Research Square

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Suicidality in Autistic Adults Accessing Psychiatric Emergency Care

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Research Article

Keywords: Suicidality, autism, emergency department, self-harm, psychiatric comorbidities

Posted Date: November 16th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11501917/v1

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Additional Declarations: Competing interest reported. Meng-Chuan Lai is a Senior Editor of Molecular Autism. The authors declare no other conflict of interest.

Abstract

Background

Autistic individuals frequently present to emergency services with suicidality, yet evidence regarding how suicidality presents in autistic individuals and what factors are associated with suicide risk in emergency settings remains limited. This study aimed to characterize suicidality among autistic adults attending a psychiatric emergency department (PsyED) and identify factors associated with suicidality as a primary presenting reason as well as any suicidality identified during the visit.

Methods

We retrospectively reviewed PsyED records of autistic individuals aged ≥ 16 years presenting to the Centre for Addiction and Mental Health (Toronto, Canada) during 2018–2020. Outcomes included suicidality as a primary presenting reason and any-suicidality, defined as a primary presenting reason and/or current suicidal ideation, intent, or plan documented during structured assessment. Separate LASSO-selected multivariable mixed-effects logistic regression models accounted for repeated visits.

Results

Among 345 autistic individuals (1,027 visits), suicidality was a primary presenting reason in 42.9% of visits, while any-suicidality was documented in 55.0%. Depression, anxiety, and borderline personality disorders were common co-occurring conditions. Drug overdose was the most frequent prior suicide attempt method, and cutting was the most common self-harm behavior. Birth-assigned female sex, lifetime suicide-attempt count, and other specified personality disorders or traits were associated with greater odds of suicidality. Each additional lifetime suicide attempt was associated with greater odds of suicidality as a primary presenting reason ($_{adj}$OR 1.550, 95% CI 1.335–1.799) and any-suicidality ($_{adj}$OR 1.727, 95% CI 1.437–2.076). Intellectual disability was associated with lower odds of suicidality as a primary presenting reason ($_{adj}$OR 0.408, 95% CI 0.214–0.780), whereas self-harming behaviors were associated with greater odds of any-suicidality ($_{adj}$OR 2.550, 95% CI 1.339–4.858).

Limitations

The retrospective, single-center design and reliance on clinical documentation limit generalizability. Overlapping outcomes constrain comparisons between models, and the absence of a non-autistic comparison group limits comparisons between groups.

Conclusions

Suicidality was common among autistic adults attending PsyED and was not always identified as the primary presenting reason. Risks vary by sex, psychiatric complexity, and prior suicidal behaviors. Autism-informed and systematic suicide assessment, sex-sensitive triage, and continuity-focused care are essential for suicide prevention in emergency psychiatric care for autistic people.

Background

Autistic individuals are about 9 times more likely to present to emergency departments with psychiatric concerns relative to non-autistic individuals [1]. Despite this elevated service utilization, suicide risk assessments implemented in emergency care settings are typically derived from acute risk factors highlighted in non-autistic populations [2]. Although the need for tailored assessments for autistic populations has been raised, empirical data characterizing the phenomenology of acute suicidality presentations in autistic populations remain limited [3], constraining the evidence available to inform autism-sensitive risk assessment and clinical decision-making in emergency settings.

To date, two qualitative studies examining suicide risk factors among autistic individuals in acute-care contexts allude to differences in risk presentation and reduced clinician confidence in differentiating autism-related risk features [3, 4]. However, these studies do not provide quantitative support for risk factors of suicidality in autistic people receiving emergency care. Better characterization of these presentations and associated factors is therefore needed to inform the development and refinement of risk assessment approaches for autistic individuals in acute-care settings.

Recent systematic reviews estimate that approximately one-third of autistic people report lifetime suicidal ideation and nearly one-quarter report suicide attempts or behaviors [5, 6]. Suicide risk in autistic people seems to be multifactorial and shaped by psychiatric conditions, particularly depressive disorders, and psychosocial factors such as loneliness, reduced social connectedness, perceived burdensomeness, and reduced sense of belonging [6–9]. Autism-related characteristics may interact with these vulnerabilities [8, 9]. For example, recent Dutch registry-based findings identify the presence of multiple psychiatric diagnoses, loneliness, and greater autistic traits as correlates of lifetime suicidality in autistic adults [9]. Collectively, suicide risk among autistic individuals likely arises through the interactions of psychiatric conditions, social adversity, and autism-related characteristics, reflecting both shared and distinct risk processes compared with the non-autistic population.

However, little is known about whether and how these risk factors manifest during acute psychiatric crises, when suicide risk assessment and immediate clinical decision-making are particularly important. Most existing evidence on suicidality in autistic populations has been derived from community samples, population registries, and cross-sectional surveys rather than psychiatric emergency settings. Moreover, suicidality may not always be the primary presenting reason for autistic individuals seeking emergency psychiatric care, even when suicide risk is clinically relevant. Prior research suggests that many autistic individuals experience elevated baseline suicide risk yet may present to clinical services for other psychiatric or psychosocial concerns, potentially reflecting differences in help-seeking patterns or how

distress and suicidality are recognized in clinical settings [10, 11]. Consequently, relying primarily on the presenting complaint may not fully capture suicide risk in this population.

This study builds on two previous reports [12, 13] of psychiatric emergency department (PsyED) presentations among autistic adults, using the same retrospective cohort from the Centre for Addiction and Mental Health (CAMH) in Toronto, Ontario, Canada. These previous studies characterized general patterns of PsyED utilization [13], including suicidality as one of the primary presenting reasons, and examined differences in clinical presentations and service outcomes associated with documented borderline personality disorder (BPD) [12]. Extending beyond these findings, the present study focused specifically on the various clinical presentations and assessments of suicidality, using previously unexamined suicide-specific information collected during PsyED encounters. We aimed to first characterize suicidality presentations of autistic adults attending PsyED, with particular attention to differences between suicidality identified as a primary presenting reason and suicidal ideation, intent, or plans documented during subsequent structured suicide risk assessments. Existing structured suicide risk assessments used in emergency settings are primarily derived from factors identified in the general population [3, 14], yet it remains unclear how these factors present among autistic individuals. Rather than evaluating the validity of these assessments, we examined the associations between suicide-related factors captured during structured assessments and two outcomes: (1) suicidality as a primary presenting reason and (2) “any-suicidality”, defined as suicidality identified as a primary presenting reason and/or current suicidal ideation, intent, or plan documented during structured assessment. We further identified sociodemographic and clinical factors associated with each outcome through separate multivariable analyses. These findings could facilitate the development of comprehensive, autism-informed approaches to suicide risk assessment and clinical decision-making in acute psychiatric care.

Methods

Design and Data Source

This study used a retrospective chart review to examine PsyED visits of autistic individuals aged 16 years and above at CAMH, an academic psychiatric hospital that operates the largest PsyED in the Greater Toronto Area in Ontario, Canada. This study adhered to ethical standards of the national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2013, and was approved by the CAMH Research Ethics Board (REB #008/2020) with a waiver of informed consent due to the retrospective nature of the research, the impracticability of contacting former patients, and the minimal risk to privacy and patient welfare. All data were analyzed in de-identified form and did not affect clinical care.

