

Second, we aimed to improve the prediction by including information from intermediate visits (1, 3, and 6 months), mimicking more closely the clinician's way of thinking and the multiple observations a patient receives.

**Methods:** A sample of 163 BD patients (53% females, mean age 44.7, SD 15.3) were recruited.

Based on EHR, **56 clinical and demographic features were extracted, including hospitalizations, suicidal behaviors lifetime and in the last 12 months**, along with comorbidity, family history, work, and therapies. **Patients were followed up for 12 months.**

Support Vector Machine (SVM) was used to differentiate subjects who attempted suicide versus those who did not **in a 12-month time window**, within a repeated nested Cross-Validation. The SVM was optimized weighting the hyperplane for uneven group sizes. Then, **we repeated the analysis including information from intermediate visits** (1, 3, 6 months after the first contact). **For each visit, we created a composite score** based on current therapy, new admissions, and ER presentations. To avoid circularity, all the information (ER, admission etc.) related to a suicide attempt were not included.

**Results:** During the 12-months follow-up, **9.8% of patients attempted suicide.** The results from the 12-months suicide prediction model obtained an Area Under the Curve of 0.71 (with a Balanced Accuracy (BAC) of 68%).

**After incorporating the composite scores based on intermediate visits in the model, the prediction raised** to an Area Under the Curve of 0.78 (BAC 73%), suggesting that including intermediate visits is a valid method to improve prediction.

The features that contributed the most to the prediction were **the composite score at 6-month visit, lifetime number of suicide attempts, suicide attempts in the last 12 months, substance of abuse** (other than cannabis), and antipsychotics.

**Conclusions:** ML proved a good prediction accuracy for suicide in a 12-months time window, and the prediction was improved by including data from intermediate visits. **The model showed the importance of time-dependent features, such as attempts in the last 12 months.** Our analysis might help in identifying early clinical risk factors and underlies **the importance of multiple evaluations in populations at risk.**

**Disclosure of Interest:** None Declared

## EPP0615

### Suicidal behavior in homeless population and its relationship with experienced aggressions: A seven-year longitudinal study.

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doi: 10.1192/j.eurpsy.2024.720

**Introduction:** Suicide is a serious and complex public health issue that affects millions of people worldwide. Among the most

vulnerable populations are homeless individuals (HIs), whose suicide rate is significantly higher than that of the general population.

**Objectives:** The aim of this study was to analyze mortality and suicidal behavior in a cohort of HIs during a seven-year follow-up. Additionally, the study sought to identify variables linked to mortality in this population.

**Methods:** The study was conducted in the province of Girona, Spain, and included 154 HIs who were literally experiencing homelessness. Self-report questionnaires were used to gather sociodemographic data, assess suicide risk, and measure the severity of substance dependence. The follow-up was carried out between 2015 and 2022, collecting data on mortality, suicide attempts, episodes of overdose, and violence experienced from public health services (psychiatric and primary health care services).

**Results:** During the seven-year follow-up, 23 individuals (14.3% of the sample) passed away, with an average age at the time of death of 52.6 years. The main causes of death were cancer, suicide (excluding overdose), and accidental overdose. Methods used for suicide included drug overdose, jumping, and vein slashing. All deceased individuals had scores above the threshold on the Plutchik Suicide Risk Scale and had reported previous suicide attempts.

Individuals who experienced violence during the follow-up period exhibited more severe suicidal ideation, more suicide attempts, and more non-lethal overdose episodes. Substance dependence, particularly cocaine dependence and dual pathology, was significantly associated with higher mortality.

**Conclusions:** This study reveals a high mortality rate among HIs, especially due to suicide and accidental overdose. The most significant variables related to mortality were suicidal ideation, the number of previous non-lethal overdoses, and substance use disorders, with cocaine dependence being prominent. The results underscore the need for specific prevention and treatment programs to address suicide risk factors and improve the mental health of homeless individuals. The importance of conducting interventions in specialized centers that detect and address suicide risk in this vulnerable population is also emphasized.

