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Bénédicte Nobile, Elia Gourguechon-Buot, Philip Gorwood, Emilie Olié, Philippe Courtet. Association of clinical characteristics, depression remission and suicide risk with discrepancies between self- and clinician-rated suicidal ideation: Two large naturalistic cohorts of outpatients with depression. *Psychiatry Research*, 2024, 335, pp.115833. 10.1016/j.psychres.2024.115833 . hal-04502959

HAL Id: hal-04502959

<https://hal.science/hal-04502959v1>

Submitted on 21 Nov 2024

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Association of clinical characteristics, depression remission and suicide risk with discrepancies between self- and clinician-rated suicidal ideation: Two large naturalistic cohorts of outpatients with depression

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ARTICLE INFO

Keywords:

Suicidal ideation
Depression
Suicidal behavior
Psychometric assessment

ABSTRACT

Clinician- and self-rating of suicidal ideation (SI) are often discrepant. The aim of this study was to determine: 1) Association between discrepant self- and clinician-rated SI with clinical characteristics, depression remission and SA (SA) risk; 2) which SI assessment (self or clinician) predicted depression remission and risk of SA.

LUEUR and GENESE are two large, prospective, naturalistic cohorts of French adult outpatients with unipolar depression treated and followed for 6 weeks. SI presence was assessed and defined with a score to the suicidal item of the Montgomery-Åsberg Depression Rating Scale ≥ 3 . Discordant SI was defined as SI detection by only one of the two evaluators (patient or clinician).

In both cohorts, 49.3 % (GENESE) and 34 % (LUEUR) patients had discordant SI. Clinical characteristics were more severe, and risk of SA was higher in patients with current SI (concordant and discordant) than in patients without SI and in the concordant than in the discordant group. Prediction of the risk of SA and of depression non-remission was comparable by the two ratings.

Patients with SI (concordant and discordant) have more severe clinical characteristics and patients with concordant SI are the most at risk of SA during the follow-up. It is crucial to assess SI and to improve how it is evaluated.

1. Introduction

Suicidal behaviors (*i.e.* suicide and suicide attempt (SA)) are a major public health concern. Suicidal ideation (SI) is a major risk factor of suicidal behaviors (Franklin et al., 2017). Moreover, recent studies suggest that suicidal depression (*i.e.* depression with current SI) could be a specific phenotype of depression with more severe clinical characteristics (*e.g.* anxiety, hopelessness), different trajectories of depression and SI, and higher suicidal risk in the short term (Köhler-Forsberg et al., 2017; Nobile et al., 2022; Nobile et al., 2021). This would imply that patients with suicidal depression need specific therapeutic strategies that target suicidal risk (*e.g.* ketamine, esketamine) (Abbar et al., 2022; Canuso et al., 2018; Courtet et al., 2020). Therefore, it is important to identify patients with current SI. This can be done using different tools

(*e.g.* clinical interview, self-report survey, phone screen interview) that may not lead to the same result (Deming et al., 2021). The two most commonly used methods in clinical practice, interviews and self-report questionnaires, may present up to 75 % of disagreement (Gao et al., 2015; McClure et al., 2018; Nobile et al., 2023; Vera-Varela et al., 2021). This disagreement could lead to under-evaluating the suicidal risk. Indeed, 56 % of patients who commit suicide met a clinician <4 weeks before their death (O'Rourke et al., 2023). Another problem could be care overconsumption by patients who are not suicidal.

Understanding the reasons of the discrepancies between self- and clinician-rated SI might improve SI detection. Patients tend to declare more often SI in self-report questionnaires than during clinical interviews (Nobile et al., 2023; Richards et al., 2019; Terrill et al., 2021). Some studies assessed the causes of this non-declaration of SI by patients

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<https://doi.org/10.1016/j.psychres.2024.115833>

Received 1 December 2023; Received in revised form 26 February 2024; Accepted 29 February 2024

Available online 1 March 2024

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to clinicians (Richards et al., 2019; Terrill et al., 2021). For example, a study on 42 patients who attempted suicide after a clinical interview during which they reported no SI found that the main reasons were: absence of SI at the interview time, fear of stigma, overreaction, and loss of autonomy (Richards et al., 2019). On the other hand, clinicians may under-evaluate the suicidal risk. Indeed, SI are often seen as a symptom or a consequence of a comorbid psychiatric disorder, mainly depression. Therefore, clinicians may suppose that the risk of SI is lower in patients with low or moderate depression than in patients with severe depression (Nobile et al., 2023). Furthermore, it has been recently shown that when patients respond negatively to the first questions during suicide risk screening (thought about death), clinicians may stop the screening and do not identify patients with SI (Uhl et al., 2023). This under-evaluation might be explained also by how the questions are formulated by the clinicians and how they are understood by the patient (Ammerman et al., 2021). For example, a recent study on 613 patients compared four different sentences to assess active SI (*i.e.* desire to kill oneself) and found that sentences including the word “serious” were less likely to be endorsed (Ammerman et al., 2021).

It is also important to characterize patients with discordant SI evaluation, especially patients who report SI only in self-rated questionnaires but not in clinical interviews, to better identify them. Few studies explored their characteristics (Czyz et al., 2016; Gao et al., 2015; Hatcher and Pimentel, 2013; McClure et al., 2018; Nobile et al., 2023; Vera-Varela et al., 2021). In all these studies, self-declared SI was more frequent than clinician-rated SI. Specifically, one of these studies assessed the wish of death (*i.e.* passive SI) in 648 outpatients by clinician interview and self-rated questionnaires and found low levels of agreement between self- and clinician-rated evaluations. Patients with discordant results were more often women, middle aged, with active employment, and without history of suicidal behavior (Vera-Varela et al., 2021). In another study ($n = 103$ patients with unipolar depression), disagreement between self- and clinician evaluations was positively correlated with depression severity, and was more frequent among women and patients with high education level (Gao et al., 2015). Fewer studies investigated which SI rating (patient or clinician) better predicts a future SA. One study in adolescents and young adults (13–24 years of age) found that self-rated SI was more predictive of a future SA in the 18 months after the assessment (Czyz et al., 2016). Due to the high numbers of patients who report only self-rated SI and their higher suicidal risk, more studies are needed on the discordant SI evaluation. Indeed, there is currently a research gap on clinical characteristics and future suicidal risk in patients with discordant SI. Yet, this is primordial to characterize patients who disclose SI only in self-rated questionnaires and not to their clinicians or patients considered as having no SI by their clinicians and to evaluate their suicidal risk in the short-term. On one hand, identifying their clinical characteristics will help to partly understand causes of this disagreement and to identify these patients. Furthermore, if patients with discordant SI have different clinical severity than patients with concordant SI, more studies will be needed to understand causes of this discrepancy. Then, evaluating their suicidal risk in the short-term will help to evaluate if patients with only self-rated SI are at high suicidal risk.