Ontario operates a publicly funded, single-payer healthcare system in which hospital inpatient, emergency, and outpatient physician services are universally covered for permanent residents; non-residents may access care through reciprocal billing agreements, private insurance, or self-payment. The study population comprised autistic individuals aged 16 years and older with at least one PsyED visit

between January 1st, 2018 and December 31st, 2020. Eligible individuals were identified through CAMH's electronic medical record (EMR) system based on a formally recorded diagnosis of autism spectrum disorder (ASD; DSM-5 ASD or equivalent diagnoses under earlier DSM or ICD classifications) in outpatient, inpatient, or emergency encounters, documented in EMR by the time of data extraction (January 8th, 2021). ASD diagnoses may have been confirmed and recorded before, during, or after a given PsyED visit; the timing of diagnostic entry was unavailable to us. Treating clinicians may not have been aware of an individual's ASD diagnosis at the time of a specific PsyED visit. This study draws on the same cohort as our prior investigation of PsyED utilization of autistic individuals, where detailed data structure and chart record extraction procedures are described [13].

For context, a typical visit is as follows: after the patient is registered, they are seen by a triage nurse to elicit presenting concerns. The nurse will assign "presenting complaints" based upon the Canadian Emergency Department Information System (CEDIS) Presenting Complaints List. The "complaint" that directly highlights suicidality is "suicidal thoughts and/or behaviors." After triage, the patient may be assessed by a nurse while they wait for a physician assessment; they otherwise are seen by a resident or staff physician. In assessment, all patients are asked about suicidality, which can be documented in the History of Presenting Illness, structured suicide risk assessment (completed within 24 hours presenting to PsyED), Mental Status Exam, and/or Impression & Plan sections of the chart.

Outcome Variables

The primary presenting reason(s) for each PsyED visit were classified into 11 mutually non-exclusive categories based on the chart record documentation: suicidality, aggressive behavior, self-harm, mood-related symptoms, anxiety-related symptoms, psychotic symptoms, substance intoxication, substance withdrawal, medication-related concerns, housing-related issues, and other reasons not captured by the preceding categories. A visit could be assigned more than one primary reason when multiple reasons were documented.

The first outcome variable for our planned analyses was suicidality as a primary presenting reason. Furthermore, a composite variable of any documented suicidality ("any-suicidality") was created to capture a broader range of suicide-related presentations. This "any-suicidality" was deemed present if either/both of the following was documented: (1) suicidality as a primary presenting reason, and/or (2) reporting of current suicidal ideation, suicidal intent, or suicide plan as recorded in the structured suicide risk assessment.

Demographic Variables

Chronological age and birth-assigned sex were obtained from the demographic section of the EMR using each individual's medical record number. Information on gender identity, sexual orientation, ethnicity, educational attainment, primary language (i.e., the language by which the individual was most

comfortable communicating with healthcare providers), and family income was self-reported according to categories specified in the hospital's standard intake form at each visit.

Clinical Variables

The presence of intellectual disability (ID), attention-deficit/hyperactivity disorder (ADHD), and other lifetime and/or current mental health diagnoses was identified from the text-based clinical chart (e.g., the History of Present Illness section) and diagnostic codes. Mental health diagnoses included depressive disorders, anxiety disorders, psychotic disorders (combining schizophrenia, schizoaffective disorder, and other psychotic disorders), obsessive-compulsive disorder (OCD), borderline personality disorder (BPD), other specified personality disorders or traits (other PD; including mixed or unspecified personality disorder and cluster A, B, or C traits), eating disorders, post-traumatic stress disorder (PTSD), bipolar disorders, substance use disorders (SUD), and other mental health or neurodevelopmental conditions not captured above (e.g., Tourette's disorder, learning disabilities, fetal alcohol spectrum disorder, genetic syndromes, sensory processing disorder, language impairment, oppositional defiant disorder, sleep–wake disorders, somatic symptom disorders, and paraphilic disorders). For comparing psychiatric diagnoses and lifetime suicide attempts between unique autistic individuals, the last visit made by the individual within the three-year study period was used, capturing the most up-to-date diagnostic and lifetime suicide attempt information. Consistent with our previous reports [12, 13], we compared sociodemographic characteristics between unique autistic individuals using data from their first PsyED visit during the three-year period.

Variables characterizing suicide risk were extracted from the structured suicide risk assessment of each visit (Supplementary Figure S1). This assessment documented suicide methods, self-harm methods, co-occurring mental health diagnoses, current suicidal ideation, intent, and plan, recent loss or bereavement, lifetime suicide attempts, and family history of suicide, based on information provided by patients (and/or collateral information) and recorded by clinicians. Family history of suicide, defined as any family member died by suicide, was coded as binary (present vs. absent). Recent loss or bereavement was coded as binary (present vs. absent). Lifetime suicide attempts were coded as a count variable reflecting the number of prior attempts. Suicide attempt methods were categorized as overdose, firearm or other weapon, sharp objects, hanging, asphyxiation, jumping from height, jumping in front of traffic or a train, none or not mentioned, or other methods. From the structured suicide risk assessment and the broader chart record of each visit, self-harm behaviors were classified into head banging, biting, burning, cutting, hair pulling, hitting, overdose, and skin picking or scratching.

Statistical Analysis

Descriptive statistics summarized the sociodemographic and clinical characteristics of all PsyED visits as well as variables derived from the structured suicide risk assessment, stratified by whether suicidality was a primary presenting reason. Differences in sociodemographic characteristics between visits with and without suicidality as a primary presenting reason were evaluated using chi-squared tests. To

account for multiple testing, p-values were adjusted using the Benjamini–Hochberg procedure to keep false discovery rate (FDR) at 0.05.

To examine factors associated with suicidality, candidates were drawn from past literature on suicide risk factors in autistic individuals [3, 4, 6, 8, 15–17], including age, birth-assigned sex, ID status, family history of suicide, recent experiences of loss or bereavement, lifetime suicide attempts, self-harm behaviors, and psychiatric diagnoses. Two binary outcomes were examined separately: (1) suicidality as a primary presenting reason to the PsyED and (2) any-suicidality. As an individual could have multiple PsyED visits during the three-year study period, mixed-effects logistic regression models were used to account for the non-independence of repeated observations. All models included a random intercept for persons to capture within-individual clustering of visits. To identify a parsimonious set of predictors of each outcome, we used L-1 penalized mixed-effects logistic regression (LASSO) implemented via the *glmmLasso* package. The penalty parameter (λ) was selected using Bayesian Information Criterion (BIC) across a predefined grid. Predictors retained by the LASSO were subsequently entered into a multivariable, unpenalized mixed-effects logistic regression model with a person-level random intercept (via glmer function, *lme4* package) to obtain interpretable effect estimates while accounting for repeated visits. Continuous variables were standardized prior to penalization. Adjusted odds ratios ($_{adj}$ORs) with 95% confidence interval (95% CI) were estimated from multivariable mixed-effects logistic regression models including all retained independent variables. P-values were adjusted across regression models using the Benjamini–Hochberg procedure to keep FDR at 0.05. All analyses were conducted using R (version 2025.05.1 + 513).

Results

Sociodemographic Characteristics

During 2018–2020, 345 unique autistic individuals aged 16–63 years presented across 1,027 PsyED visits to CAMH, Toronto, Canada. Suicidality was documented as a primary presenting reason in 42.9% (441) of visits (Table 1, Supplementary Table S1), representing 143 unique autistic individuals. Furthermore, 55.0% (565) of visits were deemed to have “any-suicidality”.

Being birth-assigned female ($q < 0.001$) and being non-cisgender ($q = 0.027$) were significantly associated with visits in which suicidality was a primary presenting reason while other sociodemographic characteristics (age, sexual orientation, ID, and primary language) were not (Table 1). Across visits with “any-suicidality” (n = 565), none of the sociodemographic characteristics were significantly associated with visits in which suicidality was a primary presenting reason.

