abstract #22 (Session 5)

ASSESSMENT OF WORK RELATED STRESS AND ASSOCIATED FACTORS AMONG NURSES WORKING IN PUBLIC HOSPITALS OF ADDIS ABABA, ETHIOPIA: A CROSS-SECTIONAL STUDY

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Background: Work related stress among nurses is a pattern of reactions occurring when they are presented with work demands not matched to their knowledge, skills or abilities, and challenges their ability to cope resulting in burnout, high turnover and poor patient care. Hence, this study would add a body of knowledge about the magnitude and associated factors of stress among nurses working in public hospitals of Addis Ababa, Ethiopia.

Objectives: The objective of this study was to assess prevalence and associated factors of work related stress among nurses working in public hospitals of Addis Ababa, Ethiopia.

Methods: An institution-based cross sectional study was conducted in public hospitals of Addis Ababa in 2012. A total of 343 nurses were included in the study. Ethical clearance was obtained from Institutional Review Board of the University of Gonder and Amanuel Mental Specialized Hospital. Informed consent was obtained ensuring privacy and confidentiality throughout the data collection process. Data were collected by pre-tested and self-administered questionnaires using nursing stress scale. Data were coded, entered, and analyzed using EPI INFO 3.51 and SPSS version 20 software packages. Univariate, bivariate, and multivariate analyses were conducted.

Results: A total of 320 nurses were participated, yielding a response rate of 93%. Mean age was 31 years \pm 8.9 years. One hundred twenty one (37.8%) nurses were stressed. Significant associations were found between nurses' stress and gender (AOR=2.47, 95% CI (1.28, 4.77)), work shift (AOR=5.719, 95% CI (2.54, 12.9)) and illness (AOR=3.09, 95% CI (1.21, 7.89)). There were also significant associations between stress and marital status and work site/unit of the nurses.

Conclusion: Prevalence of work related stress was high. About one in four nurses working in public hospitals were stressed in their work places. For nurses to perform their jobs safely and proficiently, all stake holders should design stress reduction and management programs.

Abstract #23 (Session 5)

KHAT AND EMOTION REGULATION: CROSS-SECTIONAL AND PILOT STUDIES IN YEMEN AND GERMANY

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Background: Chewing khat acutely elicits states of euphoria and feelings of well-being which later shift into emotional instability and low mood. Little is known about emotional regulation in habitual khat chewers. In a KRP-study on khat chewers in Yemen we found regular khat chewing being associated with higher trait anger, more pronounced negative responses during stress and less pronounced positive emotional states.

Objectives: In a recent study we investigated whether similar effects could be found in khat chewing migrants from East African countries living in Germany.

Methods: Ninety participants from countries with a khat chewing tradition were interviewed about their consume behavior, anger disposition and acculturation strategy.

Results: As expected, users who reported khat consumption during the week before data collection scored higher on trait anger ratings than those without khat use the week before. Contrary to our expectations however, migrants reporting a stronger orientation toward their culture of origin reported less khat consumption. No differences in khat consume was found between the several East African ethnic groups and between men and women.

Conclusions: These studies show that similar emotion related response patterns can be found in migrant khat chewers as in khat chewers living in their home countries. Therefore, khat chewing related emotional dispositions can also be studied in migrant populations in countries where khat consumption is traditionally not anchored.

Abstract #24 (Session 5)

CONCURRENT TOBACCO AND KHAT USE IS ASSOCIATED WITH DYSREGULATED CARDIOVASCULAR STRESS RESPONSE AND ENHANCED NEGATIVE MOOD

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Background: Khat (*Catha edulis*), an amphetamine-like plant, is widely used in East Africa and the Arabian Peninsula, and is becoming a growing problem in other parts of the world. The concurrent use of tobacco and khat is highly prevalent and represents a public health challenge.

Objectives: We examined for the first time associations of the concurrent use of tobacco and khat with psychophysiological responses to acute stress in two sites in Yemen.

Methods: Participants (N=308; 135 women) included three groups: users of khat and tobacco, users of khat alone, and a control group (nonsmokers/nonusers of khat). These individuals completed a laboratory session in which blood pressures (BP), heart rate (HR), and mood measures were assessed during rest and in response to acute stress.

Results: Concurrent use of khat and tobacco was associated with attenuated systolic BP, diastolic BP, and HR responses to laboratory stress ($p < .05$) and with increased negative affect relative to the control group ($p < .05$).

Conclusions: Results demonstrated blunted cardiovascular responses to stress and enhanced negative effect in concurrent khat and tobacco users. These findings extend previous studies with other substances, and suggest that adverse effects of khat use may lie in its association with the use of tobacco.

Abstract #25 (Session 6)

MAJOR PSYCHOLOGICAL AND SOCIAL PROBLEMS OF KHAT CHEWING RELATED TO THE LEVEL OF DEPENDENCY ON KHAT AMONG BAHIR-DAR UNIVERSITY STUDENTS

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Background: The earlier studies conducted in khat related to its influence on psychological and social constructs of individuals found mixed results. In contrast to its side effect, some findings magnify it as a drug which is said to induce euphoria and excitement.

Objectives: The main objective of this study was to assess the levels of anxiety, depression and social-skill among undergraduate students of Bahir-Dar University who have an experience of khat chewing.

Methods; One-hundred and fifty-four (112 khat users and 42 non-khat users) study participants were selected using snowball sampling technique. The levels of anxiety and depression were assessed using 25 items of depression symptoms inventory, and the level of social-skill was assessed using 24 items of social avoidance and distress scale. In addition, other relevant data were obtained using focus group discussion and interview guides. Then, analysis was made using descriptive and inferential statistics.

Results: The study revealed that 33% and 67% of khat users were categorized as dependent khat users and non-dependent khat users respectively. Statistically significant difference was found in the levels of anxiety ($P < 0.01$) and depression ($P < 0.05$) between dependent khat users, non-dependent khat users and non-khat users. However, statistically significant variation was not found on the level of social-skill among the three groups ($P > 0.05$). Severity of dependency on khat was significantly positively related to anxiety ($P < 0.01$) and depression ($P < 0.01$) and, significantly inversely linked with social-skill ($P < 0.05$). Besides, amount of khat consumed and number of additional drug being used were significant predictors of depression, and anxiety respectively.

Conclusion: It was concluded that it is not becoming a khat user, but developing dependency on khat is associated with anxiety and depression.

