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Research article

SUICIDALITY IN YOUTH POPULATIONS: DATA FROM A CONSULTATION SETTING

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SUMMARY

Background: *Adolescents and young adults present elevated suicide risk, which remains a major public health concern. This study aims to characterize the clinical and psychosocial features of adolescents and young adults referred for psychiatric consultation after a suicide attempt.*

Subjects and methods: *We conducted a retrospective observational study at the University Hospital of Perugia, Italy, analyzing 72 patients aged 14–35 who received their first psychiatric evaluation during medical hospitalization. Patients were divided into two groups: those referred after a suicide attempt (SA group, n=36) and those referred for other psychiatric concerns (non-SA group, n=36). Data were extracted from structured consultation reports and included sociodemographic, clinical, and psychopathological variables. Bivariate analyses compared the two groups using appropriate statistical tests.*

Results: *Compared to the non-SA group, the SA group had significantly higher rates of unemployment, positive psychiatric family history, previous suicide attempts, insomnia prior to admission, anxiety symptoms with both psychic and somatic features, personality disorders, and mood stabilizer use. SA patients also showed lower cooperativeness during interviews and were more likely to be assessed with suicidal ideation. More than one third of SA patients were assessed as euthymic post-attempt.*

Conclusions: *Key clinical markers of suicide risk in youths may include unemployment, family psychiatric history, insomnia, anxiety with somatic and psychic features, and personality disorders. The clinical profile of suicide attempters suggests a possible contribution of bipolar spectrum diathesis and affective dysregulation. Early, multidimensional risk assessment and integrated intervention strategies in liaison psychiatry are essential to improve detection and prevention of suicidality in youth.*

Key words: *suicide attempt - suicide risk – suicidality – youths – anxiety - insomnia*

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INTRODUCTION

Adolescents and young adults represent a population at increased risk for developing psychopathology, with a remarkable incidence of self-injurious behaviors. While global suicide mortality has shown a gradual decline in recent decades, suicide remains a major public health concern, ranking as the fourth leading cause of death among individuals aged 15 to 29 (WHO 2021). In Italy, this trend is equally alarming: approximately 500 suicides occur annually in individuals aged 15 to 34, with a 16% increase observed between 2020 and 2021 in this age group (ISTAT 2023). These figures likely underestimate the issue of suicidality in this population, as non-lethal suicide attempts outnumber completed suicides by a factor of at least twenty (WHO 2021). Importantly, suicidal ideation and behaviors are developmentally patterned. Suicidal thoughts are rare in childhood, increase gradually during adolescence, and peak in young adulthood (Nock et al. 2013). According to the World Health Organization (2014), suicide rates are lowest before age 15 and progressively increase, reaching their highest levels after age 70. However, during the critical developmental window of adolescence and early adulthood, the combination of emerging psychiatric symptoms and psychosocial instability may catalyze the onset of suicidal behaviors. Indeed, during this same window most mental disorders first emerge, with a median age of onset around 18 years and over 60% of lifetime diagnoses occurring before age 25 (Solmi et al. 2022). The presence of any mental disorder in this age group has been associated with a tenfold increased risk of suicide (Gili et al. 2019). The well-documented gender paradox in suicidal behavior shows that, while males have higher rates of suicide completion, females exhibit greater prevalence of suicidal ideation and attempts (Schrijvers et al. 2012; Miranda-Mendizábal et al. 2019). This is largely explained by differences in method lethality: men tend to use more violent means, such as hanging or firearms, whereas women more frequently resort to less immediately fatal methods like self-poisoning (Värnik et al. 2008; Miranda-Mendizábal et al. 2019). Consistently, epidemiological data highlight that adolescent girls report more suicidal thoughts and behaviors than boys, even though completed suicides remain less frequent among females (Carli et al. 2014; Uddin et al. 2019). Alarmingly, many young individuals who attempt suicide do so in the absence of prior contact with mental health services. In fact, a suicide attempt is frequently the first point of psychiatric contact, particularly in hospital and emergency settings (Zeppegno et al. 2020). A prior suicide attempt is not only a marker of acute distress but also one of the strongest predictors of future attempts and suicide

completion, as underscored in longitudinal studies and meta-analyses (Ribeiro et al. 2016; Owens et al. 2002). This highlights the urgency of early recognition and structured intervention following any suicidal crisis.