Clinical Profiles

Across PsyED visits with suicidality as a primary presenting reason, the median number of co-occurring mental health diagnoses for an individual was 2, with a mean of 2.58 (standard deviation, SD = 1.48)

(Figure 1A; diagnoses grouped under the “other mental health or neurodevelopmental conditions not captured above” category were counted separately if multiple conditions were present).

When examined at the visit level, the most common mental health diagnoses were BPD, depressive disorders, and psychotic disorders (including schizophrenia, schizoaffective disorder, or other psychotic disorders) (Figure 1B). At the unique-individual level, the three most prevalent diagnoses were depressive disorders, anxiety disorders, and BPD (Figure 1D).

When examining the structured suicide risk assessment of current suicidal ideation, intent, and plan among visits with suicidality as a primary presenting reason (Table 1), 314 visits (71.2% of visits with suicidality as a primary presenting reason) reported suicidal ideation, whereas 80 visits (18.1%) did not; 92 visits (20.9%) indicated suicidal intent, while 301 visits (68.3 %) documented no suicidal intent; 142 visits (32.2%) documented suicide plan, while 251 visits (56.9%) indicated no presence of a plan. Meanwhile, for the 586 visits with primary presenting reasons other than suicidality, 123 visits (21.0% of visits with primary presenting reasons other than suicidality) reported suicidal ideation, 11 visits (1.9 %) endorsed suicidal intent, and 16 visits (2.7%) endorsed a suicide plan. Using the last visit from each autistic individual, the median number of lifetime suicide attempts was 2 (Figure 1C).

Most visits with suicidality as a primary presenting reason (340; 77.1% of visits with suicidality as a primary presenting reason) documented prior suicide attempts, while 52 visits (11.8%) indicated no prior attempt; in 49 visits (11.1%), attempt history was unknown or could not be assessed. Among visits with reasons other than suicidality, 208 (35.5% of visits with primary presenting reasons other than suicidality) had a document prior suicide attempt (Table 2). Drug overdose was the most frequently reported method of past suicide attempt (159 visits; 28.1% of visits with any-suicidality), followed by use of sharp objects (73 visits; 12.9%).

Self-harm behaviors were documented in 94 (21.3%) of visits with suicidality as a primary presenting reason, while 189 visits (42.9%) reported no self-harm behavior; the remainder were undocumented or unable to be assessed. Among visits with reasons other than suicidality, 66 (11.3%) had documented self-harm behaviors (Table 2). Cutting (63 visits; 11.2% of visits with any-suicidality) was the most reported self-harm behavior, followed by head banging (12 visits; 2.1%).

Regarding recent loss or bereavement, 254 visits (57.6%) of visits with suicidality as a primary presenting reason reported none, 64 visits (14.5%) documented recent loss, and 123 visits (27.9%) had missing, unknown, or un-assessable information. Among visits with reasons other than suicidality 382 (65.2%) reported none, while 47 (8.0%) documented recent loss (Table 2). For family history of suicide, using the last visits, 5 individuals (3.5% of 143 individuals who made up visits with suicidality as a primary presenting reason) documented a family history of suicide, while 54 individuals (37.8%) reported no such history; in 49 individuals (34.3%), family history was unknown or not assessable. For individuals who made up of visits with reasons other than suicidality, 7 individuals (3.5% of the 202 individuals who made up visits with reasons other than suicidality) documented a family history of suicide, while 143

individuals (70.8%) reported no such history; in 87 individuals (43.1%), family history was unknown or not assessable.

Factors Associated with Suicidality as a Primary Presenting Reason to PsyED

Using penalized mixed-effects logistic regression with BIC-based selection (LASSO), the following factors were retained: age, birth-assigned sex, ID, family history of suicide, self-harming behaviors, lifetime suicide attempts, OCD, BPD, other PD, PTSD, and SUD. These variables were entered simultaneously into a multivariable mixed-effects logistic regression model.

In the adjusted model (Figure 2A), birth-assigned female autistic individuals had significantly greater odds of having suicidality as a primary presenting reason compared with male autistic individuals ($_{adj}$OR 1.995, 95% CI 1.180–3.374; q = 0.027). In contrast, the presence of ID was associated with reduced odds ($_{adj}$OR 0.408, 95% CI 0.214–0.780; q = 0.025).

A history of suicide attempts emerged as a strong predictor: each additional lifetime attempt was associated with a 55% increase in the odds of having suicidality as a primary presenting reason ($_{adj}$OR 1.550, 95% CI 1.335–1.799; q < 0.001). Additionally, other specified personality disorders or traits were associated with substantially elevated odds ($_{adj}$OR = 5.290, 95% CI 1.847–15.155; q = 0.011).

Factors Associated with Any-Suicidality

Using penalized mixed-effects logistic regression with BIC-based selection (LASSO), the following factors were retained: age, birth-assigned sex, ID, recent loss or bereavement, self-harming behaviors, lifetime suicide attempts, BPD, other PD, PTSD, eating disorders, and SUD. These variables were entered simultaneously into a multivariable mixed-effects logistic regression model.

In the adjusted model (Figure 2B), birth-assigned female autistic individuals had significantly greater odds of any-suicidality compared with male autistic individuals ($_{adj}$OR 2.194, 95% CI 1.157–4.161; q = 0.039). Self-harming behaviors were also associated with greater odds of any-suicidality ($_{adj}$OR 2.550, 95% CI 1.339–4.858; q = 0.018). Each additional lifetime suicide attempt was associated with a 72.7% increase in the odds of any-suicidality ($_{adj}$OR 1.727, 95% CI 1.437–2.076; q < 0.001). Additionally, other specified personality disorders or traits were associated with substantially elevated odds ($_{adj}$OR 5.510, 95% CI 1.550–19.590; q = 0.025).

Discussion

In this large PsyED cohort of autistic adults, suicidality served as a primary presenting reason in 42.9% of visits, frequently involving autistic individuals with the diagnoses of depression, anxiety, and BPD. Notably, among visits in which suicidality was not identified as the primary presenting reason, approximately one in five involved endorsement of current suicidal ideation during subsequent structured suicide risk assessment, highlighting discrepancies between initial presenting reasons and

suicidality identified during emergency psychiatric evaluation. Across both suicidality as a primary presenting reason and the any-suicidality outcome, birth-assigned female sex, a greater number of lifetime suicide attempts, and other specified personality disorders or traits were consistently associated with greater odds of suicidality in multivariable mixed-effects models accounting for repeated visits. Lifetime suicide attempt history demonstrated a strong dose–response relationship, with each additional prior attempt associated with a 55% increase in the odds of suicidality as a primary presenting reason and a 73% increase in the odds of any-suicidality. In contrast, ID was associated with lower odds of suicidality as a primary presenting reason, but this association was not statistically significant for the any-suicidality outcome. Self-harming behaviors were significantly associated with any-suicidality but not with suicidality as a primary presenting reason. Together, these findings highlight both shared and outcome-specific clinical correlates of suicidality among autistic adults presenting for emergency psychiatric care.

Our findings on the high prevalence of suicidality among autistic adults presenting to PsyED align with the few prior population-based findings from the United States [14, 18]. Population-based data from the New York State [18] and national samples [14] indicate that autistic youth and adults are more likely than non-autistic individuals to present with suicidal ideation. This elevated risk may reflect the combined impact of co-occurring psychiatric conditions, social and interpersonal difficulties, and barriers to timely and appropriate mental healthcare, which can contribute to escalation of distress and crisis-driven service use [14, 18]. Altogether, these results highlight the need for early and targeted support for autistic youth and adults before they reach a crisis point [19].