Abstract #26 (Session 6)

ALCOHOL USE DISORDERS AND ASSOCIATED FACTORS AMONG PEOPLE LIVING WITH HIV WHO ARE ATTENDING SERVICES IN SOUTH WEST ETHIOPIA

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Background: Alcohol use disorders (AUDs) in persons living with human immunodeficiency virus (PLHIV) in high-income countries have been associated with poor adherence to antiretroviral medications and worse HIV-related outcomes. Little is known about AUDs among people attending HIV services in sub-Saharan Africa.

Objectives: To assess the prevalence of AUDs and associated factors among PLHIV in contact with HIV services in a hospital in south west Ethiopia

Methods: A cross-sectional study was carried out among PLHIV who attended HIV services at Jimma University Specialized Hospital in September 2012. The World Health Organization's Alcohol Use Disorders Identification Tool (AUDIT) was used to measure probable hazardous, harmful and dependent use of alcohol ('alcohol use disorders'). Associations between AUDs and other variables were explored using logistic regression analysis. All variables associated with AUDs with a p value < 0.25 were included in the final multivariable model.

Results: The overall prevalence of AUDs was 32.6%, with hazardous use, harmful use and alcohol dependence accounting for 24.7%, 2.8% and 5.1% of the total, respectively. There was no significant difference in the prevalence of AUDs in persons receiving antiretroviral treatment compared to those who were antiretroviral therapy naïve (32.6% vs. 38.6%). AUDs were identified in 26.0% and 44.1% of females and males, respectively. Male gender, age between 45 to 54 years, smoking cigarettes and psychological distress were associated independently with AUDs.

Conclusion: The high prevalence of AUDs detected in our facility-based survey of PLHIV in Ethiopia highlights the need to integrate delivery of effective and feasible interventions for AUDs into HIV care.

Abstract #27 (Session 6)

PSYCHOTIC SYMPTOMS AND KHAT USE IN SOMALI REFUGEES IN NAIROBI

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Background: The leaves of the khat tree (*Catha edulis*) are traditionally chewed in African and Arab countries and contain the amphetamine-like alkaloid cathinone.

Objectives: Excessive khat use has been associated with the development of psychotic symptoms. In a pilot study in Kenya we investigated the quality of psychotic symptoms among khat using Somali refugees living in Nairobi.

Methods: We assessed psychotic symptoms in a group of male Somali khat chewers (33) fulfilling the DSM-IV criteria for khat dependence and comparable non-chewers (15) of the same age. The psychotic symptoms were assessed by items from the Composite International Diagnostic Interview. For each psychotic symptom, we distinguished whether it occurred only under acute khat influence or without relation to khat use.

Results: The khat use patterns of the studied chewer group varied from moderate to excessive. The non-chewers reported no psychotic symptoms. 52% (N=12) of the khat chewers reported khat-related psychotic symptoms and 24% (N=5) reported true psychotic symptoms. Binge khat users (N=11) chewed khat for more than 24 hours in a row last week and reported the highest levels psychopathology. Feelings of being followed or spied on and unusual feelings on skin or body were the most frequent khat-related psychotic symptoms. Acoustic hallucinations were the most frequent true psychotic symptoms.

Conclusion: We found evidence for an association between excessive khat use and psychotic symptoms among Somali refugees. The quality of khat-related psychotic symptoms did not differ from true psychotic symptoms. Findings need to be replicated with a representative sample. Somali refugees are highly burdened by psychopathology and adequate community-based treatments need to be developed.

Abstract #28 (Session 6)

INFLUENCES OF CHRONIC USE OF TOBACCO AND KHAT (*CATHA EDULIS*) ON SUBJECTIVE SLEEP QUALITY

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Background: Identifying determinants associated with habitual substance abuse is useful in reducing its harm and minimizing its economic and health care burdens. Khat (*Catha edulis*) is a substance widely used in East African and Middle Eastern countries as well as in immigrant communities in Europe. Khat is often accompanied by smoking.

Objectives: While sleep disturbance has been shown to be linked with khat and tobacco use, respectively, no systematic attempt has been made to test this hypothesis in concurrent users of khat and tobacco. The purpose of this study was to examine whether concurrent use of khat and tobacco was associated with subjective sleep quality.

Methods: We used the Arabic version of the Pittsburgh Sleep Quality Index (PSQI), and conducted a cross-sectional study examining subjective sleep quality in 151 (74 female) concurrent users of tobacco and khat, 141 (76 female) khat-only users, and 92 (52 female) nonusers to khat and tobacco in Yemen. Measures on subjective mood were also collected. A series of ANOVAs and chi-square tests were conducted to test whether tobacco and khat use were linked with sleep disturbances.

Results: The results indicated that concurrent users and khat-only users showed greater sleep disturbances than nonusers as assessed by the PSQI global scores ($p < .001$). Similar group differences were found in PSQI component scores such as sleep quality, sleep disturbances, daytime dysfunction. The PSQI global scores as well as component scores were correlated with negative and positive mood ($p < .004$). In addition, there were trends of positive associations of the global PSQI scores with reported days of khat use per week and number of cigarettes smoked per day ($p = .05$).

Conclusions: These results suggest that tobacco and khat use are associated with deterioration in subjective sleep quality.

Abstract #29 (Session 6)

COMMON MENTAL DISORDER SYMPTOMS AMONG PATIENTS WITH MALARIA IN PRIMARY HEALTH CARE IN ETHIOPIA: A CROSS-SECTIONAL SURVEY

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Background: Common Mental Disorders (CMDs; symptoms of depression, anxiety and/or somatization) are frequent among patients attending primary healthcare services. Increasingly it is appreciated that undetected CMD symptoms, including somatic symptoms are strongly associated with disability and illness outcome in people with confirmed physical health conditions, but most evidence to date applies to people with chronic physical disorders. Inflammatory processes associated with acute infection may directly cause mental state changes with implications for management. We explored whether there was a difference in the levels of CMD between patients with a clinical diagnosis of malaria and those with confirmed diagnosis of malaria at primary healthcare level.

Methods: A cross-sectional comparative study was conducted on 300 adults who were diagnosed and treated for malaria from October to February 2009. The participants were recruited consecutively from two primary care centers in Jimma, south-western Ethiopia. For every one case of 'malaria' with negative thick film, two cases of malaria with positive thick film were recruited. The 20 item Self-Reporting Questionnaire (SRQ-20) was used to measure CMD. Face-to-face interviews were conducted using a structured questionnaire by clinical nurses working at the respective primary care centers. Non-parametric Wilcoxon rank-sum test was used to explore the association between thick film result and CMD, and multiple logistic regressions was used to control for confounding.