In a recent study, we assessed the clinical characteristics of patients with bipolar disorder and discrepancies between SI evaluations (Nobile et al., 2023). Here, the aim of this study was to characterize outpatients with unipolar depression with discrepancies between SI evaluations and assess their risk of SA in the short-term (6 weeks). As found in our previous study and according to results from other studies cited here, we hypothesized that patients with discordant SI, especially those with only self-rated SI, will have less severe clinical characteristics than patients with concordant SI but more severe than those without SI and a suicidal risk close to those with concordant SI. To this aim, we performed the same analysis than in our previous study, in two independent large cohorts of outpatients with unipolar depression followed for 6 weeks to determine: 1) the sociodemographic, and clinical characteristics

associated with discrepancies between self-rated and clinician-rated SI; 2) whether discrepancies were associated with depression remission and risk of SA at week 6; and 3) whether self- and/or clinician-rated SI predict depression remission and risk of SA at 6 weeks. To address these questions, in this study, SI was evaluated with the suicidal item of Montgomery and Åsberg Depression Rating Scale (MADRS-SI) by clinicians and by patients separately. Patients were divided in three groups: patients with SI reported only in the self-rated or clinician-rated questionnaire (*i.e.* discordant), patients with SI reported in both questionnaires (*i.e.* concordant with SI), and patients without SI reported in the self- and clinician-rated questionnaires (*i.e.* without SI). To identify specific profiles/features, all discordant patients were compared (*e.g.* clinical characteristics, depression remission and risk of SA at 6 weeks) with concordant patients with and without SI, and then patients who reported SI only in the self-rated questionnaire were compared with concordant patients without SI and with SI. Finally, patients with SI only in clinicians-rated questionnaire were also compared with concordant patients without SI and with SI.

2. Materials and methods

2.1. Participants' recruitment

LUEUR and GENESE are two large, prospective, naturalistic cohorts of more than 3000 French adult outpatients with a diagnosis of major depressive episode (MDE) according to the DSM-IV criteria and followed for 6 weeks. These cohorts were created separately to explore different factors associated with MDE, suicidal behavior, and antidepressant treatment, and genetic correlates (GENESE cohort). The present study is not a post-hoc analysis using data from another study (Courtet et al., 2014; Voegeli et al., 2016).

General practitioners or psychiatrists recruited patients at primary and psychiatric care clinical centers throughout France. The same physician assessed the patient at the first (baseline) and second visit (week 6). In both studies, non-inclusion criteria were: younger than 18 years of age, bipolar disorder, schizophrenia, primary substance misuse, primary organic disease, and pregnancy or breast-feeding. Additional non-inclusion criteria in the GENESE study were: non-Caucasian ethnicity, and alcohol and substance dependence. Current treatment with an antipsychotic or a mood stabilizer at inclusion was an additional non-inclusion criterion in the LUEUR study.

In both cohorts, all participants started an antidepressant treatment or changed their current antidepressant treatment at the time of recruitment. In the GENESE cohort, all patients were treated with tianeptine (between 12.5 and 37.5 mg/day). In the LUEUR cohort, all patients were treated with antidepressants approved by the European Medicines Agency, although most patients received tianeptine. Tianeptine was one of the most frequently prescribed antidepressants in France at enrollment time (2010) (Gusmão et al., 2013). In both cohorts, other concomitant treatments (in addition to the antidepressant) for current somatic problems or sleep or anxiety disorders were allowed, based on clinical judgment. Therefore, data on associated psychotropic treatments (*e.g.* anxiolytics) were also collected. The study was approved by the French Medical Council and local ethics committees (Comité de Protection des Personnes CPP Ile de France XI-CPPIDF11, Centre Hospitalier Intercommunal CHI Poissy Saint-Germain, Saint Germain en Laye, reference n. 08,042) and complies with the guidelines of the Declaration of Helsinki. All patients were informed about the study aims and procedures and signed a written informed consent.

2.2. Clinical assessment

2.2.1. Similar assessments in both cohorts

Demographic data, number of depressive episodes, current MDE duration, age at first MDE, lifetime history of SA and number of SA were recorded at baseline. Depression severity and SI were evaluated by

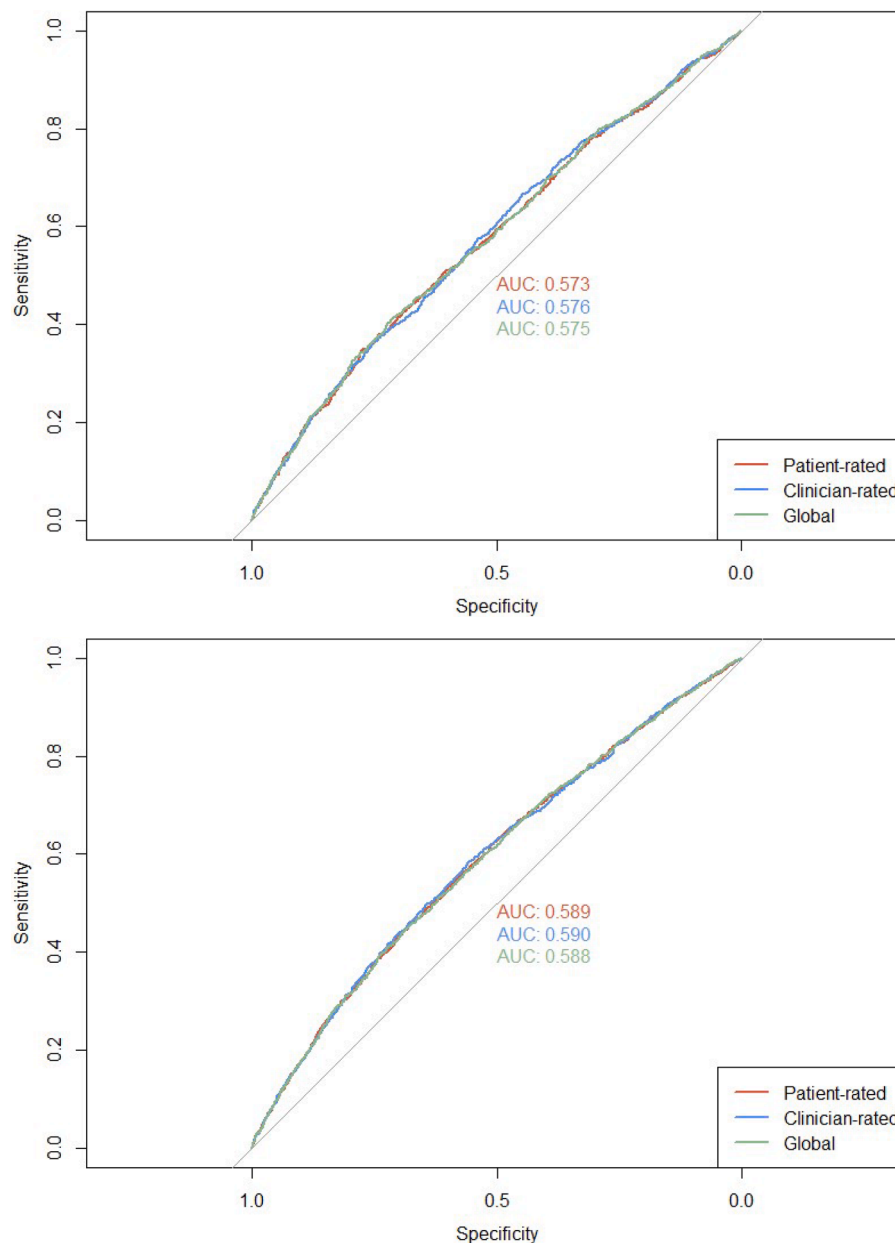


Fig. 1. (A): ROC curves of remission of depression at 6 weeks according to self- and/or clinician-rated SI at baseline in the GENESE cohort (B): ROC curves of remission of depression at 6 weeks according to self- and/or clinician-rated SI at baseline in the LUEUR cohort.

clinicians at baseline and at week 6. Patients self-rated depression severity and SI at baseline, week 1, week 2 and week 6 in the LUEUR study, and at baseline, week 2, week 4 and week 6 in the GENESE study.