While > 40% of PsyED visits of autistic adults in this dataset had suicidality as a primary presenting reason, when information gathered in the subsequent structured suicide risk assessment is considered, the rate of any-suicidality increased to 55%. Among those with suicidality as a primary presenting reason, a notable proportion no longer endorsed active risk in the structured suicide assessment (18.1% did not endorse suicidal ideation, 68.3% did not endorse suicidal intent, 56.9% did not endorse a suicide plan). Like general population, suicidal ideation is more prevalent than intent or plan [20, 21]. However, some autistic individuals might not have communicated suicidality during the structured assessment due to differences in communication style or how assessment questions were asked, whereas others might have experienced rapid de-escalation or increased feeling of safety after arriving at the PsyED. Meanwhile, among autistic adults presenting to the PsyED for reasons other than suicidality, structured suicide risk assessment still identified substantial risks: 21.0% reported suicidal ideation, 1.9% endorsed suicidal intent, and 2.7% endorsed a suicide plan. Moreover, with the high prevalence of documented prior suicide attempt(s) in both groups, these results suggest that suicidality might be under-recognized at triage. Overall, these findings strongly support including routine suicide risk assessment in emergency psychiatric care for autistic adults, regardless of the presenting reason, and highlight the need for autism-informed suicide assessment and management pathways [22, 23]. An absence of endorsement during either initial triage or later structured assessment should not be interpreted as an absence of clinically meaningful suicide risk for autistic individuals visiting PsyED. Tailored suicide risk assessment for autistic individuals would particularly benefit from multi-modal, complementary information

gathering to aid personalized formulation and clinical decision making. Emerging research is increasingly focused on adapting suicide screening, assessment, and management approaches for autistic people, with recent reviews emphasizing community-partnered and multifaceted approaches while identifying tailored assessment as an important ongoing research priority [24, 25].

PsyED visits by birth-assigned female autistic individuals were more likely to involve suicidality as a primary presenting reason and any-suicidality, consistent with prior research across diverse samples [16, 17, 26, 27]. A Danish population-based study reported a more than fourfold higher incidence of suicide attempts among autistic females than males, whereas the sex difference was substantially smaller in non-autistic populations [17]. A Canadian population-based study reported greater relative increases in self-harm events among autistic females more so than autistic males [16], and a global meta-analysis found higher suicide risk among autistic females than males [26]. However, these observed sex differences vary across countries and study designs, also reflecting systemic differences in diagnosis, documentation, and access to care [28]. Of note, psychiatric conditions appear to be primary drivers of this elevated risk [16, 17, 27]. Additional contributors, not available in our data, may include delayed autism diagnosis, barriers to support, and camouflaging, which might compound challenges associated with being both autistic and female [29]. Similarly, PsyED visits by non-cisgender autistic individuals were more likely to involve suicidality as a primary presenting reason, consistent with prior research in the general population [30]. Emergency triage and psychiatric care for autistic people should therefore incorporate sex-informed and gender-informed risk evaluation, including attention to sex-related and gender-related psychiatric conditions, psychosocial factors, and suicide history.

Although suicidality was a primary presenting reason in some visits by autistic adults with ID, ID was associated with lower odds of suicidality as a primary presenting reason after accounting for repeated visits and other clinical characteristics. A similar direction of association was observed for any-suicidality, although not statistically significant. This individual-level pattern is consistent with prior findings from this cohort [13] and population-based studies [8, 16]. Meanwhile, a subset of autistic individuals with ID might have recurrent suicidality-related needs that led to frequent visits, indicating elevated risks in a vulnerable autistic ID subgroup [31, 32]. The individual-level lower odds might also reflect differences in help-seeking pathways, caregiver involvements, and clinical recognition, and thus should not be directly interpreted as evidencing lower underlying risks. Emerging evidence shows suicidality in individuals with ID or autism is often under-recognized or misinterpreted, partly due to others' assumptions about their understanding of suicide and communication of distress [33]. Adapted communication strategies, caregiver-informed assessments, and developmentally appropriate clinical approaches and tools are therefore essential to capture suicide risks that may not be verbally articulated. Practical resources, such as the H-CARDD Emergency Care Toolkit, offer guidance for adapting communication and incorporating individualized patient and caregiver information into emergency care [34].

Descriptively contrasting the two suicidality outcomes showed some differences in their associated clinical factors. Although ID was associated with lower odds of suicidality as a primary presenting

reason, this association was not statistically significant for the broader any-suicidality outcome. Conversely, documented self-harming behaviors were significantly associated with any-suicidality but not with suicidality as a primary presenting reason. These patterns may reflect differences between factors associated with suicidality identified at triage and those associated with suicidality inclusive of findings documented further during structured assessment. However, because these two outcomes overlap and were examined using separately selected multivariable models, differences in statistical significance do not necessarily indicate differences in the underlying associations. Further research examining the “hidden” suicidality identified specifically during structured assessment among those presenting for other reasons may help clarify whether distinct clinical factors contribute to its profile of presentation and recognition.

Each lifetime suicide attempt was associated with a 55% increase in the odds of suicidality as a primary presenting reason to PsyED and 73% increase in the odds of any-suicidality. In the general population, multiple prior attempts are among the strongest predictors of future attempts, severe clinical presentations, and long-term suicide risk [35–37]. Our findings demonstrate similar vulnerability in the autistic population. Given the enduring risk associated with a history of suicide attempts, lifetime attempts should inform ongoing risk formulation, proactive follow-up, and individualized safety planning. For example, the Autism Adapted Safety Plans (AASPs), co-developed with autistic people, have demonstrated feasibility and acceptability in a pilot randomized controlled trial and represents a promising autism-informed approach to supporting ongoing suicide prevention [38].

We noted other specified personality disorders or traits to be associated with increased odds of suicidality as a primary presenting reason to PsyED and with any-suicidality, consistent with the broader evidence linking personality disorders to elevated suicide risk [39], including higher suicide mortality in both autistic and non-autistic populations [16]. Furthermore, the most common co-occurring mental health diagnoses for individuals visiting with suicidality as a primary presenting reason were depression, anxiety, and BPD, consistent with systematic review findings [8]. Overall, these observations suggest that personality psychopathology is an important and potentially underrecognized contributor or correlate to suicidality in autistic adults. They highlight the need for transdiagnostic understanding, extending beyond descriptive suicide assessments to including personality-informed formulation that also considers one’s neurodevelopmental background. Overlapping features such as self and emotion dysregulation, interpersonal difficulties, impulsivity, ruminative or rigid thinking, highlight the need for iterative diagnostic formulation to assess risk [40]. An extended clinical formulation improves patient safety, tailors management, and supports appropriate referrals, while enhanced clinician training facilitates timely access to evidence-based or evidence-informed interventions, including adapted dialectical behavior therapy-informed approaches [41].

