b Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-01]

When Do Emotions Emerge? Blood Glucose Levels and the Onset of Aggression, Anger, and Irritability

*Sandra Melissa Larson, Michael J Toohey (Antioch University Seattle(United States of America))

[P-29-02]

Interpretation Bias and Irritability Mediate the Association between Cognitive Rigidity and Depression among Psychiatric Patients

*Eunkyung Kim^{1,3}, Daeho Kim², Joonho Choi², Seon-cheol Park², Jin-woong Yoon¹ (1.Department of Psychiatry, Hanyang University Guri Hospital, Republic of Korea(Korea), 2.Department of Psychiatry, Hanyang University College of Medicine(Korea), 3.Department of Premedicine, Hanyang University College of Medicine(Korea))

[P-29-03]

Latent profile analysis of outpatients' perceived interoceptive awarenessand rumination in Korea: a cross-sectional study

Mi-Sun Lee³, *Hyu Jung Huh^{1,2} (1.Department of psychiatry, Incheon St. Mary's Hospital(Korea), 2.Department of psychiatry, College of Medicine, Catholic university of Korea(Korea), 3.Department of preventive medicine, College of Medicine, Catholic university of Korea(Korea))

[P-29-04]

Thai medical students' experiences in developing emotional intelligence through applied theatre workshops

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[P-29-05]

Combination therapy against mood and anxiety disorders: association between efficacy and white blood cell count

*Meng xuan Qiao, Hua Yu, Tao Li (Affiliated Mental Health Center & Hangzhou Seventh People's Hospital and School of Brain Science and Brain Medicine, Zhejiang University School of Medicine(China))

[P-29-06]

The Cultural and Emotional Baggage of Language Brokering, Rumination and Wellbeing: A Retrospective Study

*Renu Narchal (Western Sydney University(Australia))

b Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-01] When Do Emotions Emerge? Blood Glucose Levels and the Onset of Aggression, Anger, and Irritability

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Keywords: anger, irritability, aggression, blood glucose, Anger treatment

This study explores aggression, anger, and irritability at different blood glucose levels. The aim is to identify specific blood sugar levels at which these emotional responses are most prevalent.

Forty-three participants with Type 1 Diabetes completed an online survey, answering three quantitative questions about their emotional experiences at different blood glucose levels: "At what blood sugar range do you feel angry?" along with similar questions for aggression and irritability, with options ranging from severe hypoglycemia (<40mg/dL) to dangerously high hyperglycemia (>400mg/dL).

The data reveals distinct emotional responses to varying blood sugar levels, with irritability (n=82) being the most common reaction at high blood sugar levels. Irritability peaked at severe hyperglycemia (>250mg/dL) and critical hyperglycemia (>300mg/dL), with 53.49% (n=23) and 51.16% (n=22), respectively. Anger (n=71) followed closely but declined once blood sugar levels exceeded 250mg/dL, dropping to 45.24% (n=19) at critical hyperglycemia. Aggression (n=46) was the least frequent, peaking at 40.48% (n=17) at >300mg/dL. While irritability and anger were both common in severe hyperglycemia (>250mg/dL), irritability became more prominent as blood sugar exceeded 300mg/dL.

Irritability was the most common emotional response across all hypoglycemic ranges, peaking at **39.53%** (**n=17**) in mild hypoglycemia (**55-70mg/dL**). Anger was most pronounced in moderate hypoglycemia (**40-54 mg/dL**) at **30.95%** (**n=13**), with severe hypoglycemia (**<40mg/dL**) contributing at **21.43%** (**n=9**). Aggression peaked in severe hypoglycemia at **28.57%** (**n=12**) and moderate hypoglycemia at **26.19%** (**n=11**). These results indicate irritability dominates across the hypoglycemic spectrum, while anger and aggression are more intense but less frequent.

The link between blood glucose and emotion reveals how physiological states can present as psychological symptoms, particularly irritability, anger, and aggression. Cultural perspectives shape these responses, which influence how emotions are expressed, perceived, and managed. Considering both biological mechanisms and cultural context allows for more accurate diagnosis and treatment that is effective and culturally responsive.

b Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-02] Interpretation Bias and Irritability Mediate the Association between Cognitive Rigidity and Depression among Psychiatric Patients

*Eunkyung Kim^{1,3}, Daeho Kim², Joonho Choi², Seon-cheol Park², Jin-woong Yoon¹ (1.Department of Psychiatry, Hanyang University Guri Hospital, Republic of Korea(Korea), 2.Department of Psychiatry, Hanyang University College of Medicine(Korea), 3.Department of Premedicine, Hanyang University College of Medicine(Korea))

Keywords: Cognitive rigidity、Interpretation Bias、Irritability、Depression

Introduction: Cognitive rigidity, characterized by persistent inflexible thinking and difficulty adapting to new information, has been linked to the onset and maintenance of depression. This study investigated roles of interpretation bias and irritability in the relationship between cognitive rigidity and depression among psychiatric patients. **Method:** Data were collected from 74 psychiatric patients using the Cognitive Flexibility Inventory (CFI), Beck Depression Inventory-II (BDI-II), Ambiguous/Unambiguous Situations Diary Extended Version (AUSD-EX), and the Brief Irritability Test (BITe). Regression analyses and bootstrapping methods were used to analyze the data.

Results: Cognitive flexibility negatively predicted depression. Moreover, interpretation bias significantly mediated the relationship between cognitive flexibility and depression, whereas irritability did not. However, interpretation bias and irritability sequentially mediated the effect of cognitive flexibility on depression.

Conclusion: The findings suggest that negative interpretation bias and irritability may play a significant role in the pathway linking cognitive rigidity and depression. Therefore, interventions aiming to reduce depressive symptoms should focus not only on enhancing cognitive flexibility but also on modifying negative interpretation bias toward ambiguous situations and managing irritability.

b Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-03] Latent profile analysis of outpatients' perceived interoceptive awarenessand rumination in Korea: a cross-sectional study

Mi-Sun Lee³, *Hyu Jung Huh^{1,2} (1.Department of psychiatry, Incheon St. Mary's Hospital(Korea), 2.Department of psychiatry, College of Medicine, Catholic university of Korea(Korea), 3.Department of preventive medicine, College of Medicine, Catholic university of Korea(Korea))

Keywords: Interoceptive awareness、Rumination、Depression、Anxiety、Somatization

Background: Outpatients who have depressive and anxiety symptoms could experience a range of interoceptive awareness and rumination; however, the level of awareness might vary based on individual symptoms and circumstances.

Objectives:To investigate the potential patterns of interoceptive awareness and rumination for outpatients, and to examine the association of these patterns and psychological symptoms. **Methods:**From August 2021 to February 2022, the outpatients were recruited inKorea. Latent profile analysis was conducted to analyze optimal patterns of interoceptive awareness and rumination. The logistic regression was performed to evaluate the associations between these patterns, depression, anxiety, and somatization. **Results:**A total of 115 outpatients were participated. Three distinct latent profiles were identified: "high interoceptive awareness and low rumination" (21.8%), "high interoceptive awareness and high rumination" (45.2%), and "low interoceptive awareness and high rumination" (33.0%). Participants with low interoceptive awareness and high rumination were associated with increased risks of depressive symptoms (adjusted odds ratio [aOR]=7.406), state anxiety (aOR=4.111), trait anxiety (aOR=2.789) and somatization (aOR=3.183).

Conclusions:Adults with low interoceptive awareness and high rumination could exhibit more severe psychological symptoms. Such individuals may be provided the early screening and targeted somatic-based interventions.

Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-04] Thai medical students' experiences in developing emotional intelligence through applied theatre workshops

*Phuhin Thongsook¹, Varis Manomaivong¹, Yodying Dangprapai¹, Wuttipat lammeechai^{1,2} (1.Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok(Thailand), 2.MGH Institute of Health Professions, Boston, Massachusetts(United States of America)) Keywords: Emotional intelligence、Applied theatre、Medical education、Non-technical skills、Qualitative research

Background: Applied theatre has been utilized for learning purposes since the 20th Century. Medical education has adopted applied theatre to enhance medical students' competencies such as communication, creative learning, and personal development, which are related to emotional intelligence. Therefore, this study aimed to describe Thai medical students' experiences in developing emotional intelligence through applied theatre workshops.

Method: Participants were medical students who attended applied theatre workshops at the Faculty of Medicine Siriraj Hospital, Bangkok, Thailand. Three highly-experienced actors and screenwriters designed and facilitated the workshops. After completion of the workshops, each participant joined a semi-structured interview individually. Interviews were recorded and verbatimly transcribed to text. The authors (WI, PT, and VM) employed thematic analysis to deductively analyze interview transcriptions within Goleman's framework of four components of emotional intelligence, thereby constructing themes. Subthemes were inductively analyzed regarding participants' experiences. Investigator triangulation was employed to increase the trustworthiness of the study results. **Result**: Seven medical students (39% of participants) joined the interviews. Four major components of emotional intelligence were constructed as themes, and seven subthemes were described. Self-awareness consisted of two subthemes: embracing one's own positive and negative emotions, and understanding the background of one's emotions and thoughts. Self-regulation had one subtheme: appropriately manage own emotions and expressions. Three subthemes for social awareness included understanding the diversity of thoughts, emotions, decisions, and background, applying to understanding patients, and balacing ethical dilemma. Relationship management consisted of two subthemes: a new mindset of teamwork and carefully communicating with others. **Conclusion**: Participants described experiences of improving their emotional intelligence in four primary attributes while attending applied theatre workshops. Mixed-method studies are potential future research to increase the application of this study's results.

Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-05] Combination therapy against mood and anxiety disorders: association between efficacy and white blood cell count

*Meng xuan Qiao, Hua Yu, Tao Li (Affiliated Mental Health Center & Hangzhou Seventh People's Hospital and School of Brain Science and Brain Medicine, Zhejiang University School of Medicine(China))

Keywords: depressive symptoms, white blood cell count, bright light therapy, inflammation

Background: Numerous studies suggest that hyperactivation of the immuno-inflammatory system, as reflected in cytokine levels, is associated with more severe symptoms in mood and anxiety disorders and weaker response to treatment. Here we examined whether the efficacy of a combination of bright light therapy, repetitive transcranial magnetic stimulation and medication is associated with another immuno-inflammatory index, white blood cell count, before and/or after treatment, in a retrospective observational study.

Methods: We retrospectively analyzed 467 inpatients with major depressive, bipolar, or generalized anxiety disorder who were treated with combination therapy for at least one week at Hangzhou Seventh People's Hospital between April 2022 and April 2024. Potential associations between remission incidences within four weeks after treatment and white blood cell count both before treatment and post-treatment were explored. We used mixed-effects linear modeling to examine the association between treatment characteristics and changes in white blood cell count and depressive symptoms.

Results: Bipolar and major depressive disorders were associated with significantly higher white blood cell counts at baseline than generalized anxiety disorder as well as with significantly lower remission incidences. Bright light therapy's effects depended on baseline inflammation, more sessions led to greater reductions in the Hamilton Depression Rating Scale score with low baseline white blood cell count, and greater decreases in white blood cell count with high baseline count. In contrast, repetitive transcranial magnetic stimulation sessions showed no association with white blood cell count.

Conclusion: These results highlight the need to account for an individual's immuno-inflammatory state when personalizing treatment for mental health disorders.

b Sun. Sep 28, 2025 11:00 AM - 12:00 PM JST | Sun. Sep 28, 2025 2:00 AM - 3:00 AM UTC **a** Poster Session Hall (Foyer 2)

Poster 29

[P-29-06] The Cultural and Emotional Baggage of Language Brokering, Rumination and Wellbeing: A Retrospective Study

*Renu Narchal (Western Sydney University(Australia))

Keywords: Language brokering、Migration、Culturally and Linguistically Diverse、Wellbeing、Australia

Background: Due to the variation of the macrosystem, children and young people from Culturally and Linguistically Diverse (CaLD) backgrounds often carry the cultural and emotional load by serving as informal interpreters and translators for their parents to become their language brokers. Language brokering is commonly observed in children and young people post-migration as they assist parents in navigating the new cultural context. This emotional and functional reliance may weigh down brokers with adult-like responsibility suggesting 'parentification'. Research subsequently has focused on the mental health, risk factors, emotional load and wellbeing of language brokers.

Objectives: The study aimed to examine the relationship between perceptions of language brokering, rumination and psychological wellbeing.

Method: Adopting a mixed method approach the current study explored the experiences of 130 language brokers (113 females, 15 males, 1 gendered fluid and 1 preferred not to say) from varied ethnic backgrounds within the Australian context. They completed an online survey that also included five open-ended questions.

Results: The qualitative component of the study is presented in this paper. A thematic analysis of extent of brokering and the open-ended responses resulted in four main themes: The positives of being in the deep end, accuracy anxiety, emotional carry-on baggage, and procedural brokering.

Discussion: Language brokers' perception can be influenced by their sense of obligation or pride, resulting in negative or positive feelings respectively. This study suggested that perceptions of language brokering as a 'caring practice' is a normative in immigrant households. Despite their frustrations, cultural and emotional baggage, language brokers strive to care for their parents to achieve the best outcome for them and their family. The findings allow for deeper understanding of migrant challenges, gaps in the available supports and have important implications for informed policy changes to enhance services aimed to improve the wellbeing of migrants in Australia.