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Poster 24

[P-24-01]

Metabolic dysfunction-associated steatotic liver disease and risk of depression in young adults: A nationwide population-based cohort study

\*Eunyoung Kim, Su-Min Jeong, Sang Jin Rhee Rhee, Kyu Na Lee, Kyungdo Han (Department of Human Systems Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea(Korea))

[P-24-02]

Alterations in Neurotransmitter-Related Brain Networks in Schizophrenia During Auditory Speech Stimulation

\*Hanxiaoran Li, Tao Li, Wei Wei (Affiliated Mental Health Centre & Hangzhou Seventh People's Hospital, Zhejiang University School of Medicine(China))

[P-24-03]

Conceptualization of Recovery from Eating Disorders: A Qualitative Study Based on Interviews with Recovered Individuals

\*Akie Nakayama, Masaru Takahashi (Ochanomizu University(Japan))

[P-24-04]

The Association between Hemoglobin Level and Risk of Developing Dementia : National Health Screening Cohort(NHIS-HEALS) in Korea

\*SEONG HWAN KIM<sup>1</sup>, Ho Chan Kim<sup>2</sup>, Hyun Soo Kim<sup>1</sup> (1.Dong-A University(Korea), 2.Kosin University(Korea))

[P-24-05]

Association between auditory impairment and risk of VLOSLP: a multicenter, retrospective cohort study

\*Young Tak Jo (Kangdong Sacred Heart Hospital(Korea))

[P-24-06]

Acculturation and Psychological Distress Among Adolescents in the United States: A Cross-Racial Analysis Using California Health Interview Survey (CHIS)

Franco Valencia<sup>1</sup>, \*Karin Kai Wing Wang<sup>1</sup>, So Hee Naomi Ahn<sup>1</sup>, Thirumagal Gowrikanthan<sup>1</sup>, Jasmin Choi<sup>1</sup>, Lester Andrew Uy<sup>1</sup>, Armaan Jamal<sup>1</sup>, Nitya Rajeshuni<sup>1,2</sup>, Robert Huang<sup>1,3</sup>, Gloria Kim<sup>1,3</sup>, Malathi Srinivasan<sup>1,3</sup>, Latha Palaniappan<sup>1,3</sup>, Steven Sust<sup>1,4</sup> (1.Stanford Center for Asian Health Research and Education(United States of America), 2.Department of Pediatrics, Stanford University School of Medicine(United States of America), 3.Department of Medicine, Stanford University School of Medicine(United States of America), 4.Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine(United States of America))

[P-24-07]

Aspects of Experiential Knowledge Accompanying Recovery among Survivors of Substance Use Disorder: A phenomenological study

\*Ayako Yamashita, Yasuaki Akasaki (School of Health Sciences, Faculty of Medicine, Kagoshima University(Japan))

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Poster 24

[P-24-01] Metabolic dysfunction-associated steatotic liver disease and risk of depression in young adults: A nationwide population-based cohort study

\*Eunyoung Kim, Su-Min Jeong, Sang Jin Rhee Rhee, Kyu Na Lee, Kyungdo Han (Department of Human Systems Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea(Korea))

Keywords: depression, steatotic liver disease, alcohol

The prevalence of both steatotic liver disease (SLD) and depression is rising rapidly among young adults. This study aimed to evaluate the long-term risk of developing depression based on newly defined SLD subtypes, including metabolic dysfunction-associated steatotic liver disease (MASLD), and to assess the impact of alcohol consumption. We analyzed data from 6,226,824 young adults aged 20–39 years who underwent health screenings between 2009 and 2012, using the Korean National Health Insurance Service database. SLD was defined by a fatty liver index of 30 or higher and classified into five subtypes: MASLD, MASLD with increased alcohol intake (MetALD), alcohol-related liver disease (ALD) with cardiometabolic risk factors, MASLD with other combined etiology, and non-MASLD. Depression was identified using ICD-10 codes F32-33 over a median followup period of 10.4 years. All SLD subtypes were associated with an increased risk of depression compared to individuals without SLD. The highest hazard ratio (HR) was seen in MASLD with other combined etiology (HR 1.48), followed by ALD (HR 1.34), MetALD (HR 1.14), and MASLD (HR 1.03). Heavy alcohol use significantly raised depression risk regardless of cardiometabolic status, while mild alcohol consumption showed a protective effect, forming a J-shaped association. Stratified analyses revealed that females and individuals under 30 years had a higher susceptibility to depression in the presence of SLD. In conclusion, newly defined SLD subtypes carry varying risks for developing depression in young adults. These findings improve understanding of the role of alcohol, metabolic health, and liver disease etiology in mental health outcomes. The results highlight the importance of integrated screening and early mental health interventions for individuals with SLD, especially among high-risk subgroups.