Documented self-harming behaviors were associated with increased odds of any-suicidality, consistent with previous evidence linking self-harm to suicidal thoughts and behaviors among autistic individuals [42, 43]. Although this association was not statistically significant for suicidality as a primary presenting reason, its association with any-suicidality highlights the importance of systematically assessing self-

harm history alongside current suicidal ideation, intent, and plan. The documented self-harm and suicide attempt methods in our cohort are therefore particularly clinically important and informative. Cutting was the most frequent self-harm method among visits with suicidality as a primary presenting reason, followed by head-banging, mirroring prior reports in autistic populations [44, 45]. In autistic people, self-cutting may signal particularly elevated risk, as it has been associated with increased likelihood of subsequent suicide death [44]. Clinical studies of autistic youth also report high rates of head-hitting and cutting as forms of non-suicidal self-injury, and suicidal ideation frequently involves thoughts of death by cutting [45]. Crucially, drug overdose was the most commonly reported method in prior suicide attempts, a pattern also observed in the general population [46]. These findings highlight the need for method-specific risk assessment and autism-informed safety planning, including means safety counselling, evaluation of access to medications and substances, and targeted management of self-injury behaviors [38].

Limitations

Several limitations should be considered. As with any chart-review studies, generalizability could be limited because the data came from a specialized urban psychiatric hospital. The EMR data confirmed whether an autism diagnosis was formally made but did not specify when and in what service setting it was assigned. Chart-based psychiatric diagnostic documentation does not guarantee systematic diagnostic assessments and may therefore under- or over-estimate the presence of certain psychiatric diagnoses. In particular, the documentation of BPD and other specified personality disorders or traits (Other PD) in an emergency care setting could heavily involve subjective clinician impressions; the heterogeneity of the Other PD category further limited interpretability. The two suicidality outcomes were overlapping (i.e., any-suicidality included suicidality documented as a primary presenting reason), so differences between the regression models should not be interpreted as evidence of distinct risk profiles. The retrospective nature of the data and reliance on clinical documentation also limited our ability to distinguish differences in underlying suicidality from differences in its recognition or documentation during structured emergency assessment. Finally, the absence of a non-autistic comparison group, owing to study scope and resource limitations, precludes direct comparisons of suicidality profiles in the PsyED setting.

Conclusions

Suicidality was identified in more than half of visits of autistic adults to this urban, specialized and large PsyED when structured suicide assessment findings were considered together with presenting reasons at triage, despite it being the primary presenting reason in fewer than half. Among visits with a different primary presenting reason, one in five endorsed suicidal ideation on structured assessment; among those who did present primarily for suicidality, one in five did not subsequently endorse suicidal ideation. These contrasts underscore that neither triage nor structured risk assessment alone can be taken as reassurance of safety. Furthermore, suicide risk is not evenly distributed: birth-assigned female sex and lifetime attempt history were independently associated with presenting to PsyED due to suicidality and

any-suicidality. These findings support three clinical priorities in emergency psychiatric care for autistic adults: universal structured-but-tailored suicide risk assessment regardless of presenting reason; means safety counselling with attention to medication access; and systematic use of lifetime attempt history as a risk-stratification metric.

Abbreviations

PsyED
psychiatric emergency department
CAMH
Centre for Addiction and Mental Health
EMR
electronic medical record
ASD
autism spectrum disorder
CEDIS
Canadian Emergency Department Information System
ID
intellectual disability
ADHD
attention-deficit/hyperactivity disorder
OCD
obsessive-compulsive disorder
BPD
borderline personality disorder
Other PD
other specified personality disorders or traits
PTSD
post-traumatic stressed disorder
SUD
substance use disorders
$_{adj}$OR
adjusted odds ratio
95% CI
95% confidence interval
SD
standard deviation
BIC
Bayesian Information Criterion
FDR

false discovery rate

Declarations

Ethics Approval and Consent to Participate

This retrospective chart-review study was approved by the CAMH Research Ethics Board (REB #008/2020) with a waiver of informed consent due to the retrospective nature of the research, the impracticability of contacting former patients, and the minimal risk to privacy and patient welfare. All data were analyzed in de-identified form and did not affect clinical care.

Consent for Publication

Not applicable

Availability of data and materials

The data are not publicly available due to privacy and ethical restrictions.

Competing Interests

Meng-Chuan Lai is a Senior Editor of *Molecular Autism*. The authors declare no other conflict of interest.

Funding

This study received funding from the Innovation Fund of the Alternative Funding Plan for the Academic Health Sciences Centres of Ontario (to Meng-Chuan Lai; CAM-20-004, CAM-20-005), the Canadian Institutes of Health Research Sex and Gender Science Chair (to Meng-Chuan Lai; GSB 171373), and the Canadian Institutes of Health Research Doctoral Research Award (to Ching-Hua Julie Lee; DTA-210475).

Authors' Contributions

C.-H.J.L. contributed to conceptualization, data curation, formal analysis, investigation, validation, visualization, article drafting and revisions. V.C. contributed to conceptualization, data curation, validation, and article revisions. L.L.Y.M. contributed to conceptualization, data curation, investigation, validation, article drafting and revisions. M.F. contributed to data curation and article drafting. C.C. contributed to data curation, project administration, and article drafting. C.P.-T. contributed to article drafting. V.L. contributed to article drafting. A.M. contributed to article revisions. P.B. contributed to data curation, methodology, validation, and project administration. P.J. contributed to conceptualization, methodology, and data curation. J.Z. contributed to conceptualization. S.H.A. contributed to conceptualization and article revisions. H.-Y.L. contributed to conceptualization. A.S. contributed to conceptualization and methodology. Y.L. contributed to conceptualization, methodology, resources, project administration, and article revisions. M.-C.L. contributed to conceptualization, data curation,

methodology, investigation, formal analysis, article drafting and revisions, resources, project administration, funding acquisition, and supervision.

Acknowledgments

The authors would like to thank the following colleagues who provided substantial support for data extraction and organization: Marina Charalampopoulou, Nishka Gupta, Abby Kazdan, Olivia Mendoza, Rianna Sarbajna, Areeba Sharafuddin, and Nahid Sultana. We would also like to thank Michelle Dawson for valuable comments on the manuscript.

References

1. Kalb LG, Stuart EA, Vasa RA. Characteristics of psychiatric emergency department use among privately insured adolescents with autism spectrum disorder. Autism. 2019;23(3):566–73.
2. Ryan EP, Oquendo MA. Suicide Risk Assessment and Prevention: Challenges and Opportunities. Focus (Am Psychiatr Publ). 2020;18(2):88–99.
3. Cervantes PE, Palinkas LA, Conlon GR, Richards-Rachlin S, Sullivan KA, Baroni A, et al. Improving Emergency Department Care for Suicidality in Autism: Perspectives from Autistic Youth, Caregivers, and Clinicians. J Autism Dev Disord. 2025;55(8):2820–33.
4. Jachyra P, Lai MC, Zaheer J, Fernandes N, Dale M, Sawyer A, et al. Suicidal Thoughts and Behaviours Among Autistic Adults Presenting to the Psychiatric Emergency Department: An Exploratory Chart Review. J Autism Dev Disord. 2022;52(5):2367–75.
5. Newell V, Phillips L, Jones C, Townsend E, Richards C, Cassidy S. A systematic review and meta-analysis of suicidality in autistic and possibly autistic people without co-occurring intellectual disability. Mol Autism. 2023;14(1):12.
6. O'Halloran L, Coey P, Wilson C. Suicidality in autistic youth: A systematic review and meta-analysis. Clin Psychol Rev. 2022;93:102144.
7. Mournet AM, Wilkinson E, Bal VH, Kleiman EM. A systematic review of predictors of suicidal thoughts and behaviors among autistic adults: Making the case for the role of social connection as a protective factor. Clin Psychol Rev. 2023;99:102235.
8. Kim JH, Lee J, Shim S, Cheon KA. Association of self-harm and suicidality with psychiatric co-occurring conditions in autistic individuals: a systematic review and pooled analysis. EClinicalMedicine. 2024;77:102863.
9. Bentum JV, Sijbrandij M, Huibers M, Begeer S. Occurrence and predictors of lifetime suicidality and suicidal ideation in autistic adults. Autism. 2024;28(9):2282–94.
10. Sabo A, Robinson J, Bellairs-Walsh I, Taimre L, Nguyen W, Phillips L, et al. Experiences of self-harm, suicidal ideation and mental health care among autistic youth. Autism. 2026;30(1):74–83.
11. Camm-Crosbie L, Bradley L, Shaw R, Baron-Cohen S, Cassidy S. People like me don't get support': Autistic adults' experiences of support and treatment for mental health difficulties, self-injury and

suicidality. Autism. 2019;23(6):1431–41.