**Disclosure of Interest:** None Declared

## EPP0616

### Certain immune parameters may have a significant impact on suicidal behaviour - a naturalistic study among psychiatric in-patients

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doi: 10.1192/j.eurpsy.2024.721

**Introduction:** Several research already proved the role of certain immunological factors (neutrophil-lymphocyte (NLR), monocyte-lymphocyte (MLR) and platelet-lymphocyte (PLR) ratio, and C-reactive protein (CRP)) in the background of suicidal behaviour.

**Objectives:** The aim of this research was to study the association between routinely measurable low-grade inflammation parameters

and suicidal behaviour among patients in the acute psychiatric care setting.

**Methods:** The study population included psychiatric in-patients (N=100) consecutively treated with depressive disorders and/or suicidal behaviour in a University Clinic between December 1, 2020 and December 31, 2021. Three different patient-groups were generated based on their suicidal behaviour: suicide attempters (N=55) including *recent attempters* (N=36) and *past attempters* (N=19) and *non-suicidal patients* (N=45), who never had a suicide attempt. Basic socio-demographic data, the severity of depression and immunological parameters (white blood cell count: lymphocytes, monocytes, neutrophil, eosinophil, basophil granulocytes; thrombocytes; C-reactive protein) were recorded. Descriptive analyses and multivariate regression model were performed with RStudio version 4.2.3.

**Results:** CRP was significantly higher (2.00 vs. 1.00; p=0.007) in suicidal patients (N=55), however other immunological parameters did not differ significantly between the suicidal and the non-suicidal groups (NLR: 2.02 vs. 2.19; MLR: 0.22 vs. 0.11; PLR: 118 vs. 130). NLR and MLR showed significantly higher values (NLR: 2.83 vs. 1.93, p=0.021; MLR: 0.28 vs. 0.11, p=0.01) for those who currently attempted suicide (N=36) compared to the patients with no or past suicide attempt (N=64). In the regression analysis, the NLR and MLR showed significantly higher values in current suicide attempters even when gender, age, suicidal risk and severity of depression were included in the model. However, no significant differences were found when comparing current and past suicide attempters with the non-suicidal patients.

**Conclusions:** Despite the small number of cases in the samples, our results confirmed the association of certain immunological parameters (NLR, MLR) and acute suicidal behaviour. This relationship was found to be independent of depression and its severity. Our data suggest that, unlike the NLR and MLR parameters, the higher CRP value may not be related to acute suicide attempt, but rather to suicidal vulnerability, as a trait-marker. Markers of chronic systemic inflammation may help in the prediction of suicidal behaviour and in the development of new therapeutic options, however, further prospective studies are needed to identify the specific role of immunological factors in suicidal behaviour more precisely.

**Disclosure of Interest:** None Declared

EPP0617

Self-harm among Brazilian teenagers: scoping review

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doi: 10.1192/j.eurpsy.2024.722

**Introduction:** Non-suicidal self-injury among adolescents has grown in recent years, becoming a significant public health issue. The high social and psychological impacts related to it are often characterized by substance abuse and the development of anxiety and depression. Furthermore, emotional dysregulation and heightened reactivity are associated psychological characteristics.

**Objectives:** The aim of this paper was to do a scoping review, mapping the existing literature on self-harming behaviors among

Brazilian adolescents, considering their sociodemographic and clinical characteristics.

**Methods:** We followed the adapted PRISMA checklist for scoping reviews. We searched eight databases: APA PsycNet, LILACS, MEDLINE, PubMed, Embase, Web of Science, The Cochrane Library, and Scopus. The selection of studies was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement, where three independent researchers examined all titles and abstracts, applying the eligibility criteria. Accordingly, six studies were selected for descriptive analysis due to the variety of study types.

**Results:** A total of 2,032 youngsters were studied in the age range of 10 to 19 years-old, among over 15,000 reported cases of self-harming behaviors. Females accounted for 51.3% of the cases and had higher scores of impulsivity and loneliness to self-harming behavior (P ≤ 0.05). Alcohol use was evident across both genders but showed higher measures for males in both age groups (10 to 14 and 15 to 19 years, p < 0.001).