To better capture the contemporary psychosocial landscape, the present study adopts a broader age range, from 14 to 35 years. Although the World Health Organization defines adolescence as ending at 19 years, the concept of "emerging adulthood" is widely used to encompass individuals aged 18 to 29, who often face instability in education, employment, and identity formation (Arnett et al. 2014). In Italy, 67.4% of individuals under 35 still live with their parents, often lacking economic independence (ISTAT, 2023), further supporting an extended window of psychosocial vulnerability.

Within this framework, our study investigates adolescents and young adults referred for psychiatric consultation during medical hospitalization in a tertiary-care center in central Italy. By comparing those evaluated after a suicide attempt with those referred for other psychiatric concerns, we aim to delineate the clinical features of a possible "post-attempt phenotype", and to identify subtle indicators that could enhance early detection and inform preventive strategies.

SUBJECTS AND METHODS

This retrospective observational study was conducted at the University Hospital of Perugia (Italy) and was designed in a consultation-liaison psychiatric service. Data were collected from structured psychiatric consultation reports compiled during weekday shifts (Monday–Friday, 8:00–20:00, excluding holidays) in medical and surgical wards, between August 2023 and June 2025.

Inclusion criteria were the following: (i) age between 14 and 35 years; (ii) hospitalization in a non-psychiatric ward; (iii) first psychiatric evaluation during the index admission. A total of 72 patients met these criteria and were divided into two groups:

- SA group (n=36): consultation requested following a suicide attempt;
- non-SA group (n=36): consultation requested for other reasons (e.g., anxiety, depressive symptoms, behavioral disturbances).

Data extracted from reports included sociodemographic variables (age, biological sex, employment), psychiatric and family history, current suicidal ideation, mood and anxiety symptoms (somatic and/or psychic), sleep disturbances, major stressors in the preceding six months, comorbid personality disorders, chronic medical illness, ongoing psychopharmacological, and referral to or contact with community mental health services (CMHS). Statistical analyses were conducted using IBM SPSS Statistics, version 26. Descriptive analyses were performed for evaluating the distributional properties of the variables in the sample. Continuous variables were considered as normally distributed according to the central limit theorem. Bivariate analyses were performed to compare the two subgroups of SA and non-SA. Categorical variables were analyzed using Chi-square and Fisher's exact test, while we used the Student's t test for continuous ones ($p<0.05$).

RESULTS

Of the 72 patients included in the analysis, most were females (n=51, 70.8%), with a mean age of 22.86±6.63 (age range 14–35) and a higher prevalence of patients aged ≥ 18 (n=51, 75%). The most represented reason for requiring the psychiatric consultation (n=18, 25%) was a general psychopathological assessment, followed by the need of re-evaluating psychopharmacological treatment (n=12, 16.7%). The most frequent method among suicide attempters was medication overuse (n=16, 42.1%), followed by defenestration (n=11, 28.9%). No sex differences were detected between SA and no SA subgroups. When evaluating other sociodemographic characteristics, we found that 66.7% of the SA group were unemployed compared to 33.3% in the non-SA group (p=0.010). A positive psychiatric family history was more common in the SA group (63.9% vs. 30.6%; p=0.005), as were previous suicide attempts (38.9% vs 16.7%, p=0.031). When analyzing psychopathological correlates, a higher prevalence of insomnia in the days prior to admission (66.7% vs. 11.1%; p=0.016) and anxiety symptoms, particularly with both psychic and somatic features (27.3% vs 0%, p=0.049), was observed in the SA group. In the latter, we also found a higher prevalence of personality disorders (30.6% vs. 8.3%; p=0.029). As for treatment features, the use of mood stabilizers was more frequent in the SA group (56.5% vs. 16.7%; p=0.033).

Only 45.8% of SA patients were being treated in CMH services, with no significant difference compared to the non-SA group. Life stressors in the preceding six months were not more prevalent in the SA group. Patients in the SA group showed significantly lower cooperativeness during psychiatric interview (22.9% vs. 5.7%; p=0.040), and were more frequently assessed as having suicidal ideation (28.1% vs. 8.6%; p=0.049). Despite this, over 70% of SA patients denied suicidal ideation at some time during evaluation. Remarkably, 36.7% of SA patients were assessed as having a euthymic or non-depressed mood state. Recommendations for initiating or adjusting pharmacological therapy were more frequent in the SA group (p=0.045). Patients with a chronic medical illness were less represented among those who had attempted suicide (p=0.014). A graphical representation of the main findings of the bivariate analyses can be found in Figure 1.