12. Lee CJ, Man LLY, Morra A, Pace-Tonna C, Castelino C, Courchesne V, et al. Psychiatric Emergency Visits of Autistic Adults With or Without Documented Borderline Personality Disorder. Autism Res. 2026;19(1):e70148.
13. Courchesne V, Frayne M, Castelino C, Luk V, Man LLY, Lee C-HJ, et al. Times of Need: Psychiatric Emergency Department Presentations in Autistic Adults. Autism in Adulthood; 2026.
14. Cervantes PE, Brown DS, Horwitz SM. Suicidal ideation and intentional self-inflicted injury in autism spectrum disorder and intellectual disability: An examination of trends in youth emergency department visits in the United States from 2006 to 2014. Autism. 2023;27(1):226–43.
15. Hirvikoski T, Boman M, Chen Q, D'Onofrio BM, Mittendorfer-Rutz E, Lichtenstein P, et al. Individual risk and familial liability for suicide attempt and suicide in autism: a population-based study. Psychol Med. 2020;50(9):1463–74.
16. Lai MC, Saunders NR, Huang A, Artani A, Wilton AS, Zaheer J, et al. Self-Harm Events and Suicide Deaths Among Autistic Individuals in Ontario, Canada. JAMA Netw Open. 2023;6(8):e2327415.
17. Kolves K, Fitzgerald C, Nordentoft M, Wood SJ, Erlangsen A. Assessment of Suicidal Behaviors Among Individuals With Autism Spectrum Disorder in Denmark. JAMA Netw Open. 2021;4(1):e2033565.
18. Giannouchos TV, Beverly J, Christodoulou I, Callaghan T. Suicide and non-fatal self-injury-related emergency department visits among individuals with autism spectrum disorder. Autism. 2023;27(7):1983–96.
19. Badgett NM, Sadikova E, Menezes M, Mazurek MO. Emergency Department Utilization Among Youth with Autism Spectrum Disorder: Exploring the Role of Preventive Care, Medical Home, and Mental Health Access. J Autism Dev Disord. 2023;53(6):2274–82.
20. Nock MK, Green JG, Hwang I, McLaughlin KA, Sampson NA, Zaslavsky AM, et al. Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents: results from the National Comorbidity Survey Replication Adolescent Supplement. JAMA Psychiatry. 2013;70(3):300–10.
21. Sunderland M, Batterham PJ, Calear AL, Chapman C, Slade T. Factors associated with the time to transition from suicidal ideation to suicide plans and attempts in the Australian general population. Psychol Med. 2023;53(1):258–66.
22. Schwartzman JM, Smith JR, Bettis AH. Safety Planning for Suicidality in Autism: Obstacles, Potential Solutions, and Future Directions. Pediatrics. 2021;148(6).
23. Rodgers J, Goodwin J, Nielsen E, Bhattarai N, Heslop P, Kharatikoopaei E, et al. Adapted suicide safety plans to address self-harm, suicidal ideation, and suicide behaviours in autistic adults: protocol for a pilot randomised controlled trial. Pilot Feasibility Stud. 2023;9(1):31.
24. Reid M, Delgado D, Heinly J, Kiernan B, Shapiro S, Morgan L, et al. Suicidal Thoughts and Behaviors in People on the Autism Spectrum. Curr Psychiatry Rep. 2024;26(11):563–72.
25. Orr N, Shaw L, Briscoe S, Lawal HM, Martin-Pintado C, Turner M, et al. The effectiveness, cost-effectiveness and experiences of interventions to reduce suicidality for autistic people: A scoping

review. Autism. 2026;30(3):561–73.

26. Santomauro DF, Hedley D, Sahin E, Brugha TS, Naghavi M, Vos T, et al. The global burden of suicide mortality among people on the autism spectrum: A systematic review, meta-analysis, and extension of estimates from the Global Burden of Disease Study 2021. Psychiatry Res. 2024;341:116150.
27. Martini MI, Kuja-Halkola R, Butwicka A, Du Rietz E, D'Onofrio BM, Happe F, et al. Sex Differences in Mental Health Problems and Psychiatric Hospitalization in Autistic Young Adults. JAMA Psychiatry. 2022;79(12):1188–98.
28. Kirby AV, Conner CM, Mazefsky CA. Are autistic females at greater risk of suicide? A call for clarity to advance suicide prevention for the whole community. Autism Res. 2024;17(5):898–905.
29. Conde-Pumpido-Zubizarreta S, Cruz S, Pozo-Rodriguez M, Suarez-Rama JJ, Diaz-Hernandez A, Carracedo A, et al. The association between autism, camouflaging and anxiety with suicidal ideation in women. Front Psychol. 2025;16:1685845.
30. Erlangsen A, Jacobsen AL, Ranning A, Delamare AL, Nordentoft M, Frisch M. Transgender Identity and Suicide Attempts and Mortality in Denmark. JAMA. 2023;329(24):2145–53.
31. Hand BN, Boan AD, Bradley CC, Charles JM, Carpenter LA. Emergency department utilization and monetary charges in adolescents with autism spectrum disorder, intellectual disability, and a population comparison group. Autism Res. 2019;12(7):1129–38.
32. Marquis S, Lunsky Y, McGrail KM, Baumbusch J. Population level administrative data evidence of visits to the emergency department by youth with intellectual/developmental disabilities in BC, Canada. Am J Emerg Med. 2023;69:52–7.
33. Persechino ST, Morin D, Bardon C. An Exploratory Study on the Suicidal Behaviours of People With Intellectual Disability or Autism: Examining Their Understanding of Suicide and Death, and the Perceptions of Their Direct Support Staff. J Appl Res Intellect Disabil. 2025;38(1):e13318.
34. Selick A, Durbin J, Salonia C, Volpe T, Orr E, Hermans H, et al. The Nuts and Bolts of Health Care: Evaluating an initiative to build direct support professional capacity to support the health care of individuals with intellectual disabilities. J Appl Res Intellect Disabil. 2022;35(2):623–32.
35. Miranda R, Scott M, Hicks R, Wilcox HC, Harris Munfakh JL, Shaffer D. Suicide attempt characteristics, diagnoses, and future attempts: comparing multiple attempters to single attempters and ideators. J Am Acad Child Adolesc Psychiatry. 2008;47(1):32–40.
36. Park S, Lee Y, Youn T, Kim BS, Park JI, Kim H, et al. Association between level of suicide risk, characteristics of suicide attempts, and mental disorders among suicide attempters. BMC Public Health. 2018;18(1):477.
37. Probert-Lindstrom S, Berge J, Westrin A, Ojehagen A, Skogman Pavulans K. Long-term risk factors for suicide in suicide attempters examined at a medical emergency in patient unit: results from a 32-year follow-up study. BMJ Open. 2020;10(10):e038794.
38. Rodgers J, Cassidy S, Pelton M, Goodwin J, Wagnild J, Bhattarai N, et al. Feasibility and acceptability of autism adapted safety plans: an external pilot randomised controlled trial. EClinicalMedicine. 2024;73:102662.