Results: Participants had a mean age of 28.2 (S.D = 10.9) years and majority of them (57.3%) were women. The prevalence of high CMD symptoms was 24.5% (n=69). Suicidal ideation was reported by 13.8% of the participants (n=40). None of the participants were given a psychiatric diagnosis by the primary health care workers. There was significantly higher level of CMD in patients who had taken medication prior to visiting the health centre ($z=-2.520$; $p=0.0117$) and in those whose symptoms had been present for seven days or more ($z=-2.043$; $p=0.0411$). There was no association between SRQ score and sex ($z=0.1485$; $p=0.1375$) and literacy level ($z=-1.668$; $p=0.0950$). There was no statistically significant association between level of CMD symptoms and having a negative thick film result (OR 0.98; 95% CI 0.92, 1.04) or objective presence of fever (OR 1.04; 95% CI 0.93, 1.15).

Conclusions: A quarter of patients diagnosed to have malaria at primary care report high level of symptoms suggestive of CMDs irrespective of their thick film result. The high levels of cognitive symptoms of CMD, including suicidal ideation, among people with diagnosis of malaria at primary care calls for further studies to investigate for the possibility of persistence and progression of these symptoms

Abstract #30 (Session 7)

PERCEIVED STIGMA AMONG CAREGIVERS/ FAMILIES OF PERSONS WITH SEVERE MENTAL ILLNESS IN JIMMA CITY, ETHIOPIA

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Background: Stigma associated with mental illness has a psychosocial consequence which causes indescribable suffering to those who are stigmatized. Family members are exposed to the stigma and discrimination associated with mental illness. This study was aimed to gain better understanding of perceived stigma of family members/caregivers and to develop stigma reduction strategies and interventions.

Objectives: This study aims to assess the magnitude and to identify factors associated with perceived stigma among family members/caregivers of persons with severe mental illness in Jimma city, Ethiopia.

Methods: A cross-sectional study was conducted using a structured questionnaire with a face to face interview from 20, September 2012 to 20, October 2012. Family interview schedule, stigma part, instrument was used to assess perceived stigma. A total of 289 family members of individuals who were diagnosed to have severe mental illness were recruited using consecutive sampling technique. The data were entered, cleaned and analyzed using SPSS version 16.0.

Results: All of the family members had perceived some sort of stigma evidenced by positive answer to at least one from 14 stigma items. The most frequently endorsed item was having felt grief or depression (96.5 %). The mean stigma score was 17.8 ± 6.9 and majority of the respondents (54.7%) had high stigma score above the mean. Over 16% of the respondents attributed mental illness to substance abuse. The main coping mechanism to deal with the patients' illness difficulties was seeing health professionals (75.7%). Family members who were spouse to the patient and duration of illness less than 10 years were associated with higher stigma. But patients who had verbal/physical violent behavior towards family members and other people at the time of the illness were associated with low stigma.

Conclusion: Stigma was found to be a common problem among family members of persons with severe mental illness with few differences among socio-demographic characteristics and the type of severe mental illnesses.

Abstract #31 (Session 7)

PERCEIVED STIGMA AND ASSOCIATED FACTORS AMONG CARE GIVERS OF SCHIZOPHRENIC PATIENTS ATTENDING AMANUEL MENTAL SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA

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Background: Stigma is typically a social process, experienced or anticipated and characterized by exclusion, rejection and blame or devaluation about a person or a group. Schizophrenia, in particular, because of its distinctive symptoms, disruptive behavior and perceived dangerousness, is a target for stigma and discrimination. It is families who primarily seek help for symptomatic family members. If families do not seek help because of stigma, young people are at risk for longer durations of untreated illness, especially of psychosis, which is associated with worse long term outcome. No study has assessed the prevalence and associated factors of schizophrenia patient care giver in this study setting.

Objectives: To assess the prevalence of perceived stigma and associated factors among care givers of schizophrenic patients attending Amanuel mental specialized hospital, Addis Ababa, Ethiopia.

Methods: An institution based Cross-sectional study was conducted to assess prevalence and factors associated with perceived stigma among 412 care givers of schizophrenia patients attending outpatient department of Amanuel mental specialized hospital from May 6 - 31 , 2013. The data were collected using standardized and structured pre-tested questionnaire. Participants were selected by systematic sampling techniques. Bivariate and multivariate logistic regression models were used to assess the association between outcome and explanatory variables.

Results: Four-hundred and twelve respondents were participated in the study making a response rate of 97.4%. The study showed that the prevalence of perceived stigma was found to be 92% by using FIS. The factors never married [AOR=4.55; 95% CI: 1.98-10.43], rural residence [AOR=4.38; 95% CI: 1.65-11.58], care giver who was spouse/partner [AOR=7.01; 95% CI: 1.78-27.56] and >1 years duration of illness of the patient [AOR=3.31; 95% CI: 1.30- 8.44] were found to be significantly associated with perceived stigma of schizophrenia patient care givers.

Conclusion: Prevalence of perceived stigma was found to be higher among current study participants. The factors associated with care givers perceived stigma were never married, rural residency, duration of illness of the patient and care giver patient relationship. Therefore stigma focused interventions, like groups work on anti-stigma activities should be mobilized by FMOH.

Abstract #32 (Session 7)

PREVALENCE AND FACTORS ASSOCIATED WITH PERCEIVED STIGMA AMONG PATIENTS WITH EPILEPSY AT AMANUEL MENTAL SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA

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Background: Epilepsy stigma is considered to be one of the most important factors that have a negative influence on people with epilepsy. Among all types of stigma perceived stigma further exerts stress and restricts normal participation in society. There are limited researches conducted on the prevalence of perceived stigma among patients with epilepsy in developing countries including Ethiopia.

Objectives: The aim of this study was to assess the prevalence of perceived stigma and its association with socio-demographic and other factors among patients with epilepsy treated at Amanuel Mental Specialized Hospital.

Methods: Hospital based cross-sectional quantitative study was conducted from May 1, 2013 to May 30, 2013 G.C. All patients with epilepsy in Ethiopia were source population. Patients with epilepsy treated from neuropsychiatric case team at Amanuel Mental Specialized Hospital during study time were the study population. The sample size were determined using single proportion formula and found to be 347 considering 5% none response rate. The 347 subjects were selected by using systematic random sampling methods among patients who had been on follow up for epilepsy case at neuropsychiatry case teams.

Results: A total of 346 participants with mean age of 29.3 (SD=8.5) participated with a response rate of 99.7%. The prevalence of perceived stigma was 31.2%. Age range between 18-24 [AOR=2.84, 95% CI: 1.02, 7.92] and 35-44 years [AOR= 4.04, 95% CI: 1.34, 12.13], difficulty to attend follow up because of stigma [AOR=3.15, 95% CI: 1.19, 8.34], seizure related injury [AOR= 1.88, 95% CI: 1.12, 3.15], and contagion belief [AOR= 1.88, 95% CI: 1.10, 5.08] were significantly associated with perceived stigma.