Depression severity was assessed with the French self-rated version of the Hospital Anxiety and Depression Scale (HADS). This scale demonstrated a good performance for assessing depression severity in psychiatric and primary care patients and a good sensitivity to change (Friedman et al., 2001). Most factor analyses found a two-factor solution in accordance with the Anxiety (HADS-A) and Depression (HADS-D) subscales. Each subscale includes seven items scored from 0 to 3 and the total score for each scale ranges from 0 to 21. Total scores >11 are indicative of depression/anxiety. Moreover, the agitation and psychic anxiety sub-scores can be calculated (sum of items 1, 7, and 11 and sum of items 3, 5 and 13, respectively) (Lopez-Castroman et al., 2020). This scale was chosen for its simplicity of use, good comprehensibility and robust psychometric properties, demonstrated also in outpatient groups (Demyttenaere et al., 2009). In this scale, depressive symptom severity is

assessed independently of any SI/suicidal behavior (no items about SI).

SI was evaluated using the suicidal item of the self- and clinician-rated Montgomery-Åsberg Depression Rating Scale (MADRS) (item number 10, or MADRS-SI). MADRS-SI score ranges from 0 to 6 (0 to 1: enjoys life or takes it as it comes; 2 to 3: weary of life, only fleeting suicidal thoughts; 4 to 5: probably better off dead, suicidal thoughts are common, and suicide is considered as a possible solution, but without specific plans or intention; and 6: explicit plans for suicide when there is an opportunity, active preparations for suicide). A previous study showed that a single suicide item from a depression rating scale, clinician-rated or self-reported, is a valid approach to assess SI compared with the Beck's scale (Desseilles et al., 2012). This method was used in large clinical studies, such as the STAR*D (Zisook et al., 2009), and also in more recent studies (Ballard et al., 2017; Bernert et al., 2017; Nobile et al., 2018). Moreover, MADRS-SI has been found to have very good internal consistency (Cronbach's alpha: 0.980) and high inter-rater reliability (ICC=0.978) (Geijer et al., 2021).

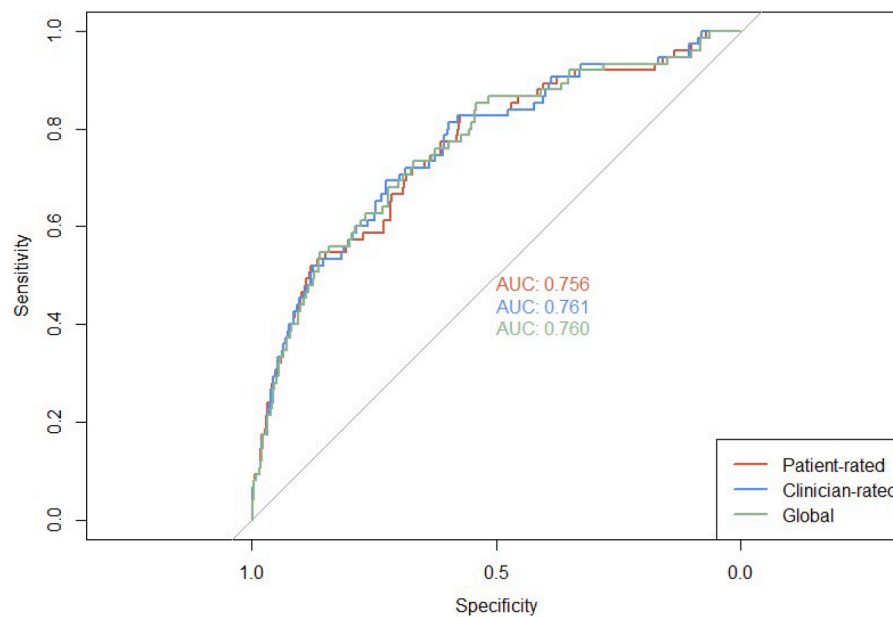


Fig. 2. ROC curves of risk of suicide attempts at 6 weeks according to self- and/or clinician-rated SI at baseline in the LUEUR cohort.

2.2.2. Supplemental assessment in the LUEUR cohort

Hopelessness was assessed using the self-report version of the Beck Hopelessness Scale in the LUEUR cohort at baseline, week 1, week 2, and week 6. This scale is valid and reliable (Kliem et al., 2018). It is composed of 20 items referred to the previous week, and its score ranges from 0 to 20 (20 indicates the highest level of hopelessness).

2.2.3. Supplemental assessment in the GENESE cohort

In the GENESE cohort, impulsivity was assessed using the self-report version of the Plutchik's questionnaire (The Measurement of Emotions, 2019, s. d.). This scale has shown a good validity and reliability (Alcázar-Córcoles et al., 2015). It has 15 items, each of which can be scored as "never" (=0), "sometimes" (=1), "often" (=2), and "almost always" (=3). The total score ranges from 0 to 45 (45 indicates the highest impulsivity). Moreover, sleep disturbances were assessed with the MADRS sleep item. Sleep disturbances and impulsivity were assessed at baseline, week 2, week 4, and week 6.

2.3. Definition of SI presence and discrepancies

SI presence was defined by a MADRS-SI score ≥ 3 (self- and/or clinician-rated evaluations) and SI absence was defined by a MADRS-SI score < 3 (self- and/or clinician-rated evaluations). This cut-off was previously used in different studies to define the presence of active SI (Lopez-Castroman et al., 2016; Nobile et al., 2023, 2021). Discordant SI rating was defined as a MADRS-SI score ≥ 3 by only one of the two evaluators (patient or clinician) at the same assessment. Three groups of patients were defined: without SI (i.e. no SI by both evaluators), concordant SI (i.e. SI by both evaluators), and discordant SI (i.e. SI by only one of the two evaluators) (see flowchart, Suppl Mat Fig. 1A and B).

2.4. Definition of depression remission and SA during the follow-up

Depression remission was defined by a final HADS-D score ≤ 7 (at week 6). SA occurrence was assessed at the study end (week 6) and was defined as any self-aggressive act done with the intention to die (not only self-mutilation) (Mann et al., 1999). As in the GENESE cohort only 19 patients attempted suicide during the follow-up, the risk of SA could be assessed only in the LUEUR cohort.

2.5. Statistical analysis

Categorical variables were presented with percentages and quantitative variables with means and standard deviation (SD). For all analyses, the group without SI was used as reference when possible, otherwise the concordant SI group was used.

Univariate multinomial logistic regression models were used to evaluate the association between the characteristics of the three groups and SI rating (using the likelihood-ratio test). Then, groups were compared two-by-two with univariate logistic regression models. A multiple multinomial logistic regression model was performed with all variables associated with SI discrepancies with a p-value < 0.05 . All variables included in multinomial logistic regression models performed are present in the tables.

Depression remission (both cohorts) and risk of SA (LUEUR cohort only) at the follow-up visit (week 6) were compared using a multiple logistic regression model adjusted for the SI rating and variables associated with SI discrepancies with a p-value < 0.05 . All variables included in these models are specified under the tables.

The same analyses were performed to compare patients without SI, with concordant SI and with self-reported SI only, and patient without SI, with concordant SI and with clinician-reported SI only. These are presented in supplementary materials.

To determine whether self-reported SI, clinician-reported SI or both can predict depression remission and risk of SA, the sensitivity, specificity, positive predictive value, and negative predictive value were computed for the models with SI as the only independent variable and for the adjusted models.

The significance level was set at $p < 0.05$ for the global p-value. Pairwise comparisons were corrected with the Bonferroni method ($p < 0.05/3 = 0.016$). Analyses were performed with the R software (version 4.2.2).

3. Results

3.1. Main characteristics of the two cohorts

Our sample included 3313 patients from the GENESE cohort (92.9 % of the original cohort), and 4785 patients from the LUEUR cohort (98.8 % of the original cohort) who had both self- and clinician-rated SI data at baseline. In the GENESE cohort, 2048 (61.8 %) patients were women,

their mean age was 49.2 (SD=14.8), and the mean HADS total score was 28.0 (SD=6.0). In the LUEUR cohort 3033 (63.4 %) patients were women, their mean age was 47.3 (SD=13.9), and the mean HADS total score was 29.4 (SD=6.0).