39. Yen S, Peters JR, Nishar S, Grilo CM, Sanislow CA, Shea MT, et al. Association of Borderline Personality Disorder Criteria With Suicide Attempts: Findings From the Collaborative Longitudinal Study of Personality Disorders Over 10 Years of Follow-up. JAMA Psychiatry. 2021;78(2):187–94.
40. Bach B, Vestergaard M. Differential Diagnosis of ICD-11 Personality Disorder and Autism Spectrum Disorder in Adolescents. Child (Basel). 2023;10(6).
41. Weiner L, Bemmouna D, Costache ME, Martz E. Dialectical Behavior Therapy in Autism. Curr Psychiatry Rep. 2025;27(5):307–18.
42. Eldeeb S, Antezana L, Conner CM, Beck KB, Victor SE, Tsypes A et al. Recent Non-Suicidal Self-Injury in Autistic Adolescents and Adults: Characteristics, Clinical Correlates and Suicidal Thoughts and Behaviors. Autism Res. 2026:e70370.
43. Moseley RL, Gregory NJ, Smith P, Allison C, Baron-Cohen S. Links between self-injury and suicidality in autism. Mol Autism. 2020;11(1):14.
44. Stark I, Rai D, Lundberg M, Culpin I, Nordstrom SI, Ohlis A, et al. Autism and self-harm: A population-based and discordant sibling study of young individuals. Acta Psychiatr Scand. 2022;146(5):468–77.
45. Schwartzman JM, Rubin A, Fox KR, Hedley D, Bettis AH. Type, content, and triggers for self-injurious thoughts and behaviors in autistic youth and their disclosure to caregivers. Autism. 2025;29(6):1627–35.
46. Finkelstein Y, Macdonald EM, Hollands S, Sivilotti ML, Hutson JR, Mamdani MM, et al. Risk of Suicide Following Deliberate Self-poisoning. JAMA Psychiatry. 2015;72(6):570–5.

Tables

Table 1
Sociodemographic Characteristics by Whether Suicidality is a Primary Presenting Reason

Sociodemographic variables	Suicidality as a primary presenting reason (Total Visits N = 1027)		χ^2	p-value[a]	q-value[b]
	Yes (N = 441)	No (N = 586)			
Age (M, SD)	28.7 (9.50)	29.7 (11.7)	13206[e]	0.746[e]	0.746
Birth-Assigned Sex			58.919	< 0.001	< 0.001*
Male	219 (49.7%)	429 (73.2%)			
Female	222 (50.3%)	157 (26.8%)			
Gender			6.896	0.009	0.027*
Cisgender	397 (90.0%)	534 (91.1%)			
Non-cisgender	20 (4.5%)	9 (1.5%)			
No information	24 (5.4%)	43 (7.3%)			
Sexual Orientation[c]			0.129	0.719	0.746
Heterosexual	283 (64.2%)	342 (58.4%)			
Non-heterosexual	58 (13.2%)	64 (10.9%)			
No information	100 (22.7%)	180 (30.7%)			
Intellectual Disability			3.990	0.046	0.092
Yes	157 (35.6%)	173 (29.5%)			
No	284 (64.4%)	413 (70.5%)			
Language[d]			0.587	0.444	0.666
English	426 (96.6%)	555 (94.7%)			

[a] from chi-squared test

[b] Benjamini–Hochberg False Discovery Rate adjusted q-value

[c] exclude “not mentioned”

[d] exclude “not mentioned” and “do not know”

[e] from Wilcoxon rank-sum test

* statistically significant: q-value < 0.05

Sociodemographic variables	Suicidality as a primary presenting reason (Total Visits N = 1027)		χ^2	p-value[a]	q-value[b]
	Yes (N = 441)	No (N = 586)			
Non-English	14 (3.2%)	25 (4.3%)			
No information	1 (0.2%)	6 (1.0%)			
Suicidal Ideation			325.66	< 0.001	< 0.001*
Yes	314 (71.2%)	123 (21.0%)			
No	80 (18.1%)	371 (63.3%)			
No information	47 (10.7%)	92 (15.7%)			
Suicidal Intent			171.85	< 0.001	< 0.001*
Yes	92 (20.9%)	11 (1.9%)			
No	301 (68.3%)	483 (82.4%)			
No information	48 (10.9%)	92 (15.7%)			
Suicide Plan			236.76	< 0.001	< 0.001*
Yes	142 (32.2%)	16 (2.7%)			
No	251 (56.9%)	478 (81.6%)			
No information	48 (10.9%)	92 (15.7%)			
[a] from chi-squared test					
[b] Benjamini–Hochberg False Discovery Rate adjusted q-value					
[c] exclude “not mentioned”					
[d] exclude “not mentioned” and “do not know”					
[e] from Wilcoxon rank-sum test					
* statistically significant: q-value < 0.05					

Table 2. Prior Suicide Attempts, Self-Harm Behaviors, and Recent Loss or Bereavement

Variables	Suicidality as a primary presenting reason (Total Visits N = 1027)	
	Yes (N = 441)	No (N = 586)
Prior Suicide Attempt		
Yes	340 (77.1%)	208 (35.5%)
No	52 (11.8%)	277 (47.3%)
No information	49 (11.1%)	101 (17.2%)
Self-harm Behaviors		
Yes	94 (21.3%)	66 (11.3%)
No	189 (42.9%)	304 (51.9%)
No information	158 (35.8%)	216 (36.9%)
Recent Loss or Bereavement		
Yes	64 (14.5%)	47 (8.0%)
No	254 (57.6%)	382 (65.2%)
No information	123 (27.9%)	157 (26.8%)

Note: PsyED: psychiatric emergency department. Percentages are calculated for within each group (column).