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[P-24-02] Alterations in Neurotransmitter-Related Brain Networks in Schizophrenia During Auditory Speech Stimulation

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Keywords: Schizophrenia、Auditory verbal hallucinations、Receptor-enriched analysis of functional connectivity by targets、Partial Least Squares Correlation

Auditory verbal hallucinations (AVH) are a hallmark symptom of schizophrenia, associated with extensive alterations in functional brain networks. Prior research has suggested that the core pathophysiological mechanisms of schizophrenia may involve the dysregulation of multiple neurotransmitter signaling pathways. Yet, the specific impact of various neurotransmitters or transporters on brain functional networks remains poorly understood. This study aimed to link neurotransmitter function to abnormal functional brain networks in schizophrenia under auditory stimulation, thereby deepening our understanding of the pathophysiological mechanisms at play and setting a foundation for future pharmacological interventions. Data were sourced from a publicly available dataset, including 46 schizophrenia patients (23 with frequent AVH and 23 without) and 25 age-, sex-, and IQ-matched healthy controls. Participants underwent fMRI scans while exposed to auditory stimuli including white noise, words, sentences, and reversed speech. This study utilized publicly available PET atlases for six neurotransmitters or transporters (DAT, 5-HTT, mGluR5, GABAa, NET, VAChT). The structural and functional MRI data were preprocessed using fMRIprep, followed by extraction of time series data for each brain region, and the application of REACT to identify neurotransmitter-related brain activity. The analysis revealed three distinct patterns of dysregulation in schizophrenia. Pattern 1 showed decreased variability across extensive brain networks, particularly during white noise exposure compared to speech stimuli. Pattern 2 demonstrated that abnormalities in neurotransmitter-related brain regions varied significantly with the auditory task, with reversed speech inducing opposite effects compared to other types of auditory stimuli. Pattern 3 revealed that the presence of AVH influenced abnormalities in neurotransmitterrelated brain regions. By integrating molecular data on various receptors and transporters in the brain with fMRI analyses, this study elucidates how speech stimulation impacts activation in different neurotransmitter-related brain regions. These findings enhance our understanding of the relationship between schizophrenia and neurotransmitter receptors or transporters, providing a theoretical basis for future exploration of multi-receptor or multi-medication treatment strategies.

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[P-24-03] Conceptualization of Recovery from Eating Disorders: A Qualitative Study Based on Interviews with Recovered Individuals

\*Akie Nakayama, Masaru Takahashi (Ochanomizu University(Japan))
Keywords: Eating disoders、Conceptualization of Recovery、Qualitative Study

This study aimed to explore how individuals with eating disorders conceptualize recovery. The study involved nine female participants who self-identified as having recovered from an eating disorder and had been symptom-free from eating disorders or other psychiatric conditions for a minimum of two years. Individual semi-structured interviews were conducted, enabling participants to articulate their recovery journey from the onset of their disorder to the point of self-recognition as recovered. The data were analyzed utilizing the Modified Grounded Theory Approach (Kinoshita, 2003). Five core elements emerged as central to the conceptualization of recovery. Firstly, participants distinctly recognized their ability to eat "normally," signifying both an objective and subjective absence of symptoms. Secondly, they experienced a sense of continuity between their past and present selves and accepted themselves as "good enough." Thirdly, they prioritized themselves in their lives and aspired towards the future, moving away from prioritizing others. Fourthly, they acquired social roles and experienced a sense of belonging. Fifthly, they perceived recovery as an ongoing and perpetual process. These findings suggest that recovery is a highly subjective experience that cannot be fully defined using objective criteria alone. Therefore, clinicians should refrain from imposing a fixed image or direction of recovery and instead respect individual differences. Furthermore, as all participants reported various challenges even after full remission, continuous support was deemed essential beyond the acute phase.