Conclusion: Perceived stigma was found to be a common problem among patients suffering from epilepsy. The results reinforce the need for creating awareness among patients with epilepsy and addressing misconceptions attached to it.

Abstract #33 (Session 8)

EFFECTIVENESS OF EXISTENTIAL GROUP THERAPY IN TREATING PSYCHOLOGICAL PROBLEMS OF CERVICAL CANCER PATIENTS IN CANCER CARE ETHIOPIA

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Introduction: Cervical cancer is the most common malignancy among women in developing countries. Very little formal psychological support, such as group or individual therapy, is available to cancer patients in developing countries, although evidence from developed-country settings has shown that it can be an important aspect of cancer care. Psychological support has been found to reduce distress and show beneficial effects on anxiety and depression among patients with cancer.

Objectives: This study examined the effectiveness of existential group therapy in treating psychological problems of cervical cancer patients in Cancer Care Ethiopia.

Methods: The study was a non-equivalent control group pretest-posttest of a quasi-experimental design. Thirty research participants were selected purposefully based on inclusion criteria. They were divided into two groups (psychotherapeutic group and control group). Three standard scales namely, Beck Depression Inventory II, Beck Anxiety Inventory and Rosenberg Self-Esteem scale were used to measure the dependent variables at two occasions; pre-test and post-test then research participants in the psychotherapeutic group received existential group therapy for nine sessions; three sessions per week for ninety minutes of each session.

Results: Result of dependent t-test illustrated that, after treatment, research participants engaged in psychotherapeutic group showed statistically significant reduction in the level of depression ($t_{14}=2.60, P<.05$) and anxiety ($t_{14}=2.564, P<.05$) compare to the control group. Independent t-test indicated that there was no statistically significant difference between the psychotherapeutic and control group in level of self-esteem during pre-test ($t_{28}=.091, P>.025$) and during post-test ($t_{28}=.388, P>.025$), respectively.

Conclusions: The treatment/psychotherapeutic group showed a statistical significant reduction in the level of depression from pre-test to post-test, after the completion of existential group therapy; however this was not found in the control group. Psychotherapeutic group had a statistically significant reduction in the level of anxiety from pre-test to post-test while the control group didn't show a statistically significant reduction in anxiety levels during this period. There was no statistically significant improvement in both level of self-esteem scores between the pre-test to post-test.

Abstract #34 (Session 8)

PSYCHOLOGICAL TREATMENT OF KHAT ABUSE AND DEPENDENCE: A PILOT STUDY IN NAIROBI

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Background: Medical research has associated khat misuse to manifold somatic and psychological problems. Khat chewers can develop the substance dependence according to the definition of DSM. However, to date no study ever addressed psychological intervention methods to treat khat use disorders.

Objectives: We describe and discuss here a series of pilot studies planned to take place in Nairobi in order to test the feasibility and adequacy of adapted psychological intervention techniques for khat users from a traditional khat use country.

Methods: In a first study, we will screen for khat users in a population-based survey. Based on the assessment of amount of recent khat use and of the criteria for dependence we will apply a stepped approach: Moderate users will be given a brief intervention while severe users fulfilling dependence criteria will be invited to take part in a more intense treatment based on cognitive behavioral techniques modified to meet cultural background.

In the preparation phase of the study and based on feedback during the implementation phase of the intervention, we will continuously modify the treatment tools in order to better meet cultural and khat-specific requirements. The next step in the future will be the evaluation of the developed treatment tools in an RCT.

CHALLENGES OF SUBSTANCE ABUSE PREVENTION AND INTERVENTION EFFORTS IN BOTSWANA

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Background: At independence in 1966, Botswana was one of the poorest countries in Africa; boasting of nothing else but a single railway line from Ramakgwebana in the north to Ramatlabama in the south. Since then, Botswana has become a shining example of democracy with significant developments in many different areas including education, health, and mining, to mention a few. Consequently, from very humble beginnings at independence, the country has become one of the world's fastest growing economies and has since been upgraded from a low economy to an upper- middle class economy. The country's pristine economic picture has not been free of challenges. With a small population of only two million people, Botswana has experienced and continues to experience some major challenges such as high rates of unemployment which, according to the Botswana Core Welfare Indicators Survey (2009/10) stands at 17.8%, mostly affecting the youth. Also among the highest in the world are HIV and AIDS prevalence rates, reported at 17.1% (Baakile, 2012) and substance abuse. However, substance abuse remains a major concern because of its implications to the other challenges, particularly HIV and AIDS and the fact that substance abuse treatment programs are virtually nonexistent in the country. Although a lack of rehabilitative opportunities for substance abuse represents the most important shortcoming in the range of substance management strategies in Botswana, it is worth noting that the government has crafted strategies and policies regarding substance abuse, though seemingly with much focus on alcohol, despite mounting evidence showing the prevalence of illicit drug use among Batswana.

Objectives: The main objective of this paper is to review and evaluate prevention and intervention strategies that the Botswana government has put in place and to provide recommendations for future research, policy, and intervention formulation.

RECENT SOCIAL AND HEALTH INSURANCE REFORMS IN ETHIOPIA AND THE IMPLICATIONS FOR MENTAL HEALTH

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Background: After more than half century immobility, Ethiopia has introduced a couple of reforms to its social security system in the last three years. The main reforms are the introduction of two new schemes (social health insurance and community based health insurance) and expansion of social pension coverage to private organization employees. Combined these reforms are altering the landscape of social and health security/insurance system in the country and suggest the direction of social and health protection approach the Ethiopian state wants to pursue. One important aspect of providing effective support and health care is a thorough understanding of the social and health insurance system in the country. However, the focus in the literature so far has largely been on one or another aspect of these reforms and a comprehensive discussion of the social and health insurance provisions from a systematic perspective is missing.

Objectives: The purpose of this paper is twofold. The first purpose is to discuss the main political motives of these reforms as different components of one system and to contextualize them in global and national social and health policy making debates. To do so, the paper begins with a review of the history of social security/insurance in the last three regimes of Ethiopia and moves to map the main features of the current social and health insurance system in the country along with the various models of insurance schemes (social insurance versus social assistance model, pay- as-you go versus funded scheme, defined benefit versus defined contribution and public versus private administration). Drawing on the ongoing studies on these new schemes and policy documents, the paper also describes the coverage, design, available types, conditions and amounts of benefit under the current social and health insurance system. It then demonstrates how all of these schemes are varieties of the same system of social security/protection by the Ethiopian state and share many similar features (therefore should be viewed as different varieties of one policy). The second purpose of the paper is to discuss the implications of these reforms to mental health. For this purpose, the second part of the paper highlights the implications of these reforms to mental health care and support to propose, as it stands, the current social and health insurance system is insensitive to mental health. The paper identifies the limited coverage and systematic exclusion of mental health care and support from benefits as the main issues that need the attention of mental health advocates and policy makers.