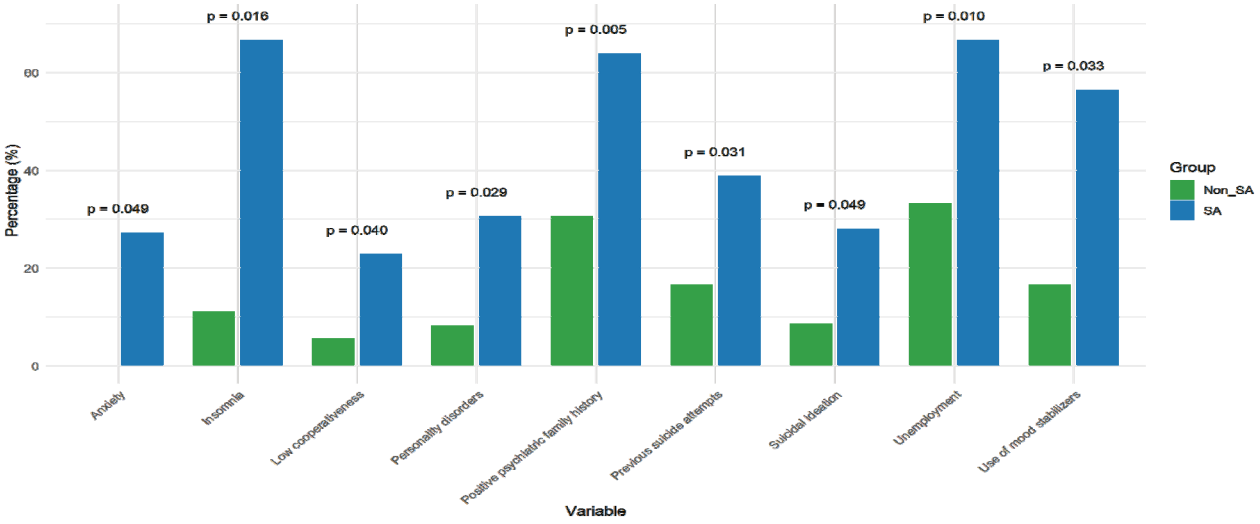

Figure 1. Comparison of socio-demographic and clinical features between SA and non-SA.

DISCUSSION

Our findings confirm several possible correlates of suicidal behavior in youth populations, including unemployment, family history of psychiatric disorders, insomnia, under-recognized psychopathology, and prior suicide attempts (Gili et al. 2019; Brent & Melhem 2020; Porras-Segovia et al. 2020). Importantly, over half of the patients in the SA group were not previously in contact with mental health services. This suggests that suicide attempts may represent the first overt manifestation of psychiatric suffering in a significant portion of young individuals (O'Connor & Nock 2014), with alexithymia, denial, and dissociation contributing to reduced help-seeking (Gulliver et al. 2010; Michelmore & Hindley 2012). Another key observation is the high prevalence of anxiety symptoms, especially when both psychic and somatic components are present, in the SA group. This "dual expression" of anxiety may reflect limited mentalization skills and high affective arousal, characteristics often associated with alexithymia and emotional dysregulation (De Berardis et al. 2020). These features, when coupled with impulsivity and relational instability, may form part of a subclinical profile of vulnerability for suicidal behavior. An unexpected result was that patients with chronic medical illness were less likely to have attempted suicide. This may reflect a short-term protective effect of structured care, engagement with health services, or a stronger sense of coherence - a psychological resource shown to buffer against stress and promote resilience in adolescents with chronic conditions (Moksnes & Haugan 2018). Of particular interest is the frequent absence of overt depressive symptoms in patients who attempted suicide. In our sample, over one third of post-attempt patients were assessed as euthymic. This challenges the traditional view that suicidality necessarily stems from persistent depressive states. Supporting this, recent longitudinal findings show that many individuals exhibit a rapid decline in suicidal ideation and depressive symptoms in the weeks following a suicide attempt, with improvements in overall functioning soon after (Ballard et al. 2020). This may reflect a post-crisis emotional reset, whereby the attempt itself disrupts a pathological equilibrium, leading to temporary relief or psychological reorganization. Clinically, this highlights the need to assess suicide risk beyond mood symptoms alone, especially when apparent euthymia may mask deeper vulnerabilities. The clinical and treatment features observed in our sample also raise the possibility of an underlying bipolar diathesis among youth suicide attempters. The higher prevalence of personality disorders, mood stabilizer use, and affective dysregulation-related symptoms such as anxiety and insomnia may indicate subthreshold bipolar spectrum pathology, consistent with emerging literature linking bipolar disorder and suicidality in youth (Fumero et al. 2021). Bipolar disorder is characterized by mood instability and mixed affective states, which are strongly associated with increased risk for suicide attempts and non-suicidal self-injury (Sverdlichenko et al. 2020). Importantly, suicidality in bipolar patients often occurs outside classic depressive episodes, frequently during mixed or hypomanic states, complicating detection and intervention. This bipolar diathesis hypothesis is further supported by the increased use of mood stabilizers in the SA group, possibly suggesting that clinicians recognized affective instability requiring targeted pharmacotherapy. Early identification of bipolar spectrum features in suicidal adolescents is critical, as it may guide more effective, personalized treatment strategies and suicide prevention efforts (Wozniak et al. 2025). Notably, the presence of ambivalent or self-harming ideation was significantly more frequent among patients who had attempted suicide than among those evaluated for other reasons, supporting its role as a clinically relevant - though not always present - risk marker. Strikingly, over 70% of patients who had attempted suicide did not report explicit suicidal or self-harming ideation at some time during the psychiatric consultation. This finding aligns with recent research on the limitations of self-reported suicidal ideation as a predictor of suicidal behavior