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Poster 24

[P-24-04] The Association between Hemoglobin Level and Risk of Developing Dementia: National Health Screening Cohort(NHIS-HEALS) in Korea

\*SEONG HWAN KIM<sup>1</sup>, Ho Chan Kim<sup>2</sup>, Hyun Soo Kim<sup>1</sup> (1.Dong-A University(Korea), 2.Kosin University(Korea))

Keywords: Hemoglobin, Dementia, Aging, NHIS, ICD-10

## **Research Purpose**

The global aging population is raising concerns about the onset of dementia. The current treatment for dementia is lacking in fundamental treatment as it focuses on slowing the decline in function rather than improving symptoms. It is necessary to identify and adjust risk factors in advance in the preventive aspect of dementia, and several previous studies have shown that abnormal hemoglobin can increase the risk of dementia. Therefore, this study aims to investigate the association between hemoglobin levels and the risk of developing dementia by gender using a population-based cohort in Korea.

## **Study Participants and Methods**

The study was conducted in 515,000 people aged from 40 to 79 years using National Health Examination Cohort (NHIS-HEALS) data based on the National Health Insurance (KNHI) program in South Korea. Subjects were followed up until December 31th, 2019. The independent variable was hemoglobin level, and it was analyzed by dividing it into quintiles according to the hemoglobin level, excluding the top 1% and the bottom 1%. The dependent variable was dementia, defined using the International Classification of Diseases (ICD-10) code and drug prescription information. This study was analyzed separately between men and women, and the relationship between hemoglobin levels and dementia incidence was investigated by adjusting various covariate variables.

## **Results**

After adjusting for age, sex, body mass index, residence, smoking status, drinking status, regular exercise, income level, hypertension, diabetes, dyslipidemia, depression history, and the Charlson comorbidity index (CCI), the risk of developing dementia increased when the hemoglobin level was lower or higher than the baseline. In particular, in dementia, including all causes, the hazard ratio of developing dementia gradually increased as the hemoglobin level decreased. In addition, the U-shaped relationship in which the incidence of dementia increases when hemoglobin levels are low or high was more pronounced in women.

## Conclusion

Hemoglobin levels were identified as independent risk factors affecting the incidence of dementia. When the hemoglobin level was low or high, the incidence of dementia increased.

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Poster 24

[P-24-05] Association between auditory impairment and risk of VLOSLP: a multicenter, retrospective cohort study

\*Young Tak Jo (Kangdong Sacred Heart Hospital(Korea))
Keywords: VLOSLP、Schizophrenia、Auditory impairment、Common data model

Introduction: Very late-onset schizophrenia-like psychosis (VLOSLP) is defined as schizophrenia-like psychosis with onset after 60 years of age. It is a major functional psychosis in older adults, significantly impairing independence and quality of life. Growing evidence suggests sensory deprivation, especially hearing loss, may precipitate psychosis in later life. However, large-scale, population-based studies examining this relationship remain limited.

Methods: We conducted a retrospective cohort study using the Korean Observational Medical Outcomes Partnership Common Data Model (OMOP-CDM), which harmonizes electronic health records from over 50 million patients. Adults with documented auditory impairment were 1:2 propensity-score matched with controls without hearing loss based on age, sex, comorbidities, medication exposure, laboratory results, and composite risk scores. Incident VLOSLP cases were tracked following a one-year lag period. Centerspecific Cox regression models were pooled using random-effects meta-analysis.

Results: A total of 11,722 hearing-impaired patients and 20,111 propensity score-matched controls from six medical centers were included. The analysis revealed a significantly increased risk of developing VLOSLP in patients with auditory impairment (Hazard ratio [HR] = 1.48; 95% confidence interval [CI] = 1.10 - 2.00; I2 = 0.0%). Sensitivity analyses using 1:4 propensity score matching yielded consistent results (HR = 1.29; 95% CI = 1.00 - 1.67; I2 = 0.0%), reinforcing the robustness of our findings across varying matching ratios.

Conclusion: Our findings indicate auditory impairment significantly increases the risk of VLOSLP, aligning with previous studies linking auditory impairment to psychosis. These results highlight the importance of routine auditory screening in elderly individuals and timely intervention with hearing aids if necessary. Further research is recommended to determine whether auditory rehabilitation through hearing aids can mitigate this risk by preserving sensory input and reducing vulnerability to late-life psychosis.