Abstract #37 (Session 8)

YOUTH PEER EDUCATION FOR PREVENTION AND CONTROL OF SUBSTANCE ABUSE: SARC EXPERIENCE IN JAZAN, SAUDI ARABIA

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Background: Substance abuse and Khat chewing are of major concern in Kingdom of Saudi Arabia (KSA) especially in Jazan region. Prevention and control activities are led by the National Committee for Narcotic Control utilizing different strategies. Substance Abuse Research Center (SARC) at Jazan University developed a unique community based project for prevention and control of this problem using peer education strategy. Peer education strategy is based on different health education and promotion theories and used successfully in addressing sensitive health topics like HIV/AIDS and STDS.

Objectives: To (1) share and reflect on the planning process experience of SARC Peer Education project; and (2) discuss the results of the pilot phase.

Methods: This project is a community-based initiative, developed using participatory approach, partnership development and stakeholder engagement in the planning, implementation, monitoring and evaluation steps.

Results: Training of Trainer (TOT) manual for peer education about substance abuse was developed. In the first year five training and planning workshops were conducted for 64 male teachers, 30 female teachers, and 32 male and female university students. At schools level out of those trained teachers 17 have implemented educational activities reaching directly 3728 person, developing and distributing 2568 leaflet within two months. The topics of education per session include Khat (31%), Tobacco (24%), Narcotics (24%), and more than one topic (21%). Students and teachers work together and develop unique, innovative approached and messages to their peers. Field activities were implemented, financed and reported by Education sector, while SARC provide only technical support.

Conclusion: Engaging stakeholders early in the project has developed a sense of ownership and commitment reflected by providing resources for activities. Through partnership the project implementation was facilitated, reaching more people and covering wider geographical area. The development and implementation of peer education program for prevention and control of substance abuse is feasible and cost effective.

Abstract #38 (Session 8)

ETHIOPIA'S MINISTRY OF HEALTH'S NATIONAL MENTAL HEALTH STRATEGY AND ITS IMPLICATION FOR THE DEVELOPMENT OF A GUIDELINE FOR SUBSTANCE MISUSE: CHALLENGES AND OPPORTUNITIES

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Background: The development of a National Mental Health Strategy (Strategy) by the Ministry of Health's (MOH) represents MOH's commitment to address Ethiopia's needs for accessible, effective, sustainable, and affordable mental health services. MOH recognizes the significant contribution of mental health towards the well-being and functioning of an individual. Like any other health condition, persons suffering from mental illness and/or substance abuse should be able to access care that promotes their timely recovery, at the same time as promoting social inclusion and countering stigma, discrimination and human rights abuses. It is with these fundamental precepts in mind that this Strategy was developed. The Strategy is consistent with the FMOH's overall national health policy regarding the delivery of preventive, rehabilitative and curative care.

Objectives: The presentation will discuss on the challenges and opportunities regarding the social, budgetary and programmatic implications on the integration of substance misuse services in the existing health delivery system.

Abstract #39 (Poster)

PERCEIVED CAUSES OF MENTAL HEALTH PROBLEMS AND HELP-SEEKING BEHAVIOR AMONG UNIVERSITY STUDENTS

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Background: Mental health is an integral component of total health; however, it is given less attention by researchers, practitioners and policy makers compared to other health domains. Most undergraduate university students in Ethiopia are at the stage of adolescence and early adulthood. Researchers indicated that the impact of a mental health problem can be profound during adolescence and young adulthood in particular. During this stage of development, even a relatively mild mental health problem can cause social, emotional, or cognitive changes that in turn disrupt educational and vocational achievements that have a major effect on later adult life. To mitigate the negative impact of mental health problems on university students, different universities internationally have established counseling centers. Haramaya University has recently established such a center.

Objectives: The objectives of the study were to examine perceived prevalence and causes of mental health problems and professional help-seeking behavior among Haramaya university undergraduate students.

Methods: The study employed cross-sectional survey design. Three-hundred and seventy third-year (senior) students across four colleges participated in the study. While random sampling was employed to select the participants and the colleges, purposive sampling was used to select the year-level. Percentages, t-test, correlation, Chi-square, and multivariate analysis of variance were conducted.

Results: The results revealed that the majority of the participants were able to recognize major mental health problems such as schizophrenia and major depressive disorder, while few considered generalized anxiety disorder as mental health problem. Most participants considered substance/drug abuse as the most prevalent health problem of university students followed by HIV/AIDS. Small number of students considered mental health as prevalent health problem of university students. They attributed mental health problems to psychosocial and biomedical factors and most of the participants had positive attitudes toward seeking professional psychological help.

Conclusion: Most of the participants did not recognize minor mood and anxiety disorders as being mental health problems. This notion might hinder students' help-seeking behavior. Therefore, the guidance and counseling center might well seek to improve mental health literacy of university students, with a view to helping them recognize similar problems and their effects, and to seeking help towards improved functioning.

Abstract #40 (Poster)

DETERMINANTS OF Khat CHEWING AND ITS IMPACT ON MENTAL HEALTH AMONG YOUTH AND ADULTS OF DESSIE TOWN ,NORTH EASTERN ETHIOPIA

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Background: Many individuals use psychoactive drugs for the perceived personal improvement of mood, to escape or relieve psychic distress, or as a part of a dependency process. Khat is one of the psychoactive natural stimulant substances from the *Catha edulis* plant which has psychological, medical, social, and economic effects on human being.

Objectives: The study was aimed to explore determinants of khat chewing and to assess the impacts of khat chewing on mental health problems.

Methods: This study was conducted in 329 participants of Dessie town youth and adult khat chewers using standardized instruments from 1 to 20 of July, 2012. FGDs and Interview with mental health professionals was held to supplement the quantitative data.