(Belsher et al. 2019; Franklin et al. 2017). Many patients may underreport suicidal thoughts due to shame, fear of hospitalization, or limited capacity for emotional articulation (Michelmore & Hindley 2012; Hom et al. 2019). Others may have acted impulsively without sustained ideation, particularly in the context of affective dysregulation or personality pathology (Bernanke et al. 2017; Millner et al. 2020). Furthermore, ambivalence - often central to suicidal dynamics - may not be verbally accessible or may emerge only through indirect cues (Klonsky et al. 2018). These results suggest that clinicians should integrate multiple dimensions of risk assessment, including behavioral cues, psychiatric history, relational dynamics, and affective tone, rather than relying exclusively on the presence or absence of reported ideation (Rogers et al. 2018; McCabe et al. 2018). Insomnia was significantly more common in the SA group. While sleep disturbance may act as a proximal risk factor - impairing affect regulation, judgment, and impulse control - it may also represent a symptom of underlying disorders such as anxiety or mood dysregulation (Geoffroy et al. 2019; Porras-Segovia et al. 2020). Rather than interpreting insomnia as a direct cause of suicidality, clinicians should consider it within the broader psychopathological context. Finally, the significantly lower cooperativeness observed in the SA group may indicate shame, trauma-related withdrawal, or affective disorganization, and has been described as a potential red flag in youth consultations (Bozzatello et al. 2021; Levi-Belz et al. 2015). Attachment insecurity and reduced self-disclosure are thought to mediate this relationship, contributing to loneliness and resistance to psychiatric engagement (Levi-Belz et al. 2015). These dynamics may impair the therapeutic alliance and hinder timely intervention, particularly in emergency settings where relational cues and nonverbal behaviors may be the primary available data for risk assessment (Levi-Belz & Gvion 2017; Bozzatello et al. 2021). As highlighted by McCabe et al. (2018), clinicians should pay close attention to the quality of engagement and the overall interaction, as limited cooperativeness and poor alliance can themselves be warning signs of acute distress or concealed suicidal intent. Our study is limited by its retrospective design, small sample size that could limit the generalizability of findings, and reliance on consultation reports. Nonetheless, it offers valuable insight into a subgroup of youth whose suicidality emerges silently, outside traditional pathways of care.

CONCLUSIONS

Suicide attempts in young patients often occur as unexpected and acute phenomena, embedded in complex clinical presentations that do not necessarily fit classic depressive frameworks. Liaison psychiatry must be attuned to subtle indicators as potential red flags. Future strategies should prioritize integrated screening, early engagement, and a broader phenomenological understanding of suicidality in youth.

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Contribution of individual authors:

Gianmarco Cinesi: conceptualization, methodology, data curation, formal analysis, writing – original draft.

Agnese Sciolto: data curation, formal analysis, writing – review and editing.

Chiara Miriam Carioti, Francesca Di Maio & Elena Sofia Gaias: data curation, writing – review and editing.

Francesca Scopetta: writing – review and editing.

Filippo De Giorgi: data curation, writing – review and editing.

Giulia Menculini: conceptualization, methodology, formal analysis, writing – review and editing, supervision.

All authors approved the final manuscript.

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