In the GENESE cohort, 1785 (53.9 %) patients did not have SI (MADRS-SI <3 by both evaluators) and 1528 (46.1 %) patients had SI (self- and/or clinician-rated). Among patients with SI, 774 (50.7 %) had concordant SI (*i.e.* self- and clinician-rated) and 754 (49.3 %) had discordant SI (637 only self-rated SI and 117 only clinician-rated SI). In the LUEUR cohort, 2368 (49.5 %) patients did not have SI (MADRS-SI <3 by both evaluators) and 2417 (50.5 %) patients had SI (self- and/or clinician-rated). Among patients with SI, 1595 (66 %) had concordant SI (*i.e.* self- and clinician-rated) and 822 (34 %) had discordant SI (457 only self-rated and 365 only clinician-rated) (Suppl Fig. 1).

3.2. Comparison of sociodemographic and clinical characteristics in the groups without SI and with SI (concordant and discordant) (Tables 1 and 2)

In both cohorts, sociodemographic characteristics (*i.e.* sex, age, marital status, and study level) were not different in patients without SI, with concordant SI and with discordant SI. Only the percentage of patients without professional activity was higher in the groups with SI (concordant and discordant) than without SI, without differences between patients with concordant and discordant SI. Moreover, in the LUEUR cohort, patients with SI (concordant and discordant) were more often living alone than patients without SI, without any difference between patients with concordant and discordant SI.

In the GENESE cohort, but not in the LUEUR cohort, current MDE duration was longer in patients with SI (concordant and discordant) than without SI. The percentage of patients with more than one MDE was higher in the groups with SI (concordant and discordant) than in the group without SI (GENESE cohort). Age at first MDE was younger only in patients with concordant SI compared with patients without SI (both cohorts). The number of MDE and age at first MDE were not different between patients with discordant SI and patients without SI or with concordant SI (both cohorts). In the LUEUR cohort, the number of patients with alcohol abuse was higher in the group with concordant SI than in the groups with discordant SI and without SI.

The percentage of patients with history of lifetime SA increased from patients without SI to patients with discordant SI and with concordant SI (8.6 %, 20 % and 33 %, respectively, in the LUEUR cohort, and 6.1 %, 14 % and 25 %, respectively, in the GENESE cohort).

Moreover, the depression, anxiety (total, psychic anxiety and agitation sub-scores), sleep disturbance, hopelessness, and impulsivity scores were lower in patients without SI than in patients with SI (concordant and discordant) and in patients with discordant SI than in patients with concordant SI. For example, in the LUEUR cohort, the HADS total scores were 27.3, 29.4, and 32.5 in patients without SI, discordant SI, and concordant SI, respectively. Lastly, associated treatments were less frequent in patients without SI than with SI (concordant and discordant), and in patients with discordant SI than with concordant SI (both cohorts).

In the multivariate model for the GENESE cohort, patients with SI (concordant and discordant) had more often history of lifetime SA, higher sleep disturbance, anxiety, and depression scores than patients without SI. Only history of lifetime SA and depression levels (*i.e.* higher scores in the concordant SI group) were different between patients with concordant and discordant SI. In the multivariate model for the LUEUR cohort, patients with SI (concordant and discordant) also had more often history of lifetime SA, and higher anxiety and depression scores than patients without SI. These patients also had higher hopelessness scores and more often associated treatments. Moreover, history of SA and depression levels (*i.e.* higher scores in the concordant SI group) were different between patients with concordant and discordant SI, like in the GENESE cohort, but also anxiety and hopelessness levels (*i.e.* higher

scores in patients with concordant SI).

3.3. Comparison of depression remission in the groups without SI and with SI (concordant and discordant) (Table 3)

In the GENESE cohort, the percentage of patients with depression remission at week 6 was lower in the groups with SI (concordant and discordant) than without SI in the unadjusted models. After adjustment, this result remained true only for patients with concordant SI. In the LUEUR cohort, the percentage of patients with depression remission at week 6 was lower in the group with concordant SI than in the group without SI (adjusted and unadjusted models). In both cohorts, the percentage of patients with depression remission at week 6 decreased from 53.5 % in the group without SI to 48.9 % and 45.1 % in the groups with discordant and with concordant SI, respectively (GENESE cohort).

3.4. Comparison of the risk of SA in the groups without SI and with SI (concordant and discordant) in the LUEUR cohort (Table 4, Suppl Fig. 2)

The risk of SA during the follow-up was higher in patients with SI (concordant and discordant) than in patients without SI in the unadjusted model (0.6 %, 1.6 % and 3.6 % of patients did a SA in the groups without SI, with discordant, and with concordant SI, respectively). In the adjusted model, the risk of SA during the follow-up was higher only in the group with concordant SI. Among patients with SA during follow-up, 84.2 % present SI at baseline according to self- or clinician-rated evaluation. Percentages of SI detection between self- and clinician-rated questionnaires were close (76.3 % and 77.6 %, respectively).

3.5. Prediction of non-remission of depression at week 6 using the self- or/and clinician-rated SI (ROC analysis) (Suppl Table 1, Fig. 1)

In unadjusted and adjusted models, depression non-remission at week 6 was similarly predicted by the self- and clinician-rated MADRS-SI (both cohorts). In adjusted models, clinician-rated SI, self-rated SI, and both rating presented sensitivity values of 0.58, 0.51 and 0.51 and specificity values of 0.54, 0.60 and 0.59, respectively, in the GENESE cohort, and 0.58, 0.56 and 0.56 and 0.56, 0.57 and 0.57, in the LUEUR cohort.

3.6. Prediction of the risk of SA at week 6 by the self- or/and clinician-rated SI in the LUEUR cohort (ROC analysis) (Suppl Table 2, Fig. 2)

SA at week 6 was similarly predicted by self-rated SI, clinician-rated SI, and both scores in unadjusted and adjusted models. In adjusted models, the sensitivity values were 0.69, 0.72 and 0.73 and the specificity values were 0.72, 0.67 and 0.67 for clinician-rated SI, self-rated SI, and both ratings, respectively. The positive predictive values for both ratings were very low (0.03 or 0.04), whereas the negative predictive values were very high (0.99).

3.7. Comparison of patients who reported SI only in the self-rated questionnaire and patients without SI and with concordant SI (Suppl Tables 3 and 4)

When patients with only self-rated SI were compared with the other two groups, results were similar to those obtained for the whole discordant SI group, with the exception of age (older age at baseline in patients with only self-rated SI in the GENESE cohort), duration of current MDE (no difference in the GENESE cohort), and living alone (no differences between patients without SI and patients with only self-rated SI in the LUEUR cohort). Again, a gradient of severity from patients without SI to patients with only self-rated SI and concordant SI was observed for all dimensions assessed (*e.g.* depression, anxiety, hopelessness).

The results of the multivariate analysis were similar to those

Table 4

Risk of SA at week 6 in function of the suicidal ideation rating at baseline (self- and clinician-rating) in the LUEUR cohort.

Variables	SA during follow-up		Model 0 OR ^a	95 % CI ^a	p-value	Model 1 OR ^a	95 % CI ^a	p-value
	No	Yes						
Suicidal ideation								
No SI	2115 (99.4 %)	12 (0.6 %)				—	—	
Concordant SI	1427 (96.4 %)	53 (3.6 %)	6.55	3.61, 12.9	<0.001	3.76	1.85, 8.22	<0.001
Discordant SI	742 (98.5 %)	11 (1.5 %)	2.61	1.13, 5.99	0.022	1.37	0.50, 3.55	0.5

^a OR = Odds Ratio, CI = Confidence Interval

Model 0: Crude association

Model 1: Adjusted for age, sex, alcohol abuse, number of lifetime MDE, lifetime SA, Hopelessness, HADS-Anxiety, HADS-Depression, and Associated treatment.

obtained for the whole discordant SI group.