Results: To spend leisure time (43%), chewing friends (21%) and chewing family (5%) were risk factors to start chewing. 4.4% of participants have severe anxiety while 9.1 % have also severe depression symptoms scores. Moreover, 60.6 % have severe psychosis symptoms while half percent of sample are dependent of chewing. Statistically significant difference was found on marital status of chewers on score of SDS ($F(3,316)=3.969, p<0.05$). There is difference on whether using substance or not during chewing on anxiety score ($t(318)=-2.96, p<0.05$), psychosis score ($t(318)=-2.482, p<0.05$) and on score of SDS on khat ($t(318)=4.618, p<0.01$) while insignificant on depression level ($t(318)=0.548, p>0.05$). Amongst different means of controlling after effect of chewing (chebsi), those who took alcohol score high in anxiety ($F(3,316)=3.075, P<0.01$) and on scores SDS ($F(3,316)=3.799, p<0.05$). Lastly, walking and bath, and taking alcohol are related to non-Insomniac symptoms ($X^2(3)=29.490, p<0.05$).

Conclusions: Chewers who use other substances during chewing session have high rate of khat related mental illness. Taking alcohol and enjoying night club after chewing found to be risk factor to khat related mental illness. Educating the community about the risk and consequence of khat use is recommended. Mental health professionals should consider whether patients were chewing or not, and treat accordingly.

Abstract #41 (Poster)

DETECTION OF SMOKING PROFILE AND TOBACCO DEPENDENCE IN PSYCHIATRIC PATIENTS

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Background: Drug and tobacco dependence represents some of the distinguished features recognized in medical and psychiatric practice. This study was conducted to investigate smoking profile and tobacco dependence in psychiatric patients.

Objectives: Psychiatric study of this area related to drug dependence in general and nicotine dependence in particular can help recognizing pattern of smoking on psychiatric patients who are involved in it. The aim of this study is to understand implications of smoking on psychiatric patients. Such information about smoking in relation to psychiatry should be taken into consideration when planning for smoking cessation strategies.

Methods: A random sample of 420 cases attended in a private psychiatric center in Alexandria over one month was the subject of this study. The information was obtained by a data sheet, and a 15 - item American questionnaire was applied after being translated and standardized.

Results: Results showed that more than 80% of male patients and 50% of female patients were smokers; these figures are almost double the rate of smoking as estimated in general population. Application of the questionnaire showed that the great majority of the smokers in the sample (75%) had a score indicative of tobacco dependence. Commitment of smokers among psychiatric patients of the sample to smoking and their concerns and beliefs about quitting were assessed.

Conclusions: In conclusion, the information and data of this study confirmed the higher prevalence and specific profile of smoking in psychiatric patients when compared to others. Reviewing the results of this study and understanding of smoking behavior in patients could be taken in context of the relationship between smoking and psychiatry. Recommendations included the need for more studies of this area of smoking in psychiatric patients for evaluation of the magnitude and nature of this problem.

Abstract #42 (Poster)

PREVALENCE AND ASSOCIATED FACTORS OF COMMON MENTAL DISORDERS AMONG PATIENTS ADMITTED IN GONDAR UNIVERSITY HOSPITAL, NORTHWEST ETHIOPIA.

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Background: Mental disorder is a psychological pattern or anomaly potentially reflected in behavior that is generally associated with distress or disability, and is not considered part of normal development of a person's culture. Common mental disorders are a group of distress states manifesting with anxiety, depressive and unexplained somatic symptoms typically encountered in community and health care settings.

Methods: A cross-sectional study was conducted in Gondar university hospital from April 15-May 15, 2013. We interviewed 418 hospital admitted patients: 263 patients from medical ward and 155 from surgical ward with Systematic Random sampling. Common mental disorder was assessed through face-to-face interviews by trained clinical nurses using SRQ-25. SRQ contains items associated with anxiety, depression and somatic symptoms. Data on socio-demographic variables, alcohol and tobacco use, and some risk factors for common mental disorder were assessed.

Results: Using a cut-off point ≥ 8 , 58.6% of admitted patients had symptoms of common mental disorder. In multivariate analysis individuals who had previous hospital admission with [AOR=1.7, 95% CI (1.11, 2.73)], being female [AOR=2, 95% CI (1.26, 3.12)] were more likely to have common mental disorders than those who have no previous hospital admission and males. Widowed [AOR=2.8, 95% CI (1.1, 7.20)], lifetime tobacco use [AOR=4, 95% CI (1.1, 15.28)], lifetime alcohol use [AOR=3, 95% CI (1.82, 4.69)], hospital stays one to two weeks [AOR=2.3, 95% CI (1.4, 3.8)], three to four weeks [AOR=2, 95% CI (1.18, 3.93)] were more likely to have common mental disorders than those who are single, no tobacco and alcohol use, hospital stays less than a week, respectively. Patients learned to primary school [AOR=0.5, 95% CI (0.26, 0.93)], learned to secondary school [AOR=0.4, 95% CI (0.26, 0.85)] were less likely to have common mental disorders than those who are unable to read and write.

Conclusion: The prevalence of common mental disorders on the general medical and surgical wards is highly prevalent and not recognized by health workers on these wards contrary to their common occurrence. Ministry of health should develop guidelines to screen and treat common mental disorders among hospital admitted patients. Emphasis on individual who are females, widowed, previous hospital admission, illiterate, substance users and concerning on length of hospital stays.

Abstract #43 (Poster)

COMPARATIVE STUDY ON PREVALENCE, RISK FACTORS AND COPING MECHANISM OF DEPRESSION AMONG INSTITUTIONALIZED AND NON-INSTITUTIONALIZED ELDERLY: IN THE CASE OF OROMIA REGION NORTH SHEWA

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Background: The main purpose of this study was to assess and compare the prevalence, risk factors and coping mechanisms of depression among institutionalized and non-institutionalized elders in Fitcha town and Fitcha elderly rehabilitation center.

Objectives: The study mainly attempted to answer research questions such as the prevalence of depression among institutionalized and non-institutionalized elders, risk factors of depression, coping mechanism of depression and gender difference in depression. The significance of the study is aimed to increase the public's mental health literacy by recommending effective strategies to increase awareness about depression in elders.

Methods: In order to achieve the stated objectives, mixed research design particularly concurrent or triangulation approach was used. For this reason, questionnaire, and an in depth interview were used to collect qualitative and quantitative data from a random sample of 384 elderly. To analyze the quantitative data, descriptive statistics (percentages, graphs) inferential statistics (chi-square and independent t-test) were used, and the qualitative data were translated, transcribed and interpreted.

Results: The results indicated the severity and prevalence of depression is higher among institutionalized elders than non-institutionalized elders. Adverse life events, economic (financial) problems, physical health problems and problem with social support were the salient risk factors of elderly depression. With regard to coping mechanism an independent t-test indicated that there was a statistically significant difference between the institutionalized and non-institutionalized elderly, showing that non-institutionalized elderly were more likely reported escape avoidance-coping and distancing coping mechanism to cope up depression. Whereas positive appraisal, seeking social support and self-controlling coping mechanisms were reported by non-institutionalized elders. On the other hand, analysis of the chi-square test indicated that there was a statistically significant difference indicating that females were more depressed than men. Finally based on the findings, conclusions and recommendations were made.