**Image:**

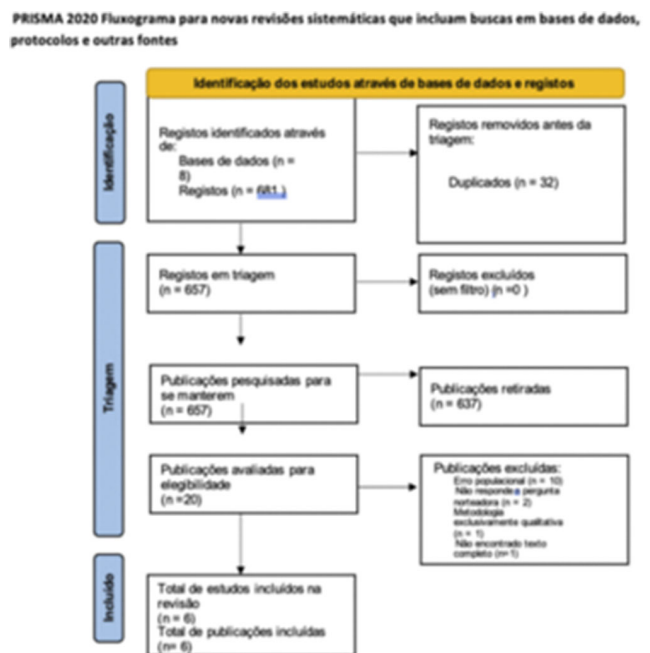


Image 2:

Quadro 1 - Fichamento dos artigos incluídos na revisão.

ARTIGO	LOCAL	PERÍODO	OBJETIVO	DADOS EXTRAÍDOS	PERÍODO
(Pattani, Lalloo, Bannat, Olatun, 2008)	(2) regiões administrativas de DF	2002	Investigar o papel dos fatores psicossociais, comportamentais e emocionais nas lesões autoinfligidas em adolescentes.	Sexo, faixa etária, Raça/etnia, Classe social, Métodos de lesão autoinfligida utilizados.	Injury, Int. J. Care Injured
(Francini, Silva, Araújo, Bello, 2018)	Divinópolis, MG	2016	Analisar a prevalência de autolesão entre escolares de 10 a 14 anos de idade e as características sociodemográficas, o nível de gravidade de autolesão, as variáveis psicossociais, e as funções ou motivos que levam a tal comportamento.	Sexo, idade média, faixa etária, escolaridade, Prevalência de crises ou mais autolesões no último ano, lesão na primeira autolesão, Autolesão com intenção suicida, Motivos para o comportamento de autolesão.	Arquivos Brasileiros de Psicologia
(Cunha, Breda, DeAguiar, 2022)	(1) região metropolitana de sul de Brasil	Jan/2016, Jan/2019	Investigar o perfil de adolescentes com comportamento suicidário e variáveis de risco e proteção relacionadas à intenção suicida relatada em um Centro de Atenção Psicossocial Independente de uma região metropolitana de sul do Brasil	Sexo, idade média, faixa etária, escolaridade, Orientação sexual, Autolesão com intenção suicida.	Distinção
(Costa et al., 2021)	Maracá, AL	2017	Analisar o perfil e a prevalência de autolesão não suicida em adolescentes e sua associação com impulsividade e solidão.	Sexo, idade média, Faixa etária, Escolaridade, Raça/etnia, Prevalência de crises ou mais autolesões no último ano, Quantidade de autolesões de lesão autoinfligida, Motivos para a autolesão, More com, Atividade, Satisfação relativa.	Journal de Pediatria
(Oliveira, Araújo, Farias, Menezes, 2020)	Brasil	2011-2014	Descrever o perfil sociodemográfico de adolescentes no Brasil mediante dados de seus pais: (i) as notificações realizadas no período de 2011 a 2014 e (ii) as informações hospitalares por idade, Ocorrência anterior, Motivos para a autolesão, Testes de intenção.	% de notificação de lesão autoinfligida por adolescentes, Sexo, Faixa etária, Raça/etnia, Presença de autolesão, Uso de álcool, Ocorrência anterior, Motivos para a autolesão, Testes de intenção.	Epidemiol. Serv. Saúde
(Cristóvão, Macambates, 2022)	Brasil	2011-2018	Analisar a incidência de notificações de lesão autoinfligida em adolescentes no ambiente escolar no Brasil, entre 2011 e 2018.	% de notificação de lesão autoinfligida por adolescentes, Sexo, Faixa etária, Raça/etnia, Zona de residência.	Epidemiol. Serv. Saúde