Figures

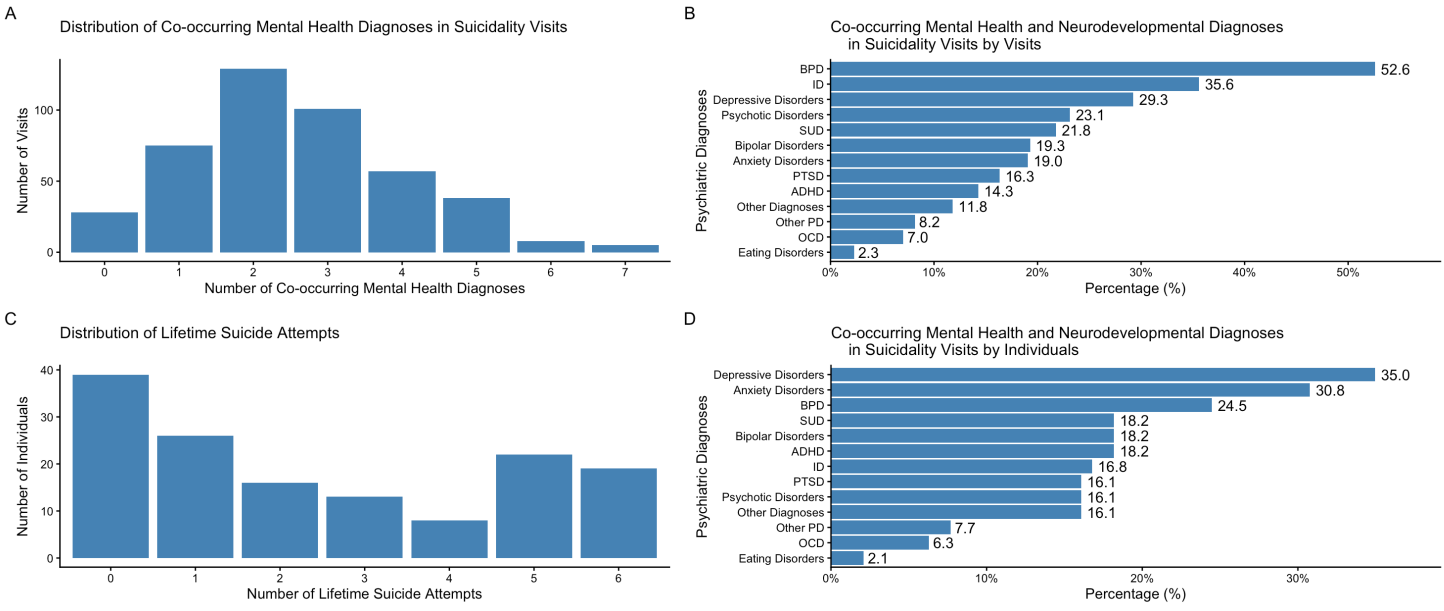


Figure 1

Distributions of Psychiatric Diagnoses and Lifetime Suicide Attempts

A:Distribution of Co-occurring Mental Health Diagnoses in Visits with Suicidality as a Primary Presenting Reason for Psychiatric Emergency Department Visit. **B:** Co-occurring Mental Health and Neurodevelopmental Diagnoses in Visits with Suicidality as a Primary Presenting Reason for Psychiatric Emergency Department Visits by Visits (N = 441). **C:** Distribution of Lifetime Suicide Attempts by Individuals Using the Last Visit. **D:** Co-occurring Mental Health and Neurodevelopmental Diagnoses in Visits with Suicidality as a Primary Presenting Reason for Psychiatric Emergency Department Visits by Individuals (N=143).

Note: Psychotic Disorders: including schizophrenia, schizoaffective disorder, and other psychotic disorder. PsyED: psychiatric emergency department. OCD: obsessive-compulsive disorder. BPD: borderline personality disorder. Other PD: other specified personality disorders or traits. PTSD: post-traumatic stress disorder. ADHD: attention-deficit/hyperactivity disorder. SUD: substance use disorders. Other Diagnoses: mental health diagnoses that are not covered by these specified diagnoses. ID: intellectual disability. Mental health diagnoses: including Depressive Disorders, Anxiety Disorders, Psychotic Disorders, OCD, BPD, Other PD, Eating Disorders, PTSD, Bipolar Disorders, SUD, and Other Diagnoses.

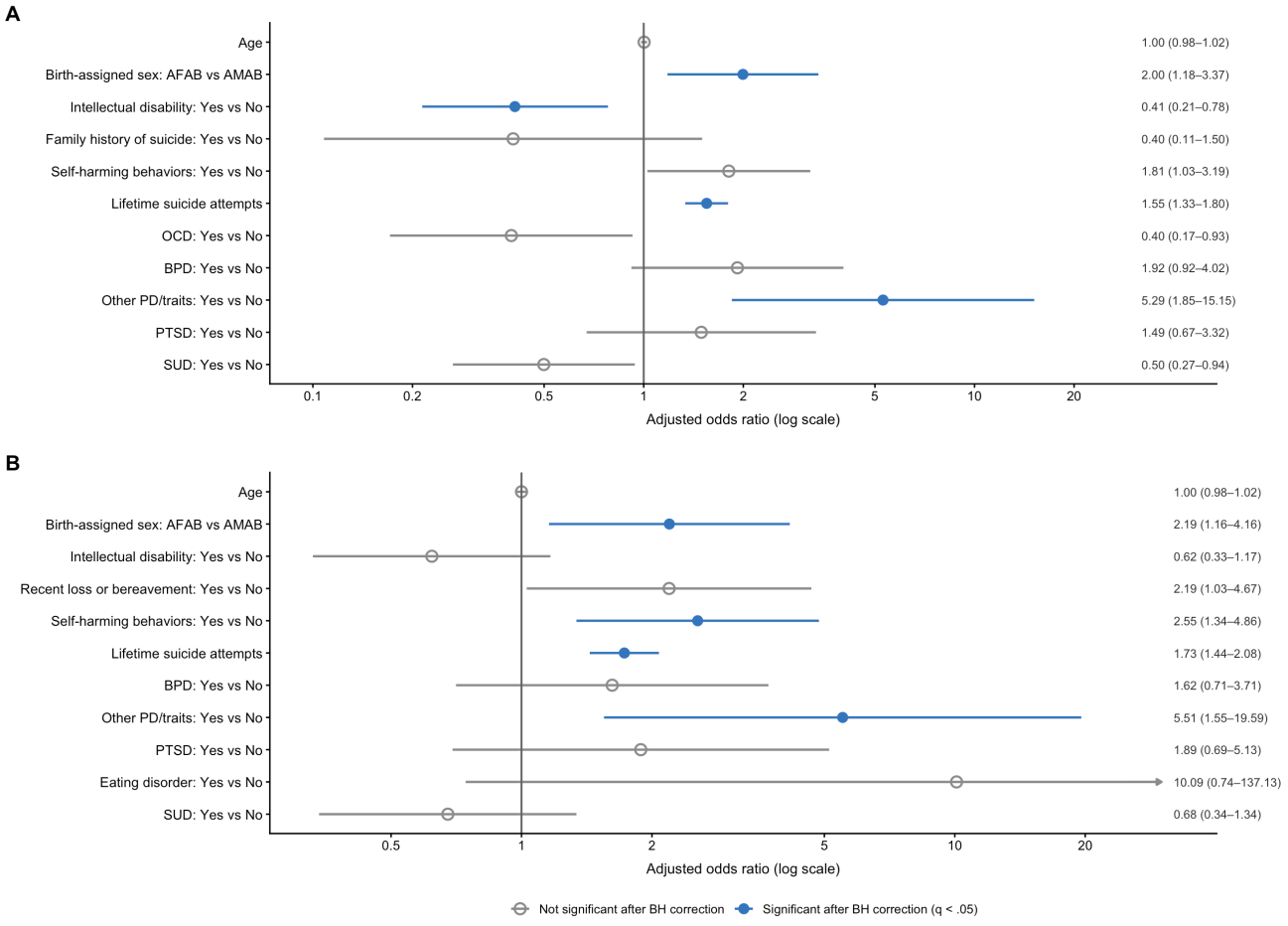


Figure 2

Factors Associated with Suicidality

A: Factors Associated with Suicidality as a Primary Presenting Reason for Psychiatric Emergency Department Visit. **B:** Factors Associated with Any-Suicidality Identified during Psychiatric Emergency Department Visit.

Note: Points represent adjusted odds ratios ($_{adj}$ORs), and horizontal lines represent 95% confidence intervals. The vertical line at $_{adj}$OR = 1.0 represents the null value. Filled blue circles indicate statistical significance after Benjamini–Hochberg false discovery rate correction ($q < 0.05$); open gray circles indicate $q \geq 0.05$. The final multivariable model was fitted after variable selection using the least absolute shrinkage and selection operator (LASSO). All models included a random intercept for individuals. AFAB = assigned female at birth. AMAB = assigned male at birth. OCD: obsessive-compulsive disorder. BPD: borderline personality disorder. Other PD: other specified personality disorders or traits. PTSD: post-traumatic stress disorder. SUD: substance use disorders.

Supplementary Files

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