Abstract #44 (Poster)

ASSESSMENT OF PATIENTS' SATISFACTION AND ASSOCIATED FACTORS TOWARDS MENTAL HEALTH SERVICE AT AMANUEL SPECIALIZED MENTAL HOSPITAL, ADDIS ABABA, ETHIOPIA

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Background: Satisfaction is the psychological state that results from confirmation or disconfirmation of expectations with reality. Patient satisfaction is a health care recipient's reaction to salient aspect of the contexts, process and result of their service experience. It is worth keeping in mind that satisfaction with the treatment processes, treatment compliance, and positive treatment outcomes are inter-related.

Objectives: The objective of the study was to assess patients' satisfaction and associated factors among outpatients receiving mental health services at Amanuel mental specialized hospital.

Methods: Institution based cross-sectional study was conducted at Amanuel mental specialized hospital. Four-hundred and forty-four randomly selected patients were included in the study. Data was collected by trained data collectors with structured questionnaire. Data were analyzed using SPSS version 15. Global satisfaction rate was examined by the client satisfaction questionnaire (CSQ-8), which includes four responses ranging from poor to very good.

Results: The satisfaction level of patients' receiving mental health services at Amanuel Specialized Mental Hospital was 78.3%. Among the factors studied, educational status, waiting time preceding the service and type of diagnosis were found to be statistically significant. The satisfaction level of patients receiving mental health services at Amanuel Mental Specialized Hospital was found to be good (78.3%).

Conclusion: Though the level of satisfaction was good, there are still areas requiring improvement that the hospitals need to strive to maintain high standard of care in order to keep the patients satisfied with the service delivered. Hence, the hospital needs to encourage the staff to treat patients with courtesy and respect.

Abstract #45 (Poster)

MENTAL HEALTH AND TO SUBTHEME ON STRATEGIES AND POLICIES FOCUSING ON PREVENTION AND INTERVENTION EFFORT IN INDIA

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Background: Alcohol is the most widely used substance in the world, and has been used for thousands of years. Alcohol is a potentially addictive substance. Due to low levels of knowledge about alcohol these communities are severely affected by harm from alcohol.

Objectives: To assess the level of knowledge regarding alcoholism in alcoholics before and after alcohol skill training program.

Methods: The conceptual framework adopted for the study was based on Proshaska and Diclementes Trans-theoretical model (1998). An experimental approach was adopted for the study and the experimental design was selected for the study. A sample of 30 alcoholics was selected by convenient sampling technique from the selected rehabilitation centre. The duration of the study was 30 days. The three session alcohol skill training program was given on basic information about alcohol, drinking moderation skills and relaxation training. The patient practiced the procedure under the supervision of the investigator for 30 days. Then the post-test was conducted using the same scale. The data were analyzed using descriptive (Mean, Standard Deviation, Percentage) and Inferential (Paired't' test, Chi-square) statistical methods.

Results: The pre-test results showed that in 16 (53.3%) had moderately adequate knowledge. Fourteen (46.7%) had adequate knowledge and none of the sample had inadequate knowledge in general aspects of alcohol. With regard to physical aspects 15 (50%) of the sample had adequate knowledge and 14 (46.7%) had moderately adequate knowledge. One (3.3%) of the sample had inadequate knowledge in physical aspects of alcohol. In psychosocial aspects 24 (80%) of the sample had adequate knowledge and 6 (20%) had moderately adequate knowledge. None of the samples had inadequate knowledge in psychosocial aspects of alcohol. But after the alcohol skill training program with regard to general aspects of knowledge on alcoholism 27 (90%) had adequate knowledge and 3 (10%) had moderately adequate knowledge. In physical aspects of knowledge on alcoholism 26 (86.7%) had adequate knowledge and 4 (13.3%) had moderately adequate knowledge. In psychosocial aspects of knowledge on alcoholism, 28 (93.3%) had adequate knowledge and 2 (6.7%) had moderately adequate knowledge. None of the sample had inadequate knowledge in all three aspects of knowledge on alcoholism. It indicates that the sample gained knowledge on alcoholism after the alcohol skill training program.

Conclusion: The study concludes that there is a significant difference between pre and post level of knowledge on alcoholism. It is proved that alcohol skill training program has an influence in providing the knowledge about alcoholism.

Abstract #46 (Poster)

FACTORS ASSOCIATED WITH KHAT USE AND AGE AT FIRST INITIATION AMONG YOUTHS IN SOUTHERN, ETHIOPIA

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Background: The use of khat among youths can be harmful leading to decreased academic performance, increased risk of contracting HIV and other sexually transmitted diseases, or psychiatric disorders such as lethargy, hopelessness and insomnia. It is believed to be one of the factors associated with unprotected risky sexual behavior predisposing the youth for HIV infection and transmission.

Methods: Health institution based cross-sectional study was conducted in South West Ethiopia from January 15 to March 20, 2012. A sample size of 410 was calculated by Epi-info stat calc, and stratified sampling technique was used. Multivariate logistic regression and Cox regression were used to assess the degree of association between dependent and independent variables.

Results: Khat use was positively associated with being male [OR & (95%CI) = 2.89 (1.39, 5.93)], alcohol use [OR & (95%CI) = 4.75 (2.12, 10.63)], not having comprehensive knowledge on HIV [OR & (95%CI) = 2.33 (1.20, 4.53)], viewing sexual films [OR & (95%CI) = 2.08 (1.01, 4.26)] and not having communication with parents about khat chewing [OR & (95%CI) = 2.93 (1.33, 6.47)]. Initiation of khat use before 18 years of age was also positively associated with not having comprehensive knowledge on HIV [Adj. HR & (95%CI) = 1.57 (1.09, 2.55)], alcohol use [Adj. HR & (95%CI) = 3.33 (1.65, 6.74)] and watching sexual films [Adj. HR & (95%CI) = 1.85(1.03, 3.30)].

Conclusion: Measures such as educational campaigns need to be instituted to create awareness among youths and their parents in order to reduce the prevalence of khat chewing habit and its adverse social and health consequences.

Abstract #47 (Poster)

PREVALENCE OF COMMON MENTAL DISORDERS AND ASSOCIATED FACTORS AMONG DEBRE BIRHAN TOWN RESIDENTS, NORTH SHOWA ZONE, AMHARA REGION, ETHIOPIA

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Background: Common mental disorders make a significant contribution to the burden of disease and represent a psychiatric morbidity with significant prevalence, affecting individuals, families and communities in different age groups. Despite this fact, little information is available from low and middle income countries including Ethiopia.

