symptoms in a population of adolescents and young adults residing in rural and indigenous communities in San Luis Potosi state, Mexico.
Methods: A cross-sectional study was conducted. Depressive symptoms were assessed using the Patient Health Questionnaire-9 (PHQ-9), while anxiety symptoms were measured using the Generalized Anxiety Disorder-7 (GAD-7) scale. Descriptive statistics, a comparative analysis and a principal components analysis were performed with the sociodemographic data and the evaluations of each item of the PHQ9 and GAD7.
Results: 1,057 participants aged between 15 and 25 years (16.63 ± 1.53 years) were included in the study. The sample comprised 60.51% females 39.48% males, and 7 participants reported speaking an indigenous language. 28.67% of participants had responses compatible with anxiety, while 34.98% had depression, of which 46.1% qualified as having major depressive disorder. Regarding GAD7, participants with higher severity scores presented a higher average response on item 3 about feeling excessively worried about different things, while those with depression did not respond predominantly to questions regarding mood, but rather to item 3 referring to having difficulty falling or staying asleep and item 4 about feeling tired or having low energy. 4.67% of participants reported suicidal ideation almost every day. When the GAD7 and PHQ9 items were subjected to a principal component analysis, it was observed that PC1=51.67%. The factors self-reported as most closely linked to depressive and anxious symptoms included the age of the caregiver, sex and age of the participant, as well as whether they spoke an indigenous language.
Conclusions: Difficulty falling and staying asleep, as well as perceived lack of energy or fatigue, are the main ways in which this population recognizes signs of depression, rather than feelings of sadness or anhedonia. Given the high prevalence of depressive symptoms and the identified risk profiles, there is an urgent need for targeted mental health services and interventions in these vulnerable populations.

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Forensic Psychiatry

EPP302

Incidents of violence and proportionality of restrictive practices: a D-FOREST study

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Introduction: Aggression and violence are common in psychiatric in-patient wards. Preventive measures such as de-escalation, increased observations, extra medication, restraint and seclusion are utilised by nurses and authorised by doctors in a highly skilled way that should be proportionate to the risks posed. There is limited empirical data on the proportionality of the use of restrictive practices within Irish forensic psychiatric units.
Objectives: The aim of this study was to rate the severity of incidents and proportionality of response to incidents in the high secure unit within the National Forensic Mental Health Service.
Methods: This is a prospective cohort study set in the Central Mental Hospital. Patients were assessed each day using the Dynamic Assessment of Situational Aggression (DASA) scale and incidents were rated each day using the DUNDRUM Restriction-Intrusion of Liberty Ladders Scales (DRILL), which includes the assessment of adverse incidents, violence and self-harm, interventions including restrictive practices and consequences. In this study we used episodes of restriction as an outcome measure. Data were gathered as part of the Dundrum Forensic Redevelopment Evaluation Study (D-FOREST). Generalised Estimating Equations were used to analyse repeated measures in the same subjects.
Results: There were 384 patient days in scope, 411 lines of data including 326 patient-days, 85 incidents and 63 incidents of seclusion. The DRILL scales had good internal consistency (DRILL behaviours scale Cronbach's alpha=0.789; DRILL interventions scale Alpha=0.866). The DASA on the day before an incident predicted the score on the DRILL behaviours scale (severity of behaviours) Wald X^2=39565.2, p<0.001, with DUNDRUM-1 triage security scale also contributing significantly to the model Wald X^2=884.3, p<0.001. The best model to predict the DRILL interventions scale included DASA on the day before (Wald X^2=14.6, p=0.012) DRILL-behaviours scale (Wald X^2=728.7, p<0.001) and DUNDRUM-1 (Wald X^2=10,819.4, p<0.001). This was also the best model to predict whether or not a patient was secluded (DASA day before Wald X^2=46.4, p<0.001; DRILL-behaviours scale Wald X^2=173.2, p<0.001; DUNDRUM-1 Wald X^2=6153.5, p<0.001).
Conclusions: Harmful behaviours and preventive and restrictive interventions can be described by rating items ('ladders') with good internal consistency, demonstrating that behaviour escalates in a meaningful sequence of increasingly serious harmful occurrences. The more serious the incident, the higher the level of restrictive practice used, demonstrating proportionality. This model of short term risk assessment and preventative interventions can be used to develop more effective and less restrictive interventions. Future research will explore moderating and mediating factors.