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Poster 24

[P-24-06] Acculturation and Psychological Distress Among Adolescents in the United States: A Cross-Racial Analysis Using California Health Interview Survey (CHIS)

Franco Valencia<sup>1</sup>, \*Karin Kai Wing Wang<sup>1</sup>, So Hee Naomi Ahn<sup>1</sup>, Thirumagal Gowrikanthan<sup>1</sup>, Jasmin Choi<sup>1</sup>, Lester Andrew Uy<sup>1</sup>, Armaan Jamal<sup>1</sup>, Nitya Rajeshuni<sup>1,2</sup>, Robert Huang<sup>1,3</sup>, Gloria Kim<sup>1,3</sup>, Malathi Srinivasan<sup>1,3</sup>, Latha Palaniappan<sup>1,3</sup>, Steven Sust<sup>1,4</sup> (1.Stanford Center for Asian Health Research and Education(United States of America), 2.Department of Pediatrics, Stanford University School of Medicine(United States of America), 3.Department of Medicine, Stanford University School of Medicine(United States of America), 4.Department of Psychiatry and Behavioral Sciences, Stanford University School of Medicine(United States of America))

Keywords: Acculturation、Adolescent Mental Health、Immigrants、Racial Disparities、Language

Mental health challenges affect one in five adolescents in the U.S., yet the relationship between acculturation and mental health among immigrant youth remains underexplored. This study examines how acculturation-related factors relate to psychological distress among adolescents across racial groups in California.

We analyzed data from 4,366 adolescents aged 12–17 using CHIS data from 2019 to 2022. Participants self-identified as White, African American, American Indian/Alaska Native, Asian, Hispanic, Pacific Islander/Other Single Race, or Multiracial. Psychological distress in the past year was assessed using the Kessler 6 scale. Acculturation was defined by nativity status, years lived in the U.S., and language(s) spoken at home. Surveyweighted logistic regression models were used to assess associations, adjusting for race, sex, age, and parental education.

Compared to White adolescents, African American, Asian, and Hispanic youth had lower odds of reporting psychological distress (OR = 0.36, 95% CI [0.21, 0.65], OR = 0.58 [0.44, 0.77], OR = 0.73 [0.60, 0.90]). Female adolescents were twice as likely to report distress (OR = 1.98 [1.67, 2.34]). Older age (OR = 1.14 [1.09, 1.19]) and parental higher education (OR = 1.39 [1.15, 1.68]) were also associated with increased odds of distress. Speaking one foreign language at home (OR = 0.55 [0.26, 1.19]) and living for 15+ years in the U.S. (OR = 0.72 [0.28, 1.89]) appeared protective, while speaking multiple foreign languages was associated with elevated risk (OR = 1.36 [0.90, 2.06]).

Though not at conventional levels of significance, monolingualism at home and longer U.S. residence may be protective against psychological distress, while bilingualism could reflect stress from the parent–child acculturation gap. Targeted efforts are therefore needed to address mental health challenges related to acculturation.

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Poster 24

[P-24-07] Aspects of Experiential Knowledge Accompanying Recovery among Survivors of Substance Use Disorder: A phenomenological study

\*Ayako Yamashita, Yasuaki Akasaki (School of Health Sciences, Faculty of Medicine, Kagoshima University(Japan))

Keywords: Substance use disorder、Recovery、Survivor

Background: Individuals with substance use disorders may continue to experience difficulties with daily life, even after overcoming drug dependency, making recovery support necessary to maintain a stable community life.

Purpose: This study aimed to clarify the experiential knowledge gained by survivors of substance use disorders during their recovery and contribute to the establishment of recovery support systems.

Methods: This qualitative study used a phenomenological design. Participants were recruited with the help of a self-help group representative for substance use disorders who introduced us to potential participants. Semi- structured interviews were conducted between October and November 2024. The survey items included personal characteristics: age, participation in self-help groups, age at diagnosis, treatment duration, and factors perceived as necessary for recovery. Data were analyzed using Colaizzi's phenomenological method. This study was approved by the Kagoshima University Epidemiological Research Ethics Committee.

Results: The participants had a mean age of  $41.8 \pm 10.1$  years. The following five themes were identified as triggers for recovery: encounters with role models; crisis management against relapse; healing through natural environments experienced sensorially; experiences that enhance self-esteem; and pursuit of new value systems for living. Conclusion: Our findings indicate that recovery from substance use disorders requires encounters with role models and trustworthy healthcare professionals as well as spiritual healing of the mind and body in safe and secure environments.