3.8. Depression remission in patients with only self-reported SI and in patients without SI and with concordant SI (Suppl Table 5)

The percentage of patients with depression remission at week 6 was lower (unadjusted and adjusted models) in patients with concordant SI compared with patients without SI and with only self-rated SI in the LUEUR cohort, but not in the GENESE cohort.

3.9. Comparison of the risk of SA in patients with only self-reported SI and in patients without SI and with concordant SI in the LUEUR cohort (Suppl Table 6)

The risk of SA during the follow-up was higher in patients with concordant SI than in patients without SI and with only self-rated SI (unadjusted and adjusted models). However, despite the absence of significance, the percentage of patients who did a SA during the follow-up was higher among patients with SI (concordant and only self-rated) than in patients without SI (3.6 % and 1.2 % versus 0.6 %).

3.10. Comparison of patients with only clinician-reported SI with patients without SI and patients with concordant SI (Suppl Tables 7 and 8)

Results for patients with only clinician-rated SI were similar to those obtained for the whole concordant SI group. Only history of lifetime SA (both cohorts), impulsivity and sleep disturbance scores (clinician-rated but not self-rated) were not different between patients with only clinician-rated SI and with concordant SI, whereas impulsivity tended to be different between these groups. Again, a gradient of severity from patients without SI to patients with only clinician-rated SI and concordant SI was observed for almost all dimensions assessed (e.g. depression, anxiety) and that were significant only in the LUEUR cohort. In the GENESE cohort, depression and anxiety scores were not different between patients without SI and with only clinician-rated SI, whereas they were higher in patients with concordant SI compared with the other two groups.

In the GENESE cohort, the multivariate analysis did not find any difference in depression, anxiety and impulsivity scores between patients with only clinician-rated SI and patients without SI. Similarly, history of SA and sleep disturbance score (clinician-rated) were not different between patients with only clinician-rated SI and concordant SI. Conversely, the percentage of patients with history of SA and sleep disturbance score were higher in these two groups than in patients without SI. In the LUEUR cohort, results were similar, except for anxiety (higher scores in patients with only clinician-rated SI than in patients without SI).

3.11. Comparison of depression remission in patients with only clinician-reported SI and in patients without SI and patients with concordant SI (Suppl Table 9)

In the GENESE cohort, depression remission rate at week 6 was lower

in patients with concordant SI (unadjusted model) and only clinician-rated SI (adjusted and unadjusted models) than in patients without SI. In the LUEUR cohort, depression remission rate was lower only in patients with concordant SI.

3.12. Comparison of the risk of SA in patients with only clinician-reported SI and in patients without SI and in patients with concordant SI in the LUEUR cohort (Suppl Table 10)

In the unadjusted model, the risk of SA during the follow-up was higher in patients with concordant SI and only clinician-rated SI. In the adjusted model, this risk was higher only in patients with concordant SI.

4. Discussion

To our knowledge, this is the first study that characterized discrepancies in SI rating by the patient and by the clinician using the same tool (MADR-SI) in two large cohorts of outpatients with unipolar depression. First, between 30 and 50 % of patients presented discordant SI evaluation (only self- or clinician-rated) and among them between 55 and 80 % had only self-rated SI. This suggest that at least one third of outpatients with unipolar depression may experience discordant SI rating and that more than half only self-report SI. This is in line with previous studies showing that patients tend to declare SI more often only in self-report questionnaires (Czyz et al., 2016; Gao et al., 2015; Nobile et al., 2023).

Globally, there were no significant differences only on sociodemographic characteristics between patients' groups, suggesting that patients with discordant SI are mainly different from those with concordant SI on clinical characteristics. Indeed, clinical characteristics were more severe in patients with current SI (i.e. concordant and discordant) than in patients without SI (e.g. higher, depression, anxiety, sleep disturbance and hopelessness scores) and in patients with concordant than discordant SI. Moreover, the percentage of patients with history of lifetime SA significantly increased from patients without SI to patients with discordant SI and to patients with concordant SI. Interestingly, when analyzing patients with only self-rated SI, clinical severity was quite similar to those of patients with concordant SI. Conversely, patients with only clinician-rated SI had similar levels of depression, anxiety, and hopelessness than patients without SI. The main difference between patients with clinician-rated SI and patients without SI concerned history of SA (i.e. fewer patients with history of SA in the without SI group), while there was no difference with the concordant SI group. In other words, patients with only self-rated SI had more severe clinical characteristics than patients without SI, while patients with only clinician-rated SI had similar clinical characteristics than patients without SI, except for history of lifetime SA.

These results suggest that clinicians may pay more attention to patients with history of SA, independently of the current clinical severity, and more often detect current SI in these patients, despite the more severe current clinical symptomatology. This can be explained by the fact that 40 to 55 % of suicide attempters and 10 to 15 % of people who died by suicide previously reported history of SA, and that history of lifetime SA is one of the best predictors of future SA and death by suicide

Table 1A
Sociodemographic and clinical characteristics of patients without and with suicidal ideation (self-rated and/or clinician-rated) in the GENESE cohort.

Variables	Without SI, 1785 ^a	Discordant SI, 754 ^a	Concordant SI, 774 ^a	Global p- value	Without SI vs Concordant SI			Without SI vs Discordant SI			Concordant SI vs Discordant SI		
					OR ^b	95 % CI ^b	p-value	OR ^b	95 % CI ^b	p-value	OR ^b	95 % CI ^b	p-value
Sex				>0.9									
Men	682 (38%)	284 (38%)	299 (39%)										
Women	1103 (62%)	470 (62%)	475 (61%)										
Age	49 (15)	50 (15)	49 (15)	0.08									
Marital status				>0.9									
In couple	1444 (81%)	616 (82%)	631 (82%)										
Single	333 (19%)	136 (18%)	140 (18%)										
Study level				0.068									
Secondary school	1006 (57%)	421 (56%)	398 (52%)										
Below secondary school	763 (43%)	328 (44%)	368 (48%)		1.22	1.03, 1.45	0.022	1.03	0.86, 1.22	0.8	0.84	0.69, 1.03	0.1
Professional activity				0.001									
Yes	1015 (57%)	395 (53%)	381 (50%)		—	—		—	—		—	—	
No	753 (43%)	355 (47%)	382 (50%)		1.35	1.14, 1.60	<0.001	1.21	1.02, 1.44	0.028	0.9	0.73, 1.10	0.3
Current MDE duration				0.009									
<2 months	619 (35%)	221 (30%)	240 (32%)		—	—		—	—		—	—	
2–6 months	712 (41%)	306 (41%)	295 (39%)		1.07	0.87, 1.31	0.5	1.2	0.98, 1.48	0.075	1.13	0.88, 1.44	0.3
>6 months	417 (24%)	211 (29%)	219 (29%)		1.35	1.09, 1.69	0.007	1.42	1.13, 1.78	0.002	1.05	0.80, 1.36	0.7
First MDE				<0.001									
No	711 (40%)	366 (49%)	412 (53%)		—	—		—	—		—	—	
Yes	1068 (60%)	387 (51%)	360 (47%)		0.58	0.49, 0.69	<0.001	0.7	0.59, 0.84	<0.001	1.21	0.99, 1.48	0.063
Number of MDE	1.01 (1.96)	1.45 (2.80)	1.64 (2.58)	<0.001	1.13	1.09, 1.18	<0.001	1.09	1.05, 1.13	<0.001	0.97	0.93, 1.01	0.2
Age at first MDE	37 (14)	37 (14)	34 (13)	0.02	0.99	0.98, 1.00	0.01	1	0.99, 1.01	>0.9	1.01	1.00, 1.02	0.028
Lifetime SA				<0.001									
No	1630 (94%)	620 (86%)	571 (75%)		—	—		—	—		—	—	
Yes	106 (6.1%)	104 (14%)	187 (25%)		5.04	3.90, 6.53	<0.001	2.58	1.94, 3.43	<0.001	0.51	0.39, 0.67	<0.001
Number of SA	1.41 (0.98)	1.57 (1.67)	1.95 (1.84)	0.011	1.31	1.09, 1.62	0.007	1.09	0.90, 1.35	0.4	0.88	0.74, 1.01	0.085
MADRS- Sleep (clinician-rated)				<0.001									
<3	472 (27%)	124 (16%)	79 (10%)		—	—		—	—		—	—	
≥3	1308 (73%)	629 (84%)	688 (90%)		3.14	2.45, 4.08	<0.001	1.83	1.47, 2.29	<0.001	0.58	0.43, 0.79	<0.001
MADRS-Sleep (self-rated)				<0.001									
<3	599 (34%)	158 (21%)	111 (14%)		—	—		—	—		—	—	
≥3	1180 (66%)	591 (79%)	660 (86%)		3.02	2.42, 3.79	<0.001	1.9	1.56, 2.33	<0.001	0.63	0.48, 0.82	<0.001
HADS-Anxiety	13.2 (3.4)	14.3 (3.3)	15.2 (3.5)	<0.001	1.19	1.16, 1.22	<0.001	1.1	1.07, 1.13	<0.001	0.93	0.90, 0.95	<0.001
HADS-Agitation	5.72 (1.62)	6.22 (1.80)	5.95 (1.66)	<0.001	1.20	1.14, 1.26	<0.001	1.09	1.04, 1.15	<0.001	0.91	0.86, 0.97	0.003
HADS-Psychic anxiety	7.52 (2.44)	9.01 (2.33)	8.38 (2.38)	<0.001	1.30	1.25, 1.35	<0.001	1.16	1.12, 1.20	<0.001	0.89	0.85, 0.93	<0.001
HADS-Depression	13.2 (3.7)	14.5 (3.7)	15.7 (3.6)	<0.001	1.21	1.18, 1.25	<0.001	1.1	1.08, 1.13	<0.001	0.91	0.89, 0.94	<0.001
HADS total score	26 (6)	29 (6)	31 (6)	<0.001	1.15	1.13, 1.17	<0.001	1.08	1.06, 1.09	<0.001	0.94	0.92, 0.96	<0.001
Impulsivity	36 (6)	37 (6)	38 (7)	<0.001	1.08	1.06, 1.09	<0.001	1.04	1.03, 1.06	<0.001	0.97	0.95, 0.98	<0.001
Associated treatment				<0.001									
No	910 (51%)	306 (41%)	267 (34%)		—	—		—	—		—	—	
Yes	875 (49%)	448 (59%)	507 (66%)		1.97	1.66, 2.35	<0.001	1.52	1.28, 1.81	<0.001	0.77	0.63, 0.95	0.014

(continued on next page)

Table 1A (continued)

Variables	Without SI, 1785 ^a	Discordant SI, 754 ^a	Concordant SI, 774 ^a	Global p- value	Without SI vs Concordant SI			Without SI vs Discordant SI			Concordant SI vs Discordant SI		
					OR ^b	95 % CI ^b	p-value	OR ^b	95 % CI ^b	p-value	OR ^b	95 % CI ^b	p-value
Treatment instauration/ Change				<0.001									
Instauration	1480 (83 %)	578 (78 %)	587 (76 %)		—	—		—	—		—	—	
Change	293 (17 %)	164 (22 %)	181 (24 %)		1.56	1.26, 1.92	<0.001	1.43	1.16, 1.77	<0.001	0.92	0.72, 1.17	0.5

^a n (%); Mean (SD).

^b OR = Odds Ratio, CI = Confidence Interval.

(Franklin et al., 2017; Monnin et al., 2012; OMS, *Prévention du Suicide*, 2018, s. d.). Yet, recent studies suggest that patients with current suicidal depression (i.e. depression with current SI) are at high suicidal risk independently of history of SA (Nobile et al., 2022; Nobile et al., 2021). For example, in a study that followed 646 inpatients for 1 year, the risk of SA and suicidal events (i.e. hospitalization for SI, actual, aborted or interrupted suicide attempt) during the follow-up was higher (2- and 1.8-fold, respectively) in patients with SI, independently of history of SA (Nobile et al., 2022). In addition, a recent meta-analysis found that SI is an important risk factor of future death by suicide in psychiatric and non-psychiatric patients (Hubers et al., 2018). In our study, patients with only self-rated SI presented higher scores for depression, anxiety, hopelessness and sleep disturbances (clinical characteristics involved in suicidal behavior (Bentley et al., 2016; Bernert et al., 2015; Ribeiro et al., 2018)) than patients without SI. Thus, clinicians should also pay attention to potential current SI in patients without history of SA. This is crucial because up to 60 % of individuals will die at their first SA (Bostwick et al., 2016).

Our study found that the depression remission rate at week 6 was higher in patients with discordant SI (but not in the adjusted model for the GENESE cohort). Results were quite similar when patients with only self-rated SI were analyzed. This supports the hypothesis that patients with discordant SI seem to have less severe clinical characteristics, especially depression levels. Interestingly, in the GENESE cohort, when comparing patients without SI, with concordant SI and with only clinician-rated SI, remission rates were lower only in patients with clinician-rated SI. This may suggest that these patients may have treatment-resistant depression (TRD) and that clinicians considered them as having SI because this depression type is strongly associated with suicidal behavior (Reutfors et al., 2021). On the other hand, this support previous studies founding that SI within depressed patients is a risk factor of non-remission (Kautzky et al., 2019; Lopez-Castroman et al., 2016; Nobile et al., 2021; Weissman et al., 2021). This is all the most interesting since treatments recommended in TRD are quite similar to those efficient in suicidal patients. Indeed, augmentation therapies with antidepressants and antipsychotics, lithium, ketamine or esketamine are recommended in TRD and efficient in suicidal patients (Abbar et al., 2022; Baldessarini et al., 2006; Canuso et al., 2018; Reeves et al., 2008; Yroni et al., 2024). Finally, a recent study found that patients with depression remission but persistence of SI (self-rated) were at higher risk of recurrence of depression independently of residual symptoms (Heuschen et al., 2022). These results support the necessity to systematically assess presence of SI even within patients with remission depression.

In the unadjusted model, the risk of SA during the follow-up was higher in patients with discordant SI as in patients with concordant SI than in patients without SI. However, after adjusting for potential confounders, the risk remained higher only for patients with concordant SI. This may be due to the very small number of SA during the follow-up (low statistical power). When comparing separately patients with only self- or clinician-rated SI, the risk of SA during the follow-up was higher

only in patients with concordant SI, but again the small number of attempters might have decreased the statistical power. Nevertheless, these results suggest that patients with concordant SI and with discordant SI, to a lower extent, are at higher suicidal risk in the short-term. This is in line with previous results on suicidal depression (Nobile et al., 2022, 2020, 2021). Interestingly, more than 70 % of patients that did a SA during follow-up present SI either self- or clinician-rated, reinforcing the necessity to assess systematically SI.

Finally, when assessing the capacity to predict depression remission and suicide risk similar results (specificity, sensibility, positive and negative predictive values) were obtained using only the self- or clinician-rated SI or both. This suggest that clinicians could assess SI presence with a self-rated questionnaire or a clinician interview because they have similar sensitivity and specificity. On the basis of our results, the crucial thing is to assess SI, whatever the method used. Yet, this is not systematically done, especially by general practitioners (Elzinga et al., 2023; Vannoy and Robins, 2011). In addition, as said previously, some patients do not disclose their SI to their practitioners by fear of stigma or overreaction (Richards et al., 2019). Thus, it appears primordial for clinicians to establish a trust climate with patients by implementing an empathic relationship to foster alliances with patients and to encourage them to disclose their SI (Pompili, 2024, s. d.). Unfortunately, medical formation mainly trained clinicians to use psychometrics tools and for example, formation on formulation of questions on SI and suicidal behaviors should be done as well as formation to create a trust climate with their patients. Systematic evaluation of psychological pain could help to create this climate by enriching a more empathic approach, this could be all the most interesting since this last has been shown to strongly predict suicidal act (Courtet and Baca-García, 2024). Moreover, general practitioners should be systematically offered a complete formation to assess suicide risk (e.g. which patients? When? How?), since they may not assess suicidal risk or may not assess it correctly if they are not trained for it. Moreover, it is important to improve the detection of patients at risk of suicidal act by concomitantly assessing SI presence and other variables of interest. In one of our recent studies using data from the same cohorts, we found that the most important factors associated with suicidal risk in patients with current SI were limited improvement in depression and SI in the first two weeks of treatment (Porras-Segovia et al., 2023). Thus, it could be necessary to detect patients with SI and poor response to treatment in the short term.

Our study has some limitations. First, the lack of studies on patients with discrepancies between self- and clinician-rated SI, especially using the same suicidal item, did not allow us to compare our results or to put them in perspective with other studies. However, this limitation highlights the fact that studies of this kind are necessary, particularly because a large part of patients will declare SI only in self-report questionnaires. Second, the limited number of SA during the follow-up in the GENESE cohort did not allow comparing the suicidal risk in the three groups. Then, the use of psychometrics tools to assess suicide risk can also be considered as a limit. Indeed, current screening instruments did not show sufficient accuracy to predict SA and suicide with globally

Table 1B
Sociodemographic and clinical characteristics of patients without and with suicidal ideation (self-rated and/or clinician-rated) in the LUEUR cohort.

Variables	Without SI, 2368 ^a	Discordant SI, 822 ^a	Concordant SI, 1595 ^a	Global p- value	Without SI vs Concordant SI			Without SI vs Discordant SI			Concordant SI vs Discordant SI		
					OR ^b	95 % CI ^b	p-value	OR ^b	95 % CI ^b	p-value	OR ²	95 % CI ^b	p-value
Sex				0.3									
Men	857 (36%)	288 (35%)	607 (38%)										
Women	1511 (64%)	534 (65%)	988 (62%)										
Age	47 (14)	48 (14)	47 (14)	0.5									
Marital status				>0.9									
In couple	1939 (82%)	674 (82%)	1317 (83%)										
Single	416 (18%)	144 (18%)	274 (17%)										
Living alone				<0.001									
No	1586 (68%)	497 (61%)	964 (61%)		—	—	—	—	—	—	—	—	—
Yes	756 (32%)	315 (39%)	606 (39%)		1.32	1.15, 1.51	<0.001	1.33	1.13, 1.57	<0.001	1.01	0.85, 1.20	>0.9
Study level				0.2									
Secondary school	1415 (60%)	478 (59%)	906 (57%)										
Below secondary school	931 (40%)	338 (41%)	673 (43%)										
Professional activity				<0.001									
Yes	1344 (60%)	433 (56%)	784 (52%)		—	—	—	—	—	—	—	—	—
No	898 (40%)	347 (44%)	730 (48%)		1.39	1.22, 1.59	<0.001	1.2	1.02, 1.41	0.03	0.86	0.72, 1.02	0.09
Current MDE duration	8.0 (20.2)	7.3 (9.2)	7.8 (12.1)	0.5									
Number of MDE	1.35 (6.11)	1.32 (3.54)	2.26 (8.81)	<0.001	1.02	1.01, 1.03	<0.001	1	0.98, 1.01	>0.9	0.97	0.93, 0.99	0.022
Age at first MDE	36 (13)	34 (12)	33 (12)	<0.001	0.99	0.98, 0.99	<0.001	0.99	0.98, 1.00	0.10	1.01	1.00, 1.02	0.14
Alcohol abuse				0.028									
No	2243 (95%)	765 (93%)	1481 (93%)		—	—	—	—	—	—	—	—	—
Yes	116 (4.9%)	54 (6.6%)	108 (6.8%)		1.41	1.08, 1.85	0.013	1.36	0.97, 1.89	0.067	0.97	0.69, 1.35	0.9
Lifetime SA				<0.001									
No	2161 (91%)	654 (80%)	1067 (67%)		—	—	—	—	—	—	—	—	—
Yes	203 (8.6%)	167 (20%)	522 (33%)		5.21	4.37, 6.23	<0.001	2.72	2.17, 3.40	<0.001	0.52	0.43, 0.64	<0.001
HADS-Anxiety	13.4 (3.3)	14.5 (3.3)	15.6 (3.3)	<0.001	1.22	1.19, 1.24	<0.001	1.1	1.07, 1.13	<0.001	0.9	0.88, 0.93	<0.001
HADS-Agitation	7.19 (1.34)	7.05 (1.34)	7.01 (1.36)	<0.001	0.93	0.88, 0.97	0.002	0.91	0.85, 0.96	0.001	0.98	0.92, 1.04	0.5
HADS-Psychic anxiety	8.70 (1.60)	8.05 (1.43)	8.36 (1.57)	<0.001	0.75	0.72, 0.79	<0.001	0.87	0.83, 0.92	<0.001	1.15	1.08, 1.21	<0.001
HADS-Depression	13.9 (3.6)	14.9 (3.5)	16.9 (3.2)	<0.001	1.29	1.27, 1.32	<0.001	1.09	1.06, 1.11	<0.001	0.84	0.82, 0.86	<0.001
HADS Total score	27.3 (5.7)	29.4 (5.5)	32.5 (5.3)	<0.001	1.18	1.17, 1.20	<0.001	1.07	1.05, 1.08	<0.001	0.9	0.89, 0.92	<0.001
Hopelessness	14.9 (4.1)	15.9 (3.6)	17.4 (2.7)	<0.001	1.26	1.23, 1.29	<0.001	1.07	1.05, 1.10	<0.001	0.85	0.83, 0.88	<0.001
Associated treatment				<0.001									
No	2108 (90%)	661 (82%)	1172 (76%)		—	—	—	—	—	—	—	—	—
Yes	247 (10%)	150 (18%)	376 (24%)		2.74	2.30, 3.27	<0.001	1.94	1.55, 2.41	<0.001	0.71	0.57, 0.87	0.001
Treatment instauration/ Change				<0.001									
Instauration	1959 (85 %)	631 (79 %)	1114 (72 %)		—	—	—	—	—	—	—	—	—
Change	350 (15 %)	166 (21 %)	431 (28 %)		2.17	1.85, 2.54	<0.001	1.47	1.20, 1.81	<0.001	0.68	0.55, 0.83	<0.001

^a n (%); Mean (SD).

^b OR = Odds Ratio, CI = Confidence Interval

MDE: Major depressive episode; SA: Suicide attempt; HADS: Hospital Anxiety and Depression Scale; MADRS: Montgomery-Åsberg Depression Rating Scale.

Table 2A

Association of sociodemographic and clinical data with discrepancies in the self- and clinician-rating of suicidal ideation in the GENESE cohort (multivariate analysis).

Variables	p-value	Without SI vs Concordant SI			Without SI vs Discordant SI			Concordant SI vs Discordant SI		
		OR ^a	95 % CI ^a	p-value	OR ^a	95 % CI ^a	p-value	OR ^a	95 % CI ^a	p-value
Professional activity	0.2									
Yes										
No										
Current MDE duration	0.10									
<2 months										
2–6 months										
>6 months										
First MDE	0.005									
No		—	—		—	—		—	—	
Yes		0.74	0.59, 0.92	0.007	0.78	0.64, 0.96	0.017	1.07	0.84, 1.36	0.6
Lifetime SA	<0.001									
No		—	—		—	—		—	—	
Yes		3.99	2.91, 5.51	<0.001	2.14	1.55, 2.97	<0.001	0.53	0.39, 0.73	<0.001
MADRS-Sleep (clinician-rated)	<0.001									
<3		—	—		—	—		—	—	
≥3		2.26	1.69, 3.06	<0.001	1.68	1.32, 2.17	<0.001	0.75	0.53, 1.05	0.092
HADS-Anxiety	<0.001	1.09	1.05, 1.13	<0.001	1.06	1.02, 1.09	<0.001	0.97	0.93, 1.01	0.12
HADS-Depression	<0.001	1.17	1.13, 1.20	<0.001	1.07	1.04, 1.11	<0.001	0.92	0.89, 0.95	<0.001
Impulsivity	0.037	1.02	1.00, 1.04	0.026	1.01	0.99, 1.03	0.2	0.99	0.97, 1.00	0.14
Associated treatment	0.006									
No		—	—		—	—		—	—	
Yes		1.33	1.08, 1.65	0.007	1.24	1.02, 1.51	0.030	0.90	0.71, 1.14	0.4

^a OR = Odds Ratio, CI = Confidence Interval

MDE: Major depressive episode; SA: Suicide attempt; HADS: Hospital Anxiety and Depression Scale; MADRS: Montgomery-Åsberg Depression Rating Scale.

Table 2B

Association of sociodemographic and clinical data with discrepancies in the self- and clinician-rating of suicidal ideation in the LUEUR cohort (multivariate analysis).

Variables	p-value	Without SI vs Concordant SI			Without SI vs Discordant SI			Concordant SI vs Discordant SI		
		OR ^a	95 % CI ^a	p-value	OR ^a	95 % CI ^a	p-value	OR ^a	95 % CI ^a	p-value
Living alone	0.003									
No		—	—		—	—		—	—	
Yes		1.23	1.04, 1.45	0.017	1.31	1.09, 1.57	0.004	1.01	0.82, 1.23	>0.9
Professional activity	0.7									
Yes										
No										
Alcohol abuse	0.6									
No										
Yes										
Lifetime SA	<0.001									
No		—	—		—	—		—	—	
Yes		3.70	2.99, 4.60	<0.001	2.29	1.78, 2.94	<0.001	0.61	0.48, 0.77	<0.001
HADS-Anxiety	<0.001	1.10	1.07, 1.13	<0.001	1.06	1.03, 1.09	<0.001	0.96	0.93, 0.99	0.012
HADS-Depression	<0.001	1.17	1.14, 1.21	<0.001	1.04	1.01, 1.07	0.011	0.88	0.85, 0.91	<0.001
Hopelessness	<0.001	1.13	1.10, 1.16	<0.001	1.04	1.01, 1.07	0.005	0.91	0.88, 0.95	<0.001
Associated treatment	<0.001									
No		—	—		—	—		—	—	
Yes		1.93	1.54, 2.40	<0.001	1.67	1.30, 2.14	<0.001	0.76	0.59, 0.97	0.029

^a OR = Odds Ratio, CI = Confidence Interval

MDE: Major depressive episode; SA: Suicide attempt; HADS: Hospital Anxiety and Depression Scale; MADRS: Montgomery-Åsberg Depression Rating Scale.

Table 3A

Remission of depression at week 6 in function of the suicidal ideation rating at baseline (self- and clinician-rating) in the GENESE cohort.

Variables	Remission of depression		Model 0			Model 1		
	No	Yes	OR ^a	95 % CI ¹	p-value	OR ^a	95 % CI ^a	p-value
Suicidal ideation								
No SI	738 (46.5 %)	850 (53.5 %)	—	—		—	—	
Concordant SI	390 (54.9 %)	320 (45.1 %)	1.40	1.18, 1.68	<0.001	1.18	0.97, 1.45	0.10
Discordant SI	352 (51.1 %)	337 (48.9 %)	1.20	1.01, 1.44	0.043	1.12	0.92, 1.36	0.26

^a OR = Odds Ratio, CI = Confidence Interval

Model 0: Crude association

Model 1: Adjusted for age, sex, first MDE, lifetime SA, MADRS-Sleep (clinician-rated), HADS-Anxiety, HADS-Depression, Plutchik Impulsivity, and associated treatment.

Table 3B

Remission of depression at week 6 in function of the suicidal ideation rating at baseline (self- and clinician-rating) in the LUEUR cohort.

Variables	Remission of depression		Model 0			Model 1		
	No	Yes	OR ^a	95 % CI ^a	p-value	OR ^a	95 % CI ^a	p-value
Suicidal ideation								
No SI	977 (46.7 %)	1117 (53.3 %)	—	—	—	—	—	—
Concordant SI	845 (57.4 %)	628 (42.6 %)	1.54	1.35, 1.76	<0.001	1.30	1.11, 1.53	0.001
Discordant SI	373 (49.3 %)	384 (50.7 %)	1.11	0.94, 1.31	0.2	1.01	0.84, 1.21	>0.9

^a OR = Odds Ratio, CI = Confidence Interval

Model 0: Crude association

Model 1: Adjusted for age, sex, number of lifetime MDE, Lifetime SA, Hopelessness, HADS-Anxiety, HADS-Depression and Associated treatment.

80 % sensitivity (*i.e.* catching all suicidal individuals) and 50 % specificity (*i.e.* not considering nonsuicidal patients as suicidal) (Runeson et al., 2017; Ryan and Oquendo, 2020). Our study also has some strength. First, we performed the same analyses in two independent large cohorts and found quite similar results. Second, this is the first study that characterized patients with unipolar depression and discordant SI evaluation and that monitored depression remission and suicidal risk in the short-term. Third, evaluating the presence of SI with the same suicidal item allowed showing that although the item was the same, SI rating discrepancies between clinician and patient concerned up to 50 % of patients (Tables 1A, 1B, 2A, 2B, 3A, 3B).

In conclusion, patients with SI (concordant and discordant) have more severe clinical characteristics and are the most at risk of suicidal act during the follow-up and have lower depression remission rates. Patients with discordant SI also tended to present poorer outcomes during the follow-up. Self- or/and clinician-rated SI similarly predicted non-remission of depression and suicidal risk in the short-term. Based on our results it appears that SI assessment is crucial, whatever the method used. Lastly, the detection of patients at risk of SA could be improved by combining SI assessment with other variables of interest (*e.g.* response to treatment in the first two weeks).

Funding

This study did not receive funding from any sources. The research did not receive specific funding but was performed as part of the employment of the authors: CHU Montpellier, France.

CRedit authorship contribution statement

Bénédicte Nobile: Writing – original draft, Investigation, Conceptualization. **Elia Gourguechon-Buot:** Formal analysis. **Philip Gorwood:** Writing – review & editing. **Emilie Olié:** Writing – review & editing. **Philippe Courtet:** Writing – review & editing, Supervision, Conceptualization.

Declaration of competing interest

None of the authors declare conflict of interests related to this manuscript.

Acknowledgements

None.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2024.115833](https://doi.org/10.1016/j.psychres.2024.115833).

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