Objectives: To assess the prevalence of common mental disorders and associated factors among residents of Debre Birhan town, North Showa Zone, Amhara Region, Ethiopia.

Methods: Community based cross-sectional study was conducted from May 1-30, 2005 E.C. among 927 residents living in Debre Birhan town. Multi-stage sampling technique was used to select study participants and assessed for Common mental disorders using Self Reported Questionnaires. Logistic regression analyses were computed to determine the association between factors and common mental disorders.

Results: A total of 927 participants were interviewed with a response rate of 97.9%. The prevalence of common mental disorders was found to be 25.6% [males=18.7%, females=28.8%]. Statistically higher levels of common mental disorders were found among females than males [AOR= 1.91, 95% CI (1.25, 2.92)]. Older age, unemployed and those who had < 300 birr average family monthly income were remained positively associated with common mental disorders. Increased risk were observed among participants who experience stressful life event than those who are not [AOR=2.31, 95% CI (1.33, 4.00)]. Chronic physical illness and family history of mental illness were strongly associated with common mental disorders. Khat users were more at risk as compared to nonusers [AOR=2.99, 95% CI (1.35, 6.65)]. Those individuals with an educational level of below secondary education had positively associated with common mental disorders. Marital status, religion, ethnicity, alcohol drinking, and cigarette smoking were not significantly associated.

Conclusion: The prevalence of common mental disorders was relatively high among Debre Birhan town residents which shows a significant public health issue that require a great emphasis.

Abstract #48 (Poster)

DETERMINANTS AND ASSOCIATED RISKS OF SUBSTANCE USE AMONG STUDENTS OF UNIVERSITY OF GONDAR

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Background: The rate of substance abuse has been increasing from time to time with its growingly negative effects. Youth in the university being in the risky period of life are vulnerable to multitude of problems of which substance abuse related socio-economic and health pathologies are the main.

Objectives: To assess determinants and risks associated to substance use among students of University of Gondar.

Methods: A cross-sectional study was conducted among 384 undergraduate students proportionally selected from four campuses of university of Gondar using simple random sampling technique. Data were collected using self-administered questionnaire and analyzed with logistic regression model.

Results: Among the respondents, 232 (60 %) have ever taken any of the four substances: khat, alcohol, cigarette, or marijuana during their stay in the university. The intermingled nature of substances further exacerbated the problem as most of these substances often used in conjunction with any of the other substances. Male students [OR = 1.2], having more substance taking friends [OR = 3.5], with easier access to substances [OR = 3.1] are more likely to take substances than their counter parts. Depression and dependence on substances, weak social attachment, and diminishing motivation to carry out academic tasks were identified as effects of substance use.

Conclusion: Significant numbers of the study participants were engaged in substance taking behavior with its health, psychological, social, and academic risks because of peer pressure, easy access to substances, and weak disciplinary enforcement of the university. The university community should work towards addressing the identified determinant factors with particular emphasis on students' self-esteem development and disciplinary guideline revision.

Abstract #49 (Poster)

PATTERNS OF ILLICIT DRUG USE: FINDINGS FROM A SUBSTANCE ABUSE TREATMENT PROGRAM IN BOTSWANA

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Background: Whilst there is substantial empirical evidence on alcohol abuse in Botswana, to date investigators have marginally examined the prevalence and use of illicit drugs despite police and media reports that denote illegal drug use among Botswana. Important to note is that police reports only information from arrests and seizures data. Hence, knowledge about extent of the problem is limited. The lack of empirical evidence on the use of illicit drugs limits the knowledge about the extent of the problem and consequently impacts on the formulation of policies and substance abuse interventions.

Objectives: The current study examined the prevalence and patterns of illicit drug use among clients who participated in a substance abuse program in Gaborone, Botswana.

Results: Data used in the current study was collected between 2010 and 2012. Results indicated that illicit drug use is prevalent among both females and males in Gaborone and surrounding areas. Although alcohol was reported as frequently used substance at admission to treatment (30% of all admissions), drugs such as marijuana (27% of all admissions), crack cocaine or crack cocaine (5%), ecstasy (2%), crystal meth (2%), mandrax (2%) were also reported. Most of the clients who normally seek intervention are males (70% and female 30%). Results also show that majority of those presenting with illicit drugs use, most clients seek treatment for marijuana. Furthermore, age and employment status seem to play a significant role in the pattern of illicit drug use among drug users. Majority of crack cocaine or cocaine users are employed and aged between 22 and 38 (both ages inclusive), while marijuana is used by clients from the ages of 15 and above.

Conclusions: The findings of the current study have implications on formulation of efficient substance abuse interventions and substance abuse policy and as such recommendations are provided.

Abstract #50 (Poster)

PERCEPTIONS OF MENTAL ILLNESS AMONG THE PUBLIC, PATIENTS AND TRADITIONAL HEALERS: THE CASE OF SOME SELECTED KEBELES IN GONDAR TOWN

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Background: Ethiopia, which is one of the developing countries in the world, malnutrition and preventable infectious diseases are very common. Even if mental health problems are prominent, it is regarded as nonlife threatening. As a result, no attention has been given to mental health problem. Mental health problems account for 12.45% of the burden of diseases in Ethiopia and 12% of the Ethiopian people are suffering from some form of mental health problems of which, 2% are severe cases.

Objectives: The main purpose of this study was to assess perceptions of mental illness among the public, patients, and traditional healers in the case of some selected Kebeles of Gondar town.

Methods: A cross-sectional design with mixed approach was used. Participants from the Public were selected by systematic sampling technique. Patients and traditional healers were selected by available and purposive sampling technique respectively.

Results: Sex was found to have difference in belief about psychological disorder ($t(369) = 2.01, p < 0.05$) while there was no statistically significant difference across late adolescence –early adulthood and adulthood –old age ($t(369) = 0.98, p > 0.05$). With regard to education, there was a statistically significant difference in belief about psychological disorder ($F(2,368) = 4.18, p < 0.05$). In attribution to causes of psychological disorder and treatment seeking behavior, there was no statistically significant difference across sex, age and educational level of the respondents. Traditional healers believe that patients with mental illness can be treated either by traditional healers or by modern treatment. Patients also believe that both traditional healers and scientific treatment can treat mental illness.

Conclusion: Statistically significant difference was seen in belief about psychological disorder across sex and educational status but no difference was found across age. In attribution to causes of psychological disorder and treatment seeking behavior there was no difference across sex, age and educational level.