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EPP303

The application value of facial expression analysis system in violence risk assessment of patients with mental disorders

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Introduction: Patients with mental disorders often engage in extreme and unpredictable violent behaviors that seriously endanger the public security and stability of the society. Violence risk is commonly assessed by subjective judgement, which may lead to bias and uncertainty in the appraisal results. Existing expression recognition and analysis techniques have limitations in identifying the emotional states of patients with mental disorders.
Objectives: The study aimed to explore the association between violent behaviors and facial expression in patients with mental disorders by machine learning algorithm, to evaluate the application value of facial expression analysis system in violence risk assessment of individuals with mental disorders.
Methods: Thirty-nine patients with mental disorders were enrolled and assessed by using Modified Overt Aggression Scale (MOAS), positive and negative syndrome scale (PANSS) and brief psychiatric rating scale (BPRS). An emotional arousal paradigm was performed and the intensity of baisc emotions and expression action units was recorded before, during and after the paradigm. The processed quantitative data was used to generate one-dimensional waveform maps and two-dimensional time-frequency maps and then quantized feature data were extracted. A machine learning model with high accuracy was trained using these feature data, which can accurately determine the violence risk states of patients and output the probability. All individuals participated voluntarily and provided informed consent. This study was approved by the ethics committee of the Academy of Forensic Science.
Results: The intensity difference of sadness, surprise and fear in different time periods was statistically significant. The intensity of the left medial eyebrow lift action unit was found significantly different before and after the emotional arousal. The intensity of anger and disgust was positively correlated with the MOAS scores, PANSS scores and BPRS scores. The features of time-frequency diagrams of 5 expression action units (medial eyebrow raise, eyebrow lowering, slightly open lips, chin drop and eye closure) and 8 basic emotions were selected and then support vector machine was used for triple classification, which is a classifier that can well distinguish the three stages of non-violence risk period, violence risk period, and post-violence risk period. In the 4:1 training-testing grouping, the classification accuracy reaches 91.2%.
Conclusions: Featured expressive action units and various baisc emotions might be used to capture information associated with violent behaviors. The facial expression analysis system mentioned above can be used as an auxiliary tool to assess the potential risk of violence in patients with mental disorders.

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Emergency Psychiatry

EPP304

Transforming Psychiatric Emergency Care: A Community-Focused Model in Trento, Italy

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Introduction: Psychiatric emergencies are a global challenge requiring timely, effective interventions. Traditional intra-hospital approaches often struggle to address the complexity of these crises in a patient-centered and family-inclusive manner. Trento's Mental Health Service has implemented a community-based, multidisciplinary approach to manage psychiatric emergencies, emphasizing the socio-familial context of each crisis.
Objectives: This study aims to evaluate the effectiveness of the Trento Crisis Team in managing psychiatric emergencies outside of hospital settings, reducing hospital admissions, and enhancing patient and family engagement in the recovery process. Additionally, we assess the impact of the crisis service on public stigma related to mental health crises.
Methods: The study reviews the structure and organization of the Trento Crisis Team, which operates within the Mental Health Centre. The team includes 3 psychiatrists, 5 nurses, 5 educators/psychiatric rehabilitation technicians (TERP), and 5 Peer Support Specialists (*"ESP"* in Italian). Data were collected from emergency intervention records, hospital admission rates, and user satisfaction surveys. Comparisons were made between territorial and intra-hospital crisis management outcomes, with statistical analysis on key performance indicators such as the number of hospital admissions and compulsory health treatments.
Results: Preliminary results indicate a reduction in hospital admissions (*Image 1*) and a significant decrease in the number of compulsory interventions (*Image 2*) since the establishment of the dedicated Crisis Team. While overall user numbers have increased (*Image 3*), the availability of peer support and home-based interventions has improved patient satisfaction and engagement. However, the system still faces challenges in reducing hospital admissions due to the increasing volume of psychiatric emergency cases.
Image 1: