DPSMD-DSI-RQSHA-GMES

Suicide Risk Assessment Guide
Support from the scientific literature for inclusion of criteria

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TAKE HOME MESSAGE
Our review of the scientific literature surrounding suicide and suicidal behaviours supports considering the following features when evaluating suicide risk:
- Hopelessness
- Substance use
- Impulsivity
- Lack of social support
- Prior SA (number, method, intent)
- Depressive features
- Psychiatric disease
- Physical disease (especially with chronic pain)
- Adverse life events
- Belonging to a vulnerable population
- Adverse perinatal circumstances

INTRODUCTION

Three years after the World Health Organization's recommendations for improved suicide prevention efforts,[1] the dynamics of global suicide rates remain a cause for concern. A recent population-based study found that premature deaths increased in North America between 1999 and 2014, partly due to suicidal behaviours.[2] In Québec, the annual number of deaths by suicide have plateaued since 2011 at a still-elevated rate of 13.3 per 100 000 inhabitants, equivalent to roughly three deaths by suicide per day.[3]

Providing appropriate medical and psychosocial responses to those at risk of self-harm is recognized as one of the most effective actions in the recommended multimodal

strategies.[4,5] However, such epidemiologically-sound, common-sense approaches are not necessarily straightforward to apply in clinical practice. To adapt their interventions, professionals are required to evaluate the concrete "at-risk" nature of each patient. It is therefore crucial to adequately appraise the level of suicide risk and understand the characteristics of a well-defined risk factor (RF).

As for any clinical approach, evaluating the risk of imminent suicidal behaviour requires a probabilistic reasoning to determine both the presence of the morbid condition and the likelihood of complications. However, contrary to other common conditions, suicidality assessment embeds both diagnostic and prognostic dimensions, as the likelihood of the morbid outcome – on which any decision should be grounded – is precisely defined by the current level of risk. Such probabilistic processing requires integrating multiple, multi-level, contextualized parameters into a single overall assessment suitable for decision-making.

To carry out this complicated but crucial task, one could refer to evidenced-based practices that propose to integrate "individual clinical expertise with the best available external clinical evidence from systematic research".[6] In the field of suicidology, individual clinical expertise appeals to the professional's acquired literacy of suicide and experience in caring for distressed patients. On the other hand, clinical evidence comes from the considerable amount of studies that have tested the association between suicide-related outcomes and specific psychopathological, sociodemographic or environmental conditions, referred to as risk factors (RF). However, analysis of this wealth of data is challenging due to the heterogeneity of study design and quality.

For the sake of helping professionals on the ground who are confronted with potentially suicidal individuals, the Centre intégré universitaire de santé et de services sociaux de l'Ouest-de-l'Île-de-Montréal developed a guide designed to reinforce their clinical wisdom and aid their decision-making process. The present study aims to provide a solid and operational empirical background to this clinical tool. To do so, we have reviewed the current literature addressing each component of the grid. The overarching goal of this work is to support professional practice regarding at-risk individuals with the most recent and the highest-level evidence.

METHODS

1. Research strategy

In order to fit with the grid structure, we opted for a hypothesis-driven strategy that focused on the pre-identified RFs to be explored. Searches were conducted on the Medline database, following the procedure depicted Figure 1.

First, potentially relevant reports were extracted by iteratively constructing search algorithms corresponding to the grid's risk categories. For each of them, related keywords

(presented Table 1) were combined to the terms "Suicide [Mesh]", "suicidal behaviour" or "self-harm" using Boolean operators. Results were limited to the last 5 years.

Table 1. Research terms integrated in the algorithmic iterations

Risk factor to be explored	Corresponding keywords
PH of previous attempt	("previous attempt" OR "previous suicide attempt") OR ("prior attempt" OR "attempt history") OR "antecedents"
Family history of suicide	"family history"
Family history of psychiatric illness	("relative" AND "psychiatric illness") OR ("family" AND "mental illness") OR ("family history" AND Mental Disorders [Mesh]")
Impulsivity and aggression	("impulsivity" OR "aggression") AND ("aggression") AND ("impulsivity") AND ("Impuls*" OR "aggressiv*")
Anxiety	("anxiety" OR "anxiousness")
Despair or hope	("despair" OR "hope")
Adversity	("abuse" OR "maltreatment" OR "adversity" OR "neglect")
Intent or planning	("planning" OR "intent")
Substance misuse, addiction	("substance misuse" OR "addiction") OR ("Substance-Related Disorders"[Mesh])
Autonomy, independence	("autonomy" OR "independence") OR "self-reliance"
Social (friends, family, community) support	("family support" OR "community support" OR "friend support") OR "isolation"
Access to means	"access to means" OR ("access" AND "method")

The number of references retrieved with this algorithm was too large to be screened within a reasonable timeframe. We incorporated a quality filter in accordance with our pre-defined intention to retain only studies with the highest level of evidence. Quality-related keywords were chosen in reference to the STROBE and PRISMA guidelines.[7,8] This resulted in adjunction of the term "(cohort OR longitudinal OR prospective OR meta-analysis)" to each iteration of the algorithm.

Similarly, systematic searches for literature concerning the contribution of psychiatric illness to suicide risk generated too high a volume of results to be thoroughly assessed within the scope of this project. We therefore relied on a recent well-conducted systematic review from Hawton and van Heeringen[9], using the review's bibliography to identify the most relevant studies about mental disorders as RFs for suicidality.

In Figure 1, the final algorithm structure is exemplified by the "hopelessness" iteration, but it should be kept in mind that the same pattern was repeated for each of the other risk-factors.

In a second step, possibly relevant reports were screened for eligibility on title and abstract according to the following selection criteria:
- Historical or prospective longitudinal cohort studies, defined as research designs where data were collected at at least two sufficiently distinct time points for the same individuals, or where the outcome was continually recorded during a sufficient period of time;
- Studies evaluating the significance of one or several suicide-related clinical RF. This criterion implied that:

- The outcome (dependent variable) of interest had to be clearly defined as either suicidal behaviour (SB), suicide completion (SC), suicide attempt (SA), suicide ideation (SI), or deliberate self-harm (DSH);
- Exposure to the hypothetical RF had to be measured prior the monitoring of the outcome occurrence;
- Exposure to the hypothetical RF had to be measured at an individual level;
- The hypothetical RF had to be clinical in nature;
- English or French language.

Exclusion criteria during the screening step were:
- Observational studies with medium or low level of evidence: case-control studies (including nested case-control), cross-sectional studies, before/after times series and case reports;
- Cohort studies without comparative analysis (prevalence or incidence calculation);
- Randomized control trials;
- Non-empirical studies;
- Population-based studies (exposure to the hypothetical RF measured at the group scale);
- Qualitative reviews;
- Studies assessing RF for homicide-suicide;
- Studies assessing RF for suicide behaviour-related characteristics (e.g. lethality, method, intent, etc.) instead of suicide behaviour per se;
- Non-English or French language.

The last step consisted of assessing the eligibility of articles for analysis after full-text screening. Secondary exclusion criteria were:
- Exclusion criteria from screening step that was not detectable from the title or the abstract;
- Outcome poorly or unclearly defined;
- Lacking numerical results (notably concerning significance or effect size indices).

Figure 1. Flow chart (adapted from PRISMA standards)
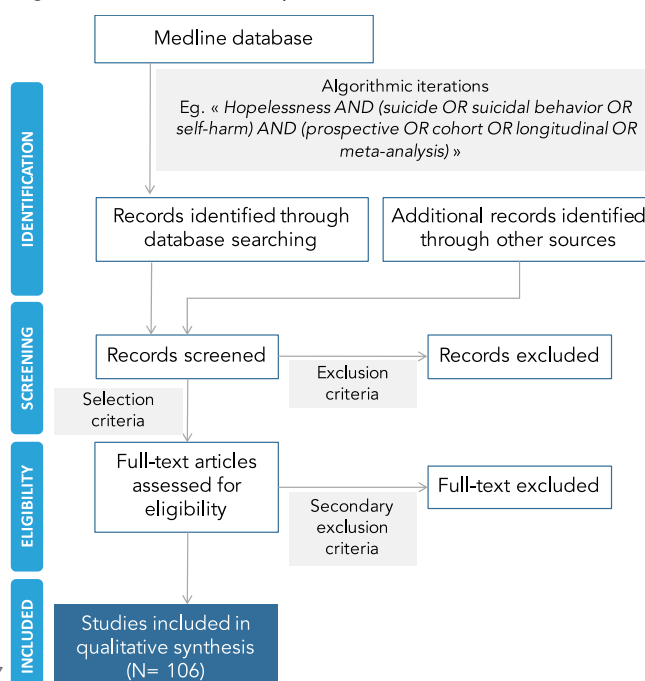
2. Analytical procedure

The parameters of relevant methods and the results were extracted according to a strictly-defined template. We only retained significant findings with available quantified data. Non-significant findings were not reported, except when needed to improve understanding of other significant results. By contrast, we indicated whenever data was missing to complete our analysis template in order to pinpoint possible methodological shortcomings.

RISK FACTORS DEFINED

1. How are risk factors defined in the context of suicide?

Broadly speaking, a risk factor can be defined as a characteristic, variable, or hazard that prospectively increases the likelihood of adverse outcomes in a measurable way.[10] In the field of suicidology, it corresponds to any clinical, biological or neural trait or state that may indicate to the clinician that there is a higher probability for a suicide-related event to occur in a given patient. As paraclinical measurements have not yet entered routine practice, we have focused on clinical RFs.

Due to its probabilistic nature, a RF is, by definition, unmeasurable for a single individual. Epidemiological approaches allow us to approximate the risk at a population level by making the assumption that a causal relationship ties the RF to its outcome (in this case, SB)[11], and that this causal relationship holds true when examining a large of number events.[12]. By using the mean of averages in a representative sample, epidemiology scientifically measures risk as an objective, depersonalized and quantitative value[13]. Such inductively estimated measures for epidemiological RFs are then made available for clinicians to inform their practice via deduction.

There are two important caveats when considering RFs:
1. A RF should not be considered equivalent to a cause. Probabilistic association between a variable and an outcome is only suggestive of for causal underlying relationship. To be valid, the assumptions need to be supported by other converging arguments, such as prior events, biological plausibility, or reversibility.[14]
2. A RF does not actually quantify the likelihood of an outcome occurring in a singular individual. In line with evidence-based principles, this epidemiological value should always be put in perspective with complex clinical and contextual considerations that modulate theoretical probabilities.

2. How should risk estimates be interpreted?

In epidemiological studies, any psychosocial, psychopathological, environmental or sociodemographic characteristic that is statistically associated with an adverse outcome could be called a RF when the association is positive, or a protective factor (PF) when the association is negative. However, the notion of "statistical association" is problematically unprecise. Various types of study designs and analytical strategies could achieve quantification of risk or protection. Although the concepts of RF or PF include all the resulting indices, these indices should not all be interpreted in the same way. Table 2 summarizes all possible study configurations and corresponding risk estimates. Interpretation of such risk estimates should be tempered by the methodology used in the study, especially the nature of the outcome. Figure 2 complements Table 2 by illustrating possible study designs and comparisons and showing how SMR, RR, and OR are calculated.

Table 2. Different possible risk estimates and their corresponding combinations of study design and analytical strategies

Design	Comparison	Comparator	Outcome	Statistical analysis	Estim.
Descriptive	- External	General population	Outcome occurrence rates	Observed rate/expected rate	SMR
Analytical	- Within-cohort	Cohort subdivision	Outcome mean value	Linear regression	a
	- Exposed – non-exposed	Control cohort	Outcome occurrence rates	Logistic regression	OR
			Outcome occurrence counts	Poisson regression	RR
			Time until the outcome occurs	Cox-regression	HR

SMR. Standardized Mortality Ratio, a. linear regression parameter, OR. Odd Ratio,
RR. Relative Risk, HR. Hazard Ratio

A few basic rules to interpret a RF:
- RF is a relative concept: a condition or population could only be considered at risk in comparison to another condition or population;
- An exception to the previous rule is the case of continuous variables, for which predictive value is dose-dependent: the higher the mean value of the predictor, the higher the probability of outcome occurrence;
- A RF is only relevant within the population from which the study sample was drawn.

3. How strong is the risk factor?

Dichotomous RF estimates (e.g. presence or absence of the risk condition) are analytically equivalent to ratios between risk in exposed and risk in non-exposed individuals. As a consequence, a RR, OR, or HR that statistically differs from 1 is defined as a RF (if above) or a PF (if below). However, in addition to defining the nature of the prediction, estimates also measure the strength of the association. Borenstein et al. proposed the following scale, which we use as a reference to interpret our results.[15]

- **Strong RF or PF:** |RR, OR or HR| ≥4
- **Moderate RF or PF:** |RR, OR or HR| = [2.5-4[
- **Weak RF or PF:** |RR, OR or HR| =]1-2.5]

Figure 2. Schematization of cohort study designs employed to assess the predictive value of risk factors, and corresponding formula for rate estimates. **Panel A:** Descriptive cohort design. Standardized Mortality Ratio (SMR) is the ratio between observed (o) and expected (e) number of deaths. Expected value is obtained by summing the product of mortality rate (r) and the population effective (n) of each of the population strata (i). **Panel B.** Analytical design with within-cohort comparisons. **Panel C.** Analytical design, type exposed–non-exposed. Relative risk (RR) is the risk of outcome occurrence in the exposed cohort/cohort subdivision (R_E) by the same risk in the non-exposed cohort/cohort subdivision (R_{NE}). When inaccessible, RR can be approximated by Odd Ratios (OR). Odds ratios represent the probability that the event occurs (R) by the probability that it doesn't occur (1-R). OR is calculated by dividing the odds of the exposed cohort/cohort subdivision by the odds of the non-exposed cohort/cohort subdivision. OR is a good approximation of RR when the outcome is rare.
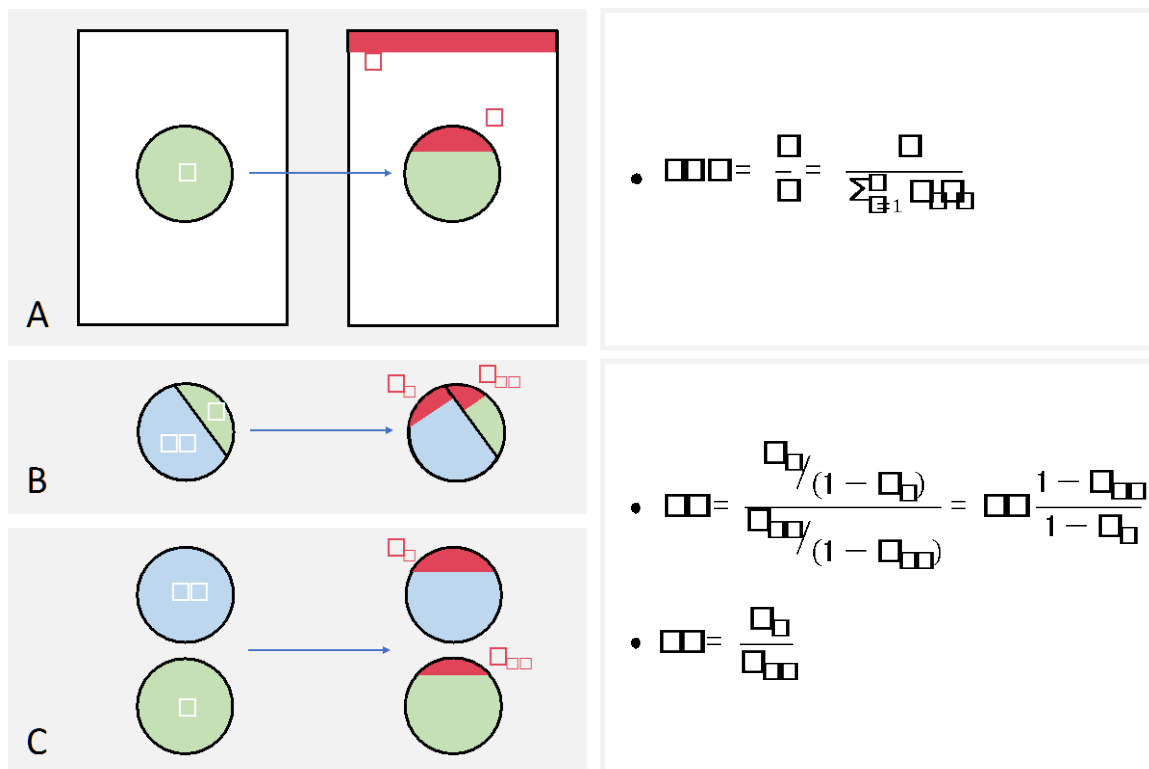
RESULTS

1. Evidence supporting RF comprised in the guide

1.1. Hopelessness

Our research strategy systematically explored RF rather than their protective counterparts, therefore findings related to optimism were captured through its functional cognitive opposite, i.e. hopelessness. According to the convergent findings of three cohort studies, experiencing hopelessness weakly increases the severity of suicidal thoughts in non-clinical young adults, but also in already at-risk populations.[16-19] Note that the weak nature of the link is to be put in perspective with the continuous nature of both variables. This

indicates a dose-effect relationship: for every 1 point increase in hopelessness scale, SI severity increases from 1.16 to 1.43 points. Additionally, the risk of experiencing SI in the future is moderately increased in individuals with feelings of hopelessness (OR = 3.14) in those who have experienced prior SI.[16] Three meta-analyses using a population of psychiatric patients robustly identified an increased risk of dying by suicide after having felt hopeless. While Large et al.[20] found this risk to be moderate in the general category of psychiatric inpatients, Hawton et al. evidenced a strong association, with OR of 9.53 and 21.4 for bipolar and schizophrenia patients, respectively.[21,22] Finally, with respect to non-lethal self-harm, one cohort study conducted by Liu and Mustanki suggests that hopelessness weakly predicts the occurrence of a DSH episode in LGBT populations.[23]

1.2. Substance use

Although remarkably convergent, results regarding substance use significantly differ depending on the nature and modality of consumption and on the population of interest. Comparing large historical cohorts, Singhal et al. found individuals suffering from any substance abuse to be 4.7 times more at risk for suicide than their non-consuming counterparts.[24] Similarly, substance use was found to be a moderate RF for SC in a non-clinical military cohort (HR = 2.76).[25] Also preoccupying is the double diagnosis condition, i.e. when substance use disorder co-occurs with a psychiatric disease. For instance, the literature indicates that misuse of any substance increases the risk of SC by 1.75 to 2.17 times in depressed individuals, independently from their psychopathological characteristics. Equivalent risk estimations are OR = 1.78 in bipolar disorder,[21] OR = 3.21 to 4.20 in schizophrenia,[22,26] and OR = 1.68 in borderline personality disorder.[27] It is noteworthy that substance abuse appears to increase the risk of non-lethal self-harm to a greater extent than it does the risk of SC. While Singhal et al. calculated RRs for SA to vary from 5.5 to 6.2 for DSH in the general population,[24] Rhiihimaki et al. suggested that the risk of SA in depressed patients with a comorbid substance use disorder is multiplied by more than 20.[28]

Among the substances that increase the probability of suicide-related issues, alcohol is a significant RF for both SI (OR = 6.45) and SC (RR = 4.7) in the general population.[29] In clinical individuals, the double diagnosis of alcohol misuse and depression was also associated with a moderate increase in the risk of SC (OR = 2.47).[30] Similarly, Kennedy et al. found incidence of SA to be greater in drug-only consumers than in alcohol and drug co-consumers.[31]

Regarding illicit drugs, the literature is also conclusive. Meta-analyses estimate that drug use weakly to moderately increases the risk of SC, with OR of 2.66, 1.83 and 3.21 in depression, bipolar disorder, and schizophrenia patients, respectively.[21,22,32] More specifically, Van Ours et al. disclosed a dose-effect relationship in the influence of cannabis on SI probability in adolescents, with an OR of up to 20.5 for daily use.[33] With respect to cocaine, recent daily injectors were found to have twice the risk of SA than non-injectors, while two cohort studies converged toward an estimated suicide mortality rate in opioid users of 6 times the same rate in the general population.

It should be noted that evidence concerning tobacco is less clear. In a large populational, historical cohort study, Hemmingson & Kriebel did not find any link between smoking cigarettes and SC.[34] Bohnert et al. also failed to find any difference in cumulative incidence of SC in non-clinical veteran smokers versus non-smokers, but they found a weakly increased risk in clinical and non-clinical ex-soldiers (HR = 1.47 and 1.36, respectively).[35] According to Miller et al.'s results, some discrepancies could be explained by a dose-effect relationship. While authors could not evidence any risk difference between male smokers at 1-14 cigarettes a day and non-smokers, smoking more than 14 cigarettes daily strongly increased the risk of SC in the same population (RR = 4.3).[36]

1.3. Impulsivity

The role of impulsivity as a RF for SB is mainly documented by the quantitative review of Anestis et al., published in 2014.[37] According to the authors, trait impulsivity is significantly associated with both SA and SC (as a pooled outcome) in the general population, but the reported extent of this association depends on the type of study. When restricted to prospective cohort studies, the meta-analysis discloses a Hedges' effect-size of 0.09 (95% CI 0.13-0.72). This is in line with Viktor & Klonsky and Liu & Mustanki's findings according to which impulsivity significantly predicts SA in self-injurers and SI in LGBT populations, respectively.[23,38] Similarly, in Stenbaka & Jokinen's cohort, low emotional control was a RF for non-violent SA in young men, but not for violent SA.[39] Finally, a study by Brent et al. supported a causal relationship by showing, through a path analysis, that impulsive aggression could play a mediating role in the recurrence of prior SA or SB.[40]

1.4. Social support

Protective effects of being surrounded by kin or, conversely, the adverse effect of lacking social support are operationalized in the literature through different concepts. Measures of perceived social support have been negatively related to the risk of SA in both LGBT youth and depressed adolescents.[23,41] In a more categorical approach, Angst et al. found that young women with poor social support were more than 4 times more likely to attempt suicide.[42] In the same way, psychiatric inpatients tend to be more at risk of SC when experiencing social or relationship problems (OR = 1.82).[20]

1.5. Prior suicidal behaviours

Prior suicidal and non-suicidal self-harm is a clearly documented RF for future suicidal occurrences. Presenting with past-history of SB is associated with more severe suicide mortality, regardless of any underlying clinical conditions. Hawton found that suicide rates were 66 times higher than expected in a historical cohort involving more than 11,000 individuals who had experienced self-harm.[30] Suicide mortality was even higher in women with a SMR of 90 (versus 64 in men). However personal history of self-harm may also affect future suicidal morbidity with, for instance, bipolar 1 suicide attempters being 2.26 times more at risk of reattempting than their non-attempter counterparts,[43] or at-risk military personnel with a history of non-suicidal self-injury being 2.25 times more likely to attempt suicide than those without a prior history of non-suicidal self-injury.[44]

It is notable that the risk associated with past SB appears cumulative, as it increases with the number of episodes. Individuals who have experienced any episode of DSH or SA

prior the index event have an increased risk of subsequent SC [1.49 for DSH[45] or 4.02 for SA[46]]. Second, in a cohort of prospectively followed individuals who have self-harmed, multiple occurrences of prior DSH conferred a 1.88 and 3.48 times greater risk of future SC for men and women, respectively (but not in both genders confounded) as compared to a single episode of prior DSH.[47] Using regression analysis to assess the risk of SA repetition in military personnel with no past-history of SA, Bryan et al. found that the past number of non-suicidal self-injury, entered as a continuous variable, was a positive predictor (but this was not true for military personnel with a previous SA). O'Connor et al. attributed a similar predictive value to the number of past SAs in the general population.[48]

In addition to the cumulative amount, the circumstances and characteristics of past SAs have an impact on the subsequent risk of future SB. The method of self-harm is an important factor. In a cohort of suicide attempters, Stenback & Jokinen measured the risk of SC associated with the different methods used for the index SA.[39] HR were as follow: 4.27 for poisoning, 18.28 for hanging, strangulation or suffocation, 5.18 for firearm, 5.74 for cutting or piercing and 8.74 for jumping from a height. A separate study found that the risk of subsequent SC was 2.60 and 1.76 times higher in those who harm themselves by cutting rather than self-poisoning or who are associating both methods.[45]

The risk of SA repetition in individuals who have already self-harmed is also influenced by their intent to die. According to a cohort study conducted by Miranda et al., adolescents who attempted suicide were significantly more at risk of having a subsequent SA when the index episode occurred while the patients were alone (versus while someone was present in the home or in the vicinity, OR = 6.1), was associated to an expressed wish to die (versus no or uncertain wish, OR = 5.2) and when this wish happened more than 1 hour prior the attempt (versus ≤ 1hour or no wish, OR = 5.1).[18]

Finally, the attitude that patients adopt toward their actions after a SA is determinant for subsequent risk of reoccurrence. Individuals who have attempted suicide and express their suicide intent at recovery have an approximately 5 times greater risk of reattempting than those who either deny any intent to die or admit having had thoughts about death that were not of a suicidal nature.[46] Similarly, Bhaskaran et al. showed that patients expressing ambivalent feeling about having survived after a SA were almost 3 times more at risk of experiencing a new SA episode than those who said they were glad to be alive.[49]

1.6. Self-care abilities
Lack of autonomy, or the inability to take care of oneself, has been proposed as a RF for SB. To address this potential RF, we searched the literature using the keywords "autonomy", "independence", and "self-reliance". This strategy did not yield any articles meeting inclusion criteria.

However, the concept of inability to self-care mentioned in the grid may be evaluated by proxy, using clinically-related measures. In particular, the inability to meet one's own needs, avolition, non-compliance with prescribed treatment, loss of energy, insomnia and anorexia all belong to the clinical spectrum of depression. Using this approximation,

studies that link suicide-related outcomes to features of low-mood become of interest to support the related guide criterion.

Most studies that dealt with presence and/or severity of depressed mood as a RF for SC assessed that risk in clinical samples (major depressive disorders, psychiatric inpatients, schizophrenia patients or bipolar patients). According to these studies, the strength with which depressive psychopathology predicts the occurrence of a suicide ranges from 1.03 to 4.77.[20,32,50] More specifically, feelings of worthlessness, inadequacy, guilt or low self-esteem were identified as moderate RF for SC in schizophrenia and psychiatric inpatients,[20,22] while burdensomeness was found to significantly predict later level of SI in depressed individuals.[17] Conversely, the protective value of goal engagement (denoting unaffected volition) and social/occupational functioning regarding DSH and SA was suggested for the general population and schizophrenia patients.[51,52] In schizophrenic patients, Hawton at al. showed that patients who do not take their medication correctly are almost 4 times more at risk of suicide than compliant patients.[22]

2. *Evidence supporting RF not initially included in the guide*

In addition to the RFs that were already identified by the assessment guide, our research resulted in the identification of numerous other conditions conferring increased suicide risk. Table 3 provides an overview of these additional RFs and related findings. Among those additional RFs with particularly robust supporting evidence are:

- **Psychiatric diseases:** evidence is particularly compelling for mood disorders, schizophrenia, anxiety disorders, emotionally labile personality disorders and post-traumatic stress disorders;
- **Physical diseases,** especially when chronic and disabling (e.g. epilepsy, diabetes, amputation, asthma, etc.);
- **Adverse life events or conditions:**
    - Any type of childhood abuse or victimization;
    - Harassment, bullying and cyberbullying, particularly relevant among adolescents;
    - Any type of adult maltreatment or victimization, especially in women;
    - Precarious socio-economic conditions;
- **Belonging to a vulnerable population:**
    - Lesbian, gay, bisexual, and transgender individuals;
    - Medical doctors;
    - Ethnic minorities;
    - Offenders, detainees or ex-detainees;
- **Perinatal circumstances** (low birth weight, small size at birth, low maternal age, etc.)

3. *Evidence supporting emergency factors*

Importantly, the assessment guide distinguishes RF from emergency criteria. Both are measurable characteristics that are statistically associated with future suicide-related outcomes. As such, they are formally equivalent. However, their practical implications make them crucially different in nature. RF refers to the probability that the patient will

experience a suicidal event within a relatively long period going from present to several months or years later. By contrast, emergency criteria refer to a much shorter – almost punctual – time scale, i.e. the probability that the suicidal event will occur in the upcoming days.

The decisions that the Guide aims at supporting relate to the necessity of protecting the patient from imminent self-harm. In this context, clinicians mostly rely on emergency criteria, while RFs marginally interfere (whereas RFs are more suitable for macro-individual public health decisions based on longer timescales). Empirically testing the validity of emergency criteria is problematic due to their critical nature. There are two major obstacles to performing such epidemiological studies. First, as SBs are relatively rare events, a very large cohort with very precise monitoring systems. Second, the study would pose unavoidable ethical problems. For patients at risk of imminent death by suicide, prevention invariably prevails on research in such critical context.

These epistemological considerations may explain why we identified very little scientific support for emergency criteria. Some evidence about suicidal intentionality or lethality (presented Section 1.5) could provide indirect support for the inclusion of these criteria. Nevertheless, in line with evidence-based practice, and because of the practical implications discussed above, evaluation of emergency criteria must continue to rely on clinical wisdom.

Table 3. Summary analysis of included studies

Study characteristics		Outcome			Evidenced RF	
Reference	Focus and design	Type	Definition	Source	RF and/or population concerned	Related findings
Mental illness						

Rahman et al., 2016[53] **Sweden**	Prospective cohort study (A:WC)
	- **Focus:** disability pension due to common mental disorders and subsequent SB
	- **Inclusion period:** 2005
	- **Cohort:** individuals aged 19-64 yo who were on full- or part-time disability pension due to common mental disorder (ICD-10) (N = 46 515)
	  ■ Male: 33.6%
	  ■ Mean age = N/A
	- **Follow-up:** 5 years
		SC
		
		SA
			Determined and undetermined suicides
			
			Determined and undetermined SA
				Swedish Cause of Death Register
				
				Swedish Inpatient Care Register
					Population: Patients on disability pension for common mental disorder	<u>Independent RF for SC in patients on disability pension for common mental disorder (EA):</u>
						- **Stratified by sex (male / female):**
						  ■ Main disability pension diagnosis (vs. depressive disorder): NS / NS
						  ■ Secondary disability pension diagnosis (vs. no secondary disability pension diagnosis):
						    • Substance abuse disorder: NS / HR = 3.3, 95% CI 1.5-7.1
						- **Stratified by age (18-44 yo / 45-64 yo):** NS
						<u>Independent RF for SA in male / female patients on disability pension for common mental disorder (EA):</u>
						- **Stratified by sex (male / female)**
						  ■ Main disability pension diagnosis (vs. depression): NS / NS
						  ■ Secondary disability pension diagnosis (vs. no secondary disability pension diagnosis):
						    • Substance use disorder: NS / HR = 2.1, 95% CI 1.5-2.9
						    • Personality disorder: NS / HR = 1.4, 95% CI 1.1-1.8
						    • Other mental disorder: NS / HR = 1.3, 95% CI 1.1-1.5
						  ■ Full time (vs. part-time) disability pension: NS / 1.7, 95% CI 1.4-2.2
						- **Stratified by age (18-44 yo / 45-64 yo):**
						  ■ Main disability pension diagnosis (vs. no main disability pension diagnosis): NS / NS
						  ■ Secondary disability pension diagnosis (vs. no secondary disability pension diagnosis):
						    • Substance use disorder: HR = 2.3, 95% CI 1.6-3.3 / HR = 1.5, 95% CI 1.1-2.2
						    • Personality disorder: HR = 1.5, 95% CI 1.1-2.0 / HR = 1.6, 95% CI 1.1-2.2
						    • Other mental disorder: HR = 1.5, 95% CI 1.2-1.9 / NS
						  ■ Full time (vs. part-time) disability pension: HR = 1.4, 95% CI 1.1-1.9 / HR = 1.5, 95% CI 1.1-1.9
						<u>Independent PF for SC in patients on disability pension for common mental disorder (EA):</u>
						- **Stratified by sex (male / female):** NS
						- **Stratified by age (18-44 yo / 45-64 yo):**
						  ■ Main disability pension diagnosis (vs. depression):
						  ■ Stress-related mental disorder: NS / HR = 0.4, 95% CI 0.2-0.8

Fazel et al., 2015[54]
UK
	Historical cohort study (A:E-NE)
	- **Focus:** risks of violent crime in patients with depression
	- **Inclusion period:** 2001
	- **Cohort:** individuals born between 1958 and 1994 (N = 945 612)
	  ■ Male: 36.6%
	  ■ Mean age: N/A
	- **Compared groups:**
	  ■ Patients with at least 2 outpatient episodes of depressive disorder (ICD-10) (N = 47 158)
	  ■ Age and sex-matched randomly selected controls from the general population (N = 898 454)
	- **Follow-up:** until 2009 (mean = 3.2 years, SD N/A)
		SC
		
		DSH
			SC and undetermined death (ICD)
			
			Certain and uncertain DSH (ICD)
				Swedish Cause of Death Register
				
				Swedish National Patient Register
					Depression
					In the general population
						Depression (yes vs. no) as an independent RF for DSH in the general population (CA): OR = 5.7, 95% CI 5.4-6.0
						Depression (yes vs. no) as an independent RF for SC in the general population (CA): OR = 6.7, 95% CI 5.5-8.1

Gradus et al., 2015[55]
USA
	Prospective cohort study (A: E-NE)
	- **Focus:** trauma, comorbidity and mortality following diagnoses of severe stress and adjustment disorders
	- **Inclusion period:** 1995
	- **Cohort:** >15 yo individuals (N = 609 978)
	- **Compared groups:**
	  ■ Patients with a diagnosis of reaction to severe stress or adjustment disorder at an inpatient or outpatient psychiatric clinic (ICD-10) (N = 101 663)
	    • Male: 40.0%
	    • Mean age = N/A
	  ■ Control individuals randomly selected from the Danish Civil Registration System and matched by age and sex (N = 508 315)
	    • Male: 39.9%
	    • Mean age = N/A
	- **Mean follow-up:** until 2011
		SC	SC and SA followed by death within 7 days (ICD-10)	Danish Register of Causes of Death	Reaction to severe stress or adjustment disorder	Reactions to severe stress or adjustment disorder (vs. no severe stress or adjustment disorder) as independent RF for SC:
						- Acute stress reaction: HR = 24.0, 95% CI 10-53
						- Post-traumatic stress disorder: HR = 13.0, 95% CI 4.3-42
						- Adjustment disorder: HR = 12.0, 95% CI 9.8-15.0
						- Other reaction to severe stress: HR = 29.0, 95% CI 3.5-244.0
						- Unspecified reaction to severe stress: HR = 19.0, 95% CI 12-31

Singhal et al., 2014[24] **UK**	Historical cohort study (A:E-NE) - **Focus:** risk of DSH and SC in people with specific psychiatric and physical disorders - **Inclusion period:** from 1999 - **Cohorts:** patients who had or had not been seen as a day case or admitted as an inpatient with a physical or psychiatric diagnosis (ICD)	DSH	N/A	UK Office for National Statistics	Psychiatric conditions **In** the general population	Psychiatric conditions as independent RF for overall / within the first year following discharge / after the first year following discharge DSH in the general population (pseudo-EA): - Depression (yes vs. no): RR = 14.1, 95% CI 14.0-14.3 / RR = 23.1, 95% CI 22.6-23.7 / RR = 11.7, 95% CI 11.5-11.9 - Bipolar disorder (yes vs. no): RR = 11.6, 95% CI 11.3-11.9 / RR = 18.0, 95% CI 17.2-18.8) / RR = 9.7, 95% CI 9.3-10.0 - Alcohol abuse (yes vs. no): RR = 8.0, 95% CI 7.9-8.1, RR = 12.8, 95% CI 12.5-13.1 /

	▪ Mean age: N/A
	- Compared groups
	  ▪ Patients with a physical or psychiatric diagnosis
	    • Depression (N = 721 138, male: 37.0%)
	    • Bipolar disorder (N = 74 842, male: 40.0%)
	    • Alcohol abuse (N = 663 702, male: 72.0%)
	    • Anxiety and neurotic disorders (N = 428 151, male: 37.0%)
	    • Eating disorders (N = 18 917, male: 13.0%)
	    • Schizophrenia (N = 218 536, male: 56.0%)
	    • Substance abuse (N = 383 063, male: 65.0%)
	    • Epilepsy (N = 509 117, male: 51.0%)
	    • Asthma (N = 2 500, male: 43.0%)
	    • Migraine (N = 147 330, male: 28.0%)
	    • Psoriasis (N = 119 304, male: 52.0%)
	    • Diabetes mellitus (N = 2 230 207, male: 53.0%)
	    • Eczema (N = 267 788, male: 48.0%)
	    • Inflammatory polyarthropathies (N = 970 569: male: 33.0%)
	    • Sickle cell anaemia (N = 15 847, male: 52.0%)
	    • Cancers (N = 3 202 099, male: 51.0%)
	    • Congenital heart disease (N = 70 390, male: 50.0%)
	    • Ulcerative colitis (N =19 1018, male: 51.0%)
	  ▪ Patients with a wide range of other, mainly minor, surgical and medical conditions and injuries (N = N/A)
	- Mean follow-up: until 2001
						RR = 6.7, 95% CI 6.6-6.8
						- Anxiety and neurotic disorders (yes vs. no): RR = 7.8, 95% CI 7.7-8.0 / 13.6, 95% CI 13.3-14.0 / RR = 6.0, 95% CI 5.9-6.1
						- Eating disorders (yes vs. no): RR = 7.5, 95% CI 7.2-7.9 / RR = 13.3, 95% CI 12.4-14.3 / RR = 5.7, 95% CI 5.4-6.1
						- Schizophrenia (yes vs. no): RR = 7.2, 95% CI 7.1-7.4 / RR = 11.4, 95% CI 11.0-11.8 / 6.2, 95% CI 6.0-6.3
						- Substance abuse (yes vs. no): RR = 6.2, 95% CI 6.0-6.3 / RR = 8.6, 95% CI 8.4-8.9 / RR = 5.4, 95% CI 5.3-5.5
						<u>Psychiatric conditions as independent RF for SC in the general population (pseudo-EA):</u>
						- Bipolar disorder: RR = 17.9, 95% CI 16.0-20.0
						- Depression: RR = 12.9, 95% 12.2-13.7
						- Schizophrenia: RR = 10.6, 95% 9.8-11.4
						- Anxiety and neurotic disorders: RR = 8.8, 95% 8.2-9.6
						- Eating disorders: RR = 8.4, 95% 5.0-13.4
						- Alcohol abuse: RR = 4.7, 95% 4.4-5.0
						- Substance abuse: RR = 4.7, 95% 4.3-5.2

		SC	ICD-9 and 10	UK Office for National Statistics	Physical conditions **In** the general population	<u>Physical conditions as independent RF for overall / within the first year following discharge / after the first year following discharge DSH in the general population (pseudo-EA):</u> **-** Epilepsy (yes vs. no): RR = 2.9, 95% CI 2.8-2.9 / RR = 3.9, 95% CI 3.8-4.1 / RR = 2.6, 95% CI 2.5-2.7 **-** Asthma (yes vs. no): RR = 1.8, 95% CI 1.8-1.9 / RR = 2.0, 95% CI 1.9-2.0 / RR = 1.8, 95% CI 1.8-1.8 **-** Migraine (yes vs. no): RR = 1.8, 95% CI 1.7-1.8 / RR = 2.0, 95% CI 1.9-2.2 / RR = 1.7, 95% CI 1.6-1.7 **-** Psoriasis (yes vs. no): RR = 1.6, 95% CI 1.5-1.7 / RR = 1.7, 95% CI 1.5-1.9 / RR = 1.6, 95% CI 1.5-1.7 **-** Diabetes mellitus (yes vs. no): RR = 1.6, 95% CI 1.5-1.6 / RR = 1.6, 95% CI 1.6-1.7 / RR = 1.5, 95% CI 1.5-1.6 **-** Eczema (yes vs. no): RR = 1.4, 95% CI 1.3-1.5 / RR = 1.7, 95% CI 1.5-1.8 / RR = 1.3, 95% CI 1.3-1.4 **-** Inflammatory polyarthropathies (yes vs. no): RR = 1.4, 95% CI 1.3-1.4 / RR = 1.5, 95% CI 1.4-1.6 / RR = 1.4, 95% CI 1.3-1.4 <u>Physical conditions as independent PF for DSH in the general population (pseudo-EA):</u> **-** Congenital heart disease (yes vs. no): RR = 0.9, 95% CI 0.8-0.9 / RR = 0.7, 95% 0.6-0.9 / NS **-** Ulcerative colitis (yes vs. no): RR = 0.8, 95% 0.7-0.8 / RR = 0.7, 95% 0.6-0.8 / RR = 0.8, 95% 0.7-0.8 **-** Sickle cell anaemia (yes vs. no): RR = 0.7, 95% 0.6-0.8 / RR = 0.8, 95% 0.5-1.2 / RR = 0.7, 95% 0.5-0.8 <u>Physical conditions as independent RF for SC in the general population (pseudo-EA):</u> **-** Epilepsy: RR = 1.8, 95% 1.6-2.1

					- Eczema: RR = 1.4, 95% 1.1-1.8 - Asthma: RR = 1.2, 95% 1.1-1.3 - Cancers: RR = 1.2, 95% 1.1-1.2

Webb et al., 2014[56]
UK
	Historical cohort study (A:E-NE + WC)
	- **Focus:** SC, hospital-presenting SA, and criminality in bipolar disorder
	- **Inclusion period:** from 1973
	- **Cohort:** ≥15 yo individuals (N = 336 754)
	  ▪ Male: N/A
	  ▪ Mean age = N/A
	- **Compared groups:**
	  ▪ Patients with 2 or more outpatient or inpatient episodes with a bipolar disorder diagnosis (ICD-8 to 10) (N = 15 337)
	  ▪ Age- and gender-matched full siblings of the bipolar disorder cohort who were unaffected by the disorder (N = 14 677)
	  ▪ Age- and gender-matched controls (N = 306 740)
	- **Follow-up:** until 2009
		SC	Suicide and deaths of undetermined cause (ICD-8 to 10)	UK Cause of Death Register	Bipolar disorder **In** the general population	Bipolar disorder (yes vs. no) as an independent RF for SC in the general population (CA): RR = 14.59, 95% CI 12.12-17.56
						Bipolar disorder (yes vs. no) as an independent RF for SA in the general population (CA): RR = 8.74, 95% CI 8.16-9.36

		SA	Hospital presenting SA	UK Patient Register	**Population** Bipolar disorder patients	Independent RF for SC in bipolar patients (EA):
						- Male gender (vs. female gender): HR = 1.70, 95% CI 1.34-2.17
						- PH of non-violent crime (vs. no PH of crime): HR = 1.53, 95% CI 1.18-1.99
						- First 2 bipolar disorder treatment episodes (inpatient vs. outpatient): HR = 2.46, 95% CI 1.84-3.27
						- PH of SA (yes vs. no): HR = 2.66, 95% CI 2.06-3.45
						- PH of alcohol/drug disorder diagnosis (yes vs. no): HR = 2.21, 95% CI 1.61-3.05
						Independent RF for SA in bipolar patients (EA):
						- PH of crime (vs. no PH of crime):
						  ▪ PH of non-violent crime: HR = 1.55, 95% CI 1.34-1.80
						  ▪ PH of violent crime: HR = 1.55, 95% CI 1.34-1.80
						- First 2 bipolar disorder treatment episodes (inpatient vs. outpatient): HR =1.39, 95% CI 1.25-1.53
						- PH of SA (yes vs. no): HR = 3.92, 95% CI 3.57-4.31
						- PH of alcohol/drug disorder diagnosis (yes vs. no): HR = 3.19, 95% CI 2.86-3.55
						- Family history of SC (yes vs. no): HR = 1.35, 95% CI 1.08-1.69
						- Family history of alcohol/drug disorder diagnosis (yes vs. no): HR = 1.41, 95% CI 1.16-1.73
						- Family history of violent crime (vs. no family history of crime): HR = 1.27, 95% CI 1.01-1.59
						Independent PF for SC in bipolar patients (EA):
						- Being unmarried (yes vs. no): HR = 0.55, 95% CI 0.43-0.70
						Independent PF for SA in bipolar patients (EA):
						Male gender (vs. female gender): HR = 0.64, 95% CI 0.58-0.70

					Being an unaffected sibling of a bipolar patient **In** the general population	Being an unaffected sibling of a bipolar patient (yes vs. no) as an independent RF for SC in the general population (CA): RR = 1.24, 95% CI 1.18-1.30 Being an unaffected sibling of a bipolar patient (yes vs. no) as an independent RF for SA in the general population (CA): RR = 2.51, 95% CI 1.88-3.34

Haddock et al., 2013[57] UK	Prospective cohort study (A:WC)
	- **Focus:** psychotic symptoms, self-harm and violence in individuals with schizophrenia and substance misuse problems
	- **Inclusion period:** 2004-2007
	- **Cohort:** >16 yo patients with a diagnosis of non-affective psychotic disorder (ICD-10 and/or DSM-IV) and a diagnosis of drug and/or alcohol dependence or abuse (DSM-IV) or exceeded minimum levels of drug and/or alcohol use on at least 6 of the 12 weeks preceding baseline assessment (N = 327)
	    ▪ Male: 37.9 (SD 9.7)
	    ▪ Mean age = 86.5%
	- **Mean follow-up:** 24 months
		DSH	Violence to self, including suicide incidents	Psychiatric case notes	**Population:** Schizophrenia patients with substance misuse problems	Independent predictors for DSH in schizophrenia patients with substance misuse problems (EA):
						- Severity of delusions (cont.): E = 0.442, StdE N/A, p<.05
						- Severity of hallucinations (cont.): E = 0.361, StdE N/A, p<.01
						- Distress regarding delusion (cont.): E = 0.139, StdE N/A, p = 0.024

Yaseen et al., 2013[58] USA	Prospective cohort study ()
	- **Focus:** relationship between panic attacks, panic symptoms and suicidality in individuals with past-year major depressive episodes
	- **Inclusion period:** 2001-2002
	- **Cohort:** adults with or without past-year diagnosis of depressive episode (DSM-IV) (N = 2 864)
	    ▪ Male: 33.3%
	    ▪ Mean age = N/A
	- **Compared groups:**
	    ▪ Panic attack comorbidity (N = 533)
	      • Male: 27.7%
	      • Mean age = N/A
	    ▪ No panic attack comorbidity (N = 2 304)
	      • Male: 34.5%
	      • Mean age = N/A
	- **Mean follow-up:** 3 years
		SA	Assessment of whether participants had attempted suicide since the baseline interview (no precision)	Monitoring	**Population:** Depressed adults	Independent RF for new onset or recurrent SI (vs. no SI or SA) / SA (vs. no SI or SA) / SA (vs. no SA) in depressed adults (EA):
						- Manic episode (yes vs. no): NS / OR = 2.34, 95% CI 1.30-4.21 / OR = 1.99, 95% CI 1.06-3.73
						- Generalized anxiety disorder (yes vs. no): OR = 1.44, 95% CI 1.06-1.96 / OR = 1.86, 95% CI 1.06-3.27 / OR = 2.19, 95% CI 1.18-4.05
						- Lifetime personality disorder (yes vs. no): OR = 2.26, 05% CI 1.78-2.86 / OR = 6.51, 95% CI 3.38-12.53 / OR = 6.31, 95% CI 2.78-14.29
						- Alcohol disorder (yes vs. no): NS / OR = 1.81, 95% CI 1.03-3.18 / NS
						- Female gender (vs. male gender): OR = 1.49, 95% CI 1.15-1.93 / NS / NS
						Independent PF for new onset or recurrent SI (vs. no SI or SA) / SA (vs. no SI or SA) / SA (vs. no SA) in depressed adults (EA):
						- Age > 60 yo (vs. 18-29 yo): NS / OR = 0.12, 95% CI 0.02-0.71 / OR = 0.10, 95% CI 0.01-0.85
						- ≥16 years of education (vs. 0-11 years): OR = 0.63, 95% CI 0.41-0.97 / NS / NS

		SI	Assessment of whether participants had felt like they wanted to die, thought a lot about their own deaths, or thought about committing suicide during a depressive episode	Monitoring	Panic attack symptoms **In** depressed adults	Fear of dying as an independent RF for SI (vs. no SI or SA) / SA (vs. no SI or SA) in depressed adults (CA): NS / 7.00, 95% CI 1.53-32.04

Conner et al., 2012[59] USA	Prospective cohort study (A:WC)
	- **Focus:** mood-, anxiety-, and substance use disorders and risk of SC in military personnel
	- **Inclusion period:** 2003
	- **Cohort:** US Air Force personnel (N = 309 861)
	  ▪ Male: 70.8%
	  ▪ Mean age = 30.5 (SD 7.7)
	- **Mean follow-up:** until 2009
		SC	N/A	Program Manager of the USAF Suicide Prevention Program	Mental disorders **In** military personnel	Mental disorders as independent RF for SC in military personnel (CA):
						- Mood disorder:
						  ▪ Mood disorder (vs. no mood disorder):
						    • Within the year after treatment presentation: HR = 7.2, 95% CI 4.83-10.90
						    • Within the second year after treatment presentation and after: HR = 2.53, 95% CI 1.43-4.47
						    • Overall risk: HR = 4.85, 95% CI 3.43-6.85
						  ▪ Mood disorder (vs. anxiety disorder): HR = 4.85, 95% CI 3.43-6.85
						- Anxiety disorder (yes vs. no):
						  ▪ Within the year after treatment presentation: HR = 3.32, 95% CI 2.06-5.37
						  ▪ Within the second year after treatment presentation and after: NS
						Overall risk: HR = 2.48, 95% CI 1.70-3.62

					Substance use disorder **In** military personnel	Substance use disorder (yes vs. no) as an independent RF for SC in military personnel (CA): HR = 2.76, 95% CI 1.73-4.40

Dugas et al., 2012[60] Canada	Prospective cohort study (A:WC)
	- **Focus:** early predictors of SI in young adults
	- **Inclusion period:** 1999
	- **Cohort:** students aged 12-13 yo from grade 7 classes (N = 877)
	  ▪ Male: 46.0%
	  ▪ Mean age = 12.7 (SD 0.5)
	- **Follow-up:** until 2007-2008
		SI	"In the past 12 months, how often did you feel suicidal?"	Monitoring	Depression symptoms **In** young adolescents	Depression symptoms (cont.) as independent RF for SI in young adolescents (EA):
						- At grade 9: OR = 2.2, 95% CI 1.5-3.2
						- At grade 10: OR = 1.6, 95% CI 1.03-2.5
						- At grade 11: OR = 1.9, 95% CI 1.1-3.4

Erlangsen et al., 2012[26] Denmark	Prospective cohort study (A: E-NE + WC)
	- **Focus:** schizophrenia as a predictor of SC during the second half of life
	- **Inclusion period:** 1990
	- **Cohort:** all individuals aged ≥50 yo living in Denmark (N = 2 899 411)
	  ▪ Male: 47.7%
	  ▪ Mean age: N/A
	- **Compared groups:**
	  ▪ Patients with inpatient diagnosis of schizophrenia (ICD-8 or 10) (N = 18 058)
	    • Male: 49.2%
		SC	ICD-8 and 10	Danish Cause of Death Register	Schizophrenia **In** older adults	Schizophrenia (yes vs. no) as an independent RF for SC in older adults (CA):
						- Men: RR = 3.5, 95% CI 3.0-4.2
						- Women: RR = 7.6, 95% CI 6.6-9.5

					Schizophrenia and care characteristics **In** older adults	Schizophrenia and care characteristics as cumulative independent RF for SC in older male / female adults (EA):
						- Age at first record of schizophrenia (vs. no schizophrenia)
						  ▪ <40 yo: RR = 3.0, 95% CI 2.3-3.9 / RR = 6.5, 95% CI 4.6-9.2
						  ▪ 40-59 yo: RR = 4.5, 95% CI 3.5-5.9 / RR = 9.2, 95% CI 7.3-11.7
						  ▪ ≥60 yo: RR = 2.6, 95% CI [1.3-5.3 / RR = 6.4, 95% CI 4.0-10.4
						- Psychiatric hospitalization (vs. no schizophrenia and no other disorder):
						  ▪ Currently hospitalized: RR = 8.6, 95% CI 5.4-13.7 / RR = 28.6, 95% CI 17.9 – 45.7

	・ Mean age: N/A ▪ Non-schizophrenia patients (N = 2 881 353) 　・ Male: 47.7% 　・ Mean age: N/A **- Follow-up:** until 2006					▪ Previously hospitalized: RR = 5.3, 95% CI 4.4-6.5 / RR = 15.4, 95% CI 12.6-18.9 - Number of psychiatric admissions (vs. no schizophrenia, 0 admission): 　▪ 1: RR = 2.9, 95% CI 1.6-5.1 / RR = 4.4, 95% CI 2.0-9.8 　▪ 2-3: RR = 4.1, 95% CI 2.7-6.3 / RR = 9.7, 95% CI 5.9-15.9 　▪ 4-6: RR = 5.9, 95% CI 3.9-8.8 / RR = 17.1, 95% CI 11.5-25.4 　▪ ≥7: RR = 7.7, 95% CI 6.0-9.8 / RR = 26.1, 95% CI 20.6-33.1 - Time since admission or discharge (vs. no schizophrenia, no other disorder): 　▪ Admitted <3months: RR = 21.9, 95% CI 13.2-36.5 / RR = 30.1, 95% CI 15.0-60.5 　▪ Admitted ≥3 months: NS / RR = 27.8, 95% CI 14.9-51.9 　▪ Discharged <3 months: RR = 24.0, 95% CI 16.4-35.1 / RR = 78.3, 95% CI 55.2-111.1 　▪ Discharged ≥3 months: RR = 4.2, 95% CI 3.4-5.3 / RR = 11.3, 95% CI 8.9- 14.4
			Schizophrenia and comorbidities **In** older adults			<u>Schizophrenia and comorbidities (vs. no schizophrenia, no comorbidity) as cumulative independent RF for SC in older male / female adults (EA):</u> - Mood disorder: RR = 5.9, 95% CI 4.4-8.0 / RR = 11.1, 95% CI 8.4-14.6 - Substance abuse RR = 4.2, 95% CI 3.0-5.7 / RR = 14.3, 95% CI 10.2-20.0 - Personality disorder: RR = 5.3, 95% CI 3.8-7.2 / RR = 11.1, 95% CI 8.3-14.8 - Dementia: RR = 3.3, 95% CI 1.8-6.0 / RR = 8.8, 95% CI 4.9-15.9 - PH of SA: RR = 21.9, 95% CI 15.4-31.0 / RR = 58.7, 95% CI 42.7-80.6 - PH of SA within the past 365 days: RR = 54.1, 95% CI 30.4-96.1 / RR = 176.4, 95% CI 113.8-273.5
			PH of SA **In** older adults			<u>PH of SA as an independent RF for SC in male / female older adults (EA):</u> - Lifetime_history: RR = 17.2, 95% CI 15.6-19.0 / RR = 38.1, 95% CI 34.6-41.9 - Within the past 365 days: RR = 58.2, 95% CI 51.-66.0 / RR = 101.9, 95% CI 90.5-114.8
Tuisku et al., 2012[61] **Finland**	<u>Prospective cohort study (A:WC)</u> **- Focus:** DSH and other suicidality among depressed adolescent outpatients **- Inclusion period:** 1998-2001 **- Cohort:** 13-19 yo adolescent outpatients with a current diagnosis of depressive mood disorder (DSM-IV) (N = 189) 　▪ Male: N/A 　▪ Mean age = N/A	SB	Encompass SA, SI and DSH (Schedule for Affective Disorders and Schizophrenia for School-Aged	Monitoring	**Population:** Adolescents with depressive disorder	<u>Independent RF for SB in depressive disorder adolescents (EA):</u> - Comorbid axis I disorder (yes vs. no): OR = 3.20, 95% CI 1.20-8.70 - Alcohol use (cont.): OR = 1.07, 95% CI 1.01-1.13 - Suicidality at baseline (yes vs. no): OR = 6.44, 95% CI 2.52-16.46 - Mood disorder during follow-up (yes vs. no): OR = 5.04, 95% CI 2.00-12.70 <u>Independent RF for DSH (vs. no suicidality) in depressive disorder adolescents (EA):</u> - Alcohol use (cont.): OR = 1.08, 95% CI 1.01-1.15 - Suicidality at baseline (yes vs. no): OR = 5.56, 95% CI 1.80-17.23

	- **Sub-groups:** depressive adolescents with PH of SB at baseline (N = 105)
	  ▪ Male: N/A
	  ▪ Mean age: N/A
	- **Median follow-up:** 59.5 weeks (IQR 57.0-63.0)
			Children-Present and Lifetime)			- Mood disorder during follow-up (yes vs. no): OR = 6.78, 95% CI 2.13-21.58

		DSH	Schedule for Affective Disorders and Schizophrenia for School-Aged Children-Present and Lifetime	Monitoring	**Population:** Adolescents with depressive disorder and PH of SB	Independent RF for continuing SB in depressive disorder adolescents with PH of SB (EA): - Female gender (vs. male gender): OR = 6.39, 95% CI 1.26-32.34 - Comorbid axis I disorder (yes vs. no): OR = 3.78, 95% CI 1.22-11.63 - Mood disorder during follow-up (yes vs. no): OR = 5.47, 95% CI 1.81-16.5
Huas et al., 2013[62] **France**	Prospective cohort study (D+A:WC) - **Focus:** mortality and its predictors in severe bulimia nervosa female patients - **Inclusion period:** 1988-2004 - **Cohort:** female patients hospitalized for the first time for a diagnosis of bulimia nervosa (DSM-IV) (N = 2380.5 PY) ▪ Mean age: 26.4 (SD 6.2) - **Mean follow-up:** 10.5 years (SD 4.3)	SC	N/A	French Epidemiological Center for Medical Causes of Death	Severe bulimia nervosa **In** women	SC mortality in female bulimia nervosa patients (CA): SMR = 30.9, 95% CI 5.7-68.7
					PH of SA **In** female severe bulimia nervosa patients	Independent RF of SC in female bulimia nervosa patients (EA): - PH of SA (yes vs. no): HR = 1.29, 95% CI 1.03-1.62

Harris et al., 1994[63]
USA
	Meta-analysis (D/SumD)
	- **Focus:** SC in medical disorders
	- **Restricted to:** cohort studies with minimum follow-up of 2 years (N = 235 reports)
	- **Population:** patients with diagnosis of medical disorder (ICD-9)
		SC	N/A	Depending on studies	Medical disorders	SC mortality in medical disorders:
						- HIV/AIDS: SMR = 665, 95% CI 577-763
						- Huntington's disease: SMR = 290, 95% CI 225-368
						- Malignant neoplasm
						  ▪ all sites: SMR = 180, 95% CI 171-189
						  ▪ head and neck: SMR = 1 139, 95% CI 521-2 163
						- Multiple sclerosis: SMR = 236, 95% CI 189-291
						- Peptic ulcer: SMR = 210, 95% CI 184-238
						- Renal disease
						  ▪ Hemodialysis: SMR = 1 449, 95% CI 885-2 238
						  ▪ Renal transplantation: SMR = 383, 95% CI 191-686
						- Spinal cord injuries: SMR = 386, 95% CI 329-442
						- Systemic lupus erythematosus: SMR = 435, 95% CI 258-687

Physical conditions						
Turner et al., 2015[64] **USA**	Prospective cohort study (A:WC) - **Focus:** SI in patients amputated from lower extremity - **Inclusion period:** 2005-2008	SI	Patient Health Questionnaire-9	Monitoring	**Population:** Patients with a lower-extremity	Independent RF for SI in lower extremity amputation patients (EA): - Depressive symptoms: OR = 1.43, 95% CI 1.16-1.77

	- **Cohort:** adult patients undergoing their first major lower-extremity amputation due to diabetes mellitus or peripheral arterial disease (N = 70)
	  ▪ Mean age: 61.6 (SD 8.8)
	  ▪ Male: 92.9%
	- **Follow-up:** 12 months
					amputation	

Magnusso n et al., 2006[65]
Sweden
	Historical cohort study (A:WC)
	- **Focus:** association between weight and SC in young men
	- **Inclusion period:** 1968-1999
	- **Cohort:** 18-19 yo male conscripts entered in the Swedish Military Service Conscription Register (N = 1 299 177)
	  ▪ Mean age: N/A
	- **Follow-up:** 15 years
		SC	ICD-8 to 10	Swedish Cause of Death Register	Lower weight
					In young men
						Lower weight as a RF for SC in young males (CA):
						- **Weight processed as a discretized variable:**
						  ▪ BMI<18.5 (vs. 18.5-24.9): HR = 1.14, 95% CI 1.04-1.31
						- **Weight processed as a continuous variable:**
						  ▪ Change in HR per 5 kg/m^2 increase in BMI = 0.85, 95% CI 0.79-0.91

Magnusso n et al., 2005[66]
Sweden
	Historical cohort study (A:WC)
	- **Focus:** association between height and SC in young men
	- **Inclusion period:** 1968-1999
	- **Cohort:** 18-19 yo male conscripts entered in the Swedish Military Service Conscription Register (N = 1 299 177)
	  ▪ Mean age: N/A
	- **Follow-up:** 15 years
		SC	ICD-8 to 10	Swedish Cause of Death Register	Shorter height
					In young men
						Shorter height as a RF for SC in young males (CA):
						- **Height processed as a discretized variable:**
						  ▪ –2 SD (vs. –0.5-0.5 SD): HR = 1.25, 95% CI 1.27-1.86
						  ▪ –1.5 to <–1.0 SD (vs. –0.5-0.5 SD): HR = 1.19, 95% CI 1.04-1.34
						  ▪ –1.0 to <–0.5 SD (vs. –0.5-0.5 SD): HR = 1.11, 95% CI 1.01-1.22
						- **Height processed as a continuous variable:**
						  ▪ Change in HR per 5 cm increase in height = 0.91, 95% CI 0.88-0.93

Sociodemographic factors						

Tsai et al., 2015[67]
USA
	Prospective cohort study (A:E-NE)
	- **Focus:** social integration as a predictor for SC in American women
	- **Inclusion period:** 1992
	- **Population**: female nurses aged 46-71 (N = 72 607, 1.2x10^6 PY)
	- **Compared groups:**
	  ▪ Social integration category I (lowest) (N = 5 547, mean age =
		SC	Death from suicide or self-inflicted injury (ICD-9)	Consultation of next of kin and US National Death Index
				
				SC ascertained from death certificates and hospital or
					Social integration
					In 46-71 yo women (nurses)
						Social integration as an independent PF for SC in women (CA):
						- Social integration category II (vs. category I): HR = 0.53, 95% CI 0.23-1.16
						- Social integration category III (vs. category I): HR = 0.26, 95% CI 0.09-0.74
						- Social integration category IV (vs. category I): HR = 0.23, 95% CI 0.09-0.59
						  Comparison of cumulative incidence functions: p<.001
						Change in social integration as an independent PF for SC in women (CA):
						- Remaining in category II or III (vs. remaining in category I): HR = 0.24,

	57.9 [SD 7.1]) ▪ Social integration category II (N = 20 959, mean age = 58.5 [SD 7.3]) ▪ Social integration category III (N = 15 030, mean age = 57.8 [SD 7.1]) ▪ Social integration category IV (highest) (N = 31 071, mean age = 58.6 [SD 7.1]) - **Follow-up:** 18 years		pathology reports		95% CI 0.06-0.97 - Remaining in category IV (vs. remaining in category I): HR = 0.15, 95% CI 0.04-0.65
King et al., 2008[68] **UK**	Meta-analysis (A:RFF/SumD) - **Focus:** risk of mental disorder, substance misuse, SC, SI, SA and DSH in Lesbian Gay and Bisexual people - **Include:** cohort, case-control and cross-sectional comparative studies (N = 28 reports, 25 studies) - **Population:** ≥12 yo individuals ▪ Heterosexual (N = 214 344) • Male: N/A • Mean age: N/A ▪ Non-heterosexual (N = 11 971) • Male: N/A • Mean age: N/A	SA DSH SI	N/A Intentional self-poisoning or injury irrespective of the apparent purpose of the act Thoughts of taking one's life without acting on them	Depending on studies Depending on studies Depending on studies	Being Lesbian, Gay or Bisexual **In** the general population	<u>Being Lesbian Gay or Bisexual (vs. heterosexual) as an independent risk for SA in the general population:</u> - **Lifetime risk** ▪ Both genders: RR = 2.46, 95% CI 1.87-3.28 ▪ Female: RR = 1.82, 95% CI 1.59-2.09 ▪ Male: RR = 4.28, 95% CI 2.32-7.88 - **12-month risk** ▪ Both genders: RR = 2.56, 95% CI 2.26-2.91 ▪ Female: RR = 2.52, 95% CI 1.64-3.87 ▪ Male: RR = 4.45, 95% CI 1.86-3.24 <u>Being Lesbian Gay Bisexual (vs. heterosexual) as an independent risk for lifetime DSH in the general population:</u> - Both genders: RR = 2.29, 95% CI 0.71-7.35 - Female: RR = 1.34, 95% CI 1.01-1.78 - Male: RR = 2.30, 95% CI 0.76-6.95 <u>Being Lesbian Gay Bisexual (vs. heterosexual) as an independent risk SI in the general population:</u> - **Lifetime risk:** ▪ Both genders: RR = 2.04, 95% CI 1.57-2.66 ▪ Female: RR = 1.55, 95% CI 1.24-1.94 ▪ Male: RR = 2.01, 95% CI 1.56-2.60 - **12 months' risk:** ▪ Both genders: RR = 1.71, 95% CI 1.39-2.10 ▪ Female: RR = 2.31, 95% CI 1.47-3.65 ▪ Male: RR = 1.64, 95% CI 1.37-1.97
Schernhammer & Colditz, 2004[69] **USA**	Meta-analysis (D/SumD) - **Focus:** SC mortality among physicians depending on gender - **Included:** all designs, except case-reports (N= 25 studies) - **Population:** physicians (N = N/A)	SR	N/A	Depending on studies	Being a physician	<u>SC mortality in physicians (CA):</u> - Males: SMR = 1.41, 95% CI 1.21-1.65 - Females: SMR = 2.27, 95% CI 1.90-2.73 - Both genders: N/A

Hawton et al., 2001,[70] UK	Historical cohort study (D + A:WC) - **Focus:** SC mortality in Medical Doctors - **Inclusion period:** 1987 (D analysis) and 1991 (WC comparisons) - **Cohort:** Medical Doctors in the National Health Service (N = 413 006 PY) ▪ Male: 71.2% ▪ Mean age: N/A - **Follow-up periods:** 1991-1995 and 1979-1995	SC	Suicide or death of undetermined cause (ICD-9)	UK Office for National Statistics	Being a Medical Doctor	Adjusted SC mortality in Medical Doctors (CA): - Diminished in male: SMR = 66.8, 95% CI 46.6-87.0 - Augmented in female: SMR = 201.8, 95% CI 99.7-303.9
					Gender and seniority **In** Medical Doctors	Gender and seniority as independent RF for SC in Medical Doctors (CA): - Gender (female vs. male): NS - Seniority junior vs. senior): NS
					Speciality **In** senior Medical Doctors	Medical speciality (vs. general medicine) as an independent RF for SC in senior Medical Doctors (CA): - General practice: RR = 3.6, 95% CI 1.3- 9.9 - Anesthetics: RR = 6.8, 95% 2.2-20.8 - Community health: RR = 8.0, 95% CI 2.3-28.0 - Psychiatry: RR = 4.8, 95% CI 1.5-15.5
Substance use						
Kennedy et al., 2015[31] Canada	Prospective cohort study (A:E-NE + WC) - **Focus:** heavy alcohol use and suicidal behaviour among people who use illicit drugs - **Inclusion period:** 2005-2013 - **Cohort:** patients who use illicit drugs (either patients who had injected illicit drugs at least once in the previous month or HIV-infected patients who used illicit drugs other than or in addition to cannabinoids in the previous month) ▪ Male: 66.2% ▪ Median age = 42 (IQR= 35-48) - **Compared groups:** ▪ Heavy alcohol users (N = 308) ▪ Non-heavy alcohol users (N = 1449) - **Median follow-up:** 71 months (IQR 39.9-86.5)	SA	"Have you actually attempted suicide in the last 6 months?"	Monitoring	Heavy/at-risk alcohol use **In** patients who use illicit drugs	Cumulative incidence of SA in patients who use illicit drugs (CA): - At-risk/heavy alcohol users: CInc. = 14.6% - Non-at- risk/heavy alcohol users: CInc. = 7.5% **Cumulative incidence curves comparison:** p<.001 Heavy/at-risk alcohol use (yes vs. no) as an independent RF for SA in patients who use illicit drugs (CA): HR = 1.97, 95% CI 1.39-2.78
					Population: Patients who use illicit drugs	Independent RF for SA in patients who use illicit drugs (EA): - Experience of violence in the past 6 months: HR = 1.75, 95% CI 1.27-2.40 - Daily injection cocain use in the past 6 months: HR = 2.06, 95% CI 1.38-3.08

Bohnert et al., 2014[35] USA	Prospective cohort study (A:E-NE)
	- **Focus:** tobacco use disorder as a RF for SC
	- **Inclusion period:** 2005
	- **Cohort:** individual who received Veteran Health Administration services in 2005 and were still alive in 2006 (N = 4 863 086)
	  ▪ Male: 91.7%
	  ▪ Mean age = N/A
	- **Compared groups:**
	  ▪ Tobacco users (N = 753 368)
	    • Male: 94.5%
	    • Mean age = N/A
	  ▪ Tobacco non-users (N = 4 109 718)
	    • Male: 91.3%
	    • Mean age = N/A
	- **Follow-up:** 3 years
		SC	ICD-10-CM	US National Death Index	Tobacco substance use disorder **In** veterans	Tobacco use as an independent RF for SC in veterans (CA): HR = 1.47, 95% CI 1.27-1.46

					Tobacco substance use disorder **In** veterans with no psychiatric diagnosis	Tobacco use as an independent RF for SC in veterans with no psychiatric diagnosis (CA): HR = 1.36, 95% CI 1.30-1.65

Degenhardt et al., 2014[71] Australia	Historical cohort study (D)
	- **Focus:** causes of patients treated for opioid dependence
	- **Inclusion period:** 1985
	- **Cohort:** patients who registered for opioid substitution therapy (N = 43 789, 412 216 PY)
	  ▪ Male: 66.0%
	  ▪ Mean age = N/A
	- **Follow-up:** until 2005
		SC	ICD-9 and 10	Australian National Death Index	Opioid substance use disorder **In** the general population	SC mortality in patients with opioid substance use disorder (CA): SMR = 6.2, 95% CI 5.6-6.7

Fergusson et al., 2013[29] New-Zealand	Prospective cohort study (A:E-NE)
	- **Focus:** alcohol misuse and psychosocial outcomes in young adulthood
	- **Inclusion period:** 1989
	- **Cohort:** participants from the Christchurch Health and Development Study birth cohort aged 21 yo (N = 987)
	  ▪ Male: N/A
	- **Compared groups:**
	  ▪ No alcohol misuse (N = N/A)
	  ▪ Subclinical alcohol misuse (N = N/A)
		SI	N/A	Monitoring	Alcohol misuse **In** young adults	Alcohol misuse as an independent RF for SI in young adults (CA):
						- Subclinical misuse (vs. no misuse): OR = 2.54, 95% CI 1.55-4.16
						- Dependence (vs. no misuse): OR = 6.45, 95% CI 2.40-17.31

	▪ Alcohol dependence (N = N/A) **- Follow-up:** until 30 yo					
Van Ours et al., 2013[33] **Netherland**	Historical birth cohort study (A:E/NE) **- Focus:** cannabis use and SI in adolescents **- Inclusion period:** 1992 **- Cohort:** 15 yo adolescents born in the urban region of Christchurch, New Zealand in 1977 (N = 938) ▪ Male: 46.8% **- Compared groups:** ▪ No cannabis use (N = N/A) ▪ At least monthly use (N = N/A) ▪ At least weekly use (N = N/A) ▪ Use several times per week (N = N/A) ▪ Daily use (N = N/A) **Follow-up:** until age of 30 yo	SI	Thinking about taking one's own life	Monitoring	Cannabis use **In** adolescents	Cannabis use (vs. no cannabis use) as an independent RF for SI in male / female adolescents (CA): **-** At least monthly: E = 0.92, StdE 3.5 / E = 0.59, StdE 2.0 **-** At least weekly: E = 1.27, StdE 4.7 / E = 0.94, StdE 3.2 **-** Several times per week: E = 1.59, Std E 6.3 / E = 0.98, StdE 3.1 **-** Daily: E = 3.02, StdE 9.6 / N/A
Gibson et al., 2011[72] **Australia**	Historical cohort study (D) **- Focus:** mortality among opioid users **- Inclusion period:** 1980-1985 **- Cohort:** patients approved to receive methadone syrup for the treatment of opioid dependence (N = 2 489, 54 845 PY) ▪ Male: 57.0% ▪ Mean age = N/A **- Mean follow-up:** until 2008	SC	ICD-9 and 10	Australian National Death Index	Opioid substance use disorder **In** the general population	SC mortality in opioid user (CA): SMR = 6.3, 95% CI 4.4-8.7
Marshall et al., 2011[73] **Canada**	Prospective cohort study (D+A:WC) **- Focus:** RF of SA in patients using intravenous drugs **- Inclusion period:** 2001 **- Cohort:** >14 yo individuals who injected drugs during the past six months (N = 1 873, 5 848 PY) ▪ Male: 63.8% ▪ Mean age = 31 (IQR 32-46) **Mean follow-up:** until 2008	SA	"In the past 6 months, have you attempted suicide?"	Monitoring	Methamphetamine injection **In** patients using intravenous drugs	Injection of Methamphetamine (yes vs. no) as in independent RF for SC patients using intravenous drugs (CA): HR = 1.80, 95% CI 1.08-2.99

Hemmingson & Kriebel, 2003[34] Sweden	Historic cohort study (A:E-NE)
	- **Focus:** smoking at age 18-20 and SC
	- **Inclusion period:** 1969-1970
	- **Cohort:** young males aged 18-21 yo who were conscripted for compulsory military service (N = 42 575)
	  ▪ Mean age = N/A
	- **Reconstituted comparison groups:**
	  ▪ Non-smokers (N = 17 665)
	  ▪ Smokers 1–10 cigarettes/day: (N = 13 597)
	  ▪ Smokers 11–20 cigarettes /day: (N = 9 867)
	  ▪ Smokers 20 cigarettes /day: (N = 1 446)
	Follow-up: 26 years
		SC	ICD-8 and 9	National Cause of Death Register	Smoking cigarettes	Smoking cigarettes as an independent RF for SC in young males (CA): NS

Miller et al., 2000[36] USA	Prospective cohort study (A:E-NE)
	- **Focus:** suicide mortality in men cigarette smokers
	- **Inclusion period:** 1986
	- **Cohort:** male health professionals aged 40-75 yo at baseline (N = 51 529)
	  ▪ Mean age: N/A (range: 40-75)
	- **Compared groups:**
	  ▪ Never smokers (N = 22 845)
	  ▪ Former smokers (N = 21 652)
	  ▪ Current smokers, 1-14 cigarettes/day (N = 1 333)
	  ▪ Current smokers, ≥ 15 cigarettes/day (N = 2 241)
	- **Follow-up:** 8 years
		SC	ICD-8	Consultation of next of kin, work associates, postal authorities and US National Death Index	Smoking **In** men	Smoking as an independent risk for SC in male (CA):
						- Former smokers (vs. no smokers): NS
						- Current smokers, 1-14 cigarettes/day (vs. no smokers): NS
						- Current smokers, ≥ 15 cigarettes/day (vs. no smokers): RR = 4.3, 95% CI 2.2-8.5

Environmental factors						
Fergusson et al., 2014[74] New-Zealand	Historic cohort study (A:E-NE) - **Focus:** mental health consequences of the Canterbury earthquakes - **Inclusion period:** 2010 - **Cohort:** participants from the Christchurch Health and Development Study birth cohort aged 35 yo in 2012 (N = 952) ▪ Male: N/A - **Compared groups:** ▪ Non-exposed to the earthquakes (N = 409) ▪ Exposed to the earthquakes (N = 543) **Follow-up:** 2010-2012	SI or SA	N/A	Monitoring	Earthquake exposure **In** young adults	Earthquake level of exposure (ord.) as an independent RF for SC in young adults (CA): NS
Neeleman & Wessely, 1999[75] UK	Historic cohort study (A:WC) - **Focus:** relationship between ethnicity and suicide risk - **Inclusion period:** 1991 - **Cohort:** inhabitants of South London (N = 902 008) ▪ Male: N/A ▪ Mean age: N/A - **Subgroup:** individuals from ethnic minorities ▪ Male: N/A ▪ Mean age: N/A - **Follow-up:** until 1993	SC	Death with suicide verdicts, suicide notes, methods unambiguously indicated and/or communications of suicidal intent	UK Office for National Statistics	Local deprivation **In** urban dwellers	Local deprivation as an independent predictor for SC in urban dwellers: OR = 1.13, 95% CI 1.0-1.27
					Ethnic minority density **In** individuals from the corresponding urban ethnic minority	Ethnic minority density as an independent predictor for SC in the corresponding ethnic minority: RR ratio: 0.67, 95 % CI 0.51-0.87
Suicidal behaviour anteriority						
Al-Sayegh et al., 2015[76] USA	Prospective cohort study (A:WC) - **Focus:** suicide history and mortality - **Inclusion period:** 1988-1994 - **Cohort:** young adults aged 19-39 yo (N = 6 293) ▪ Male: 45.1% ▪ Mean age = 27.0 (SD N/A) - **Mean follow-up:** until 2006 (mean = 14.9, SD 5.1)	SC	ICD-9 and 10	US National Death Index	PH of suicidal tendency **In** young adults	PH of suicidal tendency as an independent RF for SC in young adults (CA): - PH of SI (vs. no PH of suicidal tendency): HR = 1.93, 95% CI 0.40-9.20 - PH of SA (vs. no PH of suicidal tendency): HR = 7.10, 95% CI 1.37-36.9
Bryan et al., 2015[44] USA	Prospective cohort study (A:WC) - **Focus:** NSSI and SA as a RF for SA in a clinical sample of military personnel - **Inclusion period:** N/A - **Cohort:** at-risk active duty soldiers (current SI	SA	Suicide Attempt Self Injury Interview	Monitoring	PH of NSSI or SA **In** at-risk military personnel (current SI of SA during the past month)	Self-injury as an independent RF for SA in at-risk military personnel (CA): - PH of NSSI (yes vs. no): HR = 2.25, 95% CI 1.02-4.96 - PH of SA (yes vs. no): NS - PH of SA only (vs. PH of SA and NSSI): HR = 0.40, 95% CI 0.16-1.00 (lesser risk)

	of SA during the past month) participating in a RCT testing a brief cognitive-behaviour therapy for the reduction of SA (N = 176) 　■ Male: 86.9% 　■ Mean age = 27.5 (SD 6.3) **- Follow-up:** 2 years				Number of past NSSI episodes **In** at-risk military personnel with PH of SA	<u>Independent RF for SA repetition in military personnel with PH of SA (EA):</u> **-** Number of NSSI episodes: HR = 0.66, 95% CI 0.35-1.24 **-** Number of SA: NS
					Number of past NSSI episodes **In** at-risk military personnel with no PH of SA repetition	<u>Independent RF for SA repetition in military personnel with no PH of SA (EA):</u> Number of NSSI: HR = 1.07, 95% CI 1.00-1.15
Stenbacka & Jokinen, 2015[39] Sweden	<u>Prospective cohort study (A:WC)</u> **- Focus:** role of early RF in violent and non-violent methods of SA and SC **- Inclusion period:** 1969-1970 **- Cohort:** young men conscripted for military service, born between 1949 and 1951(N = 48 834) 　■ Mean age at the end of follow-up ≈ 55-56 (SD N/A) **- Sub-group:** young men who attempted suicide (N = 1 195) 　■ Mean age = N/A **- Follow-up:** until 2010 (mean = 36.2, SD N/A)	SA SC	Determined and undetermined SA (ICD-8 to 10) SC or SC with undetermined intent (ICD-8 to 10)	Swedish National Inpatient Register Swedish National Board of Health	**Population:** Young men	<u>Independent early RF for violent / non-violent SA in young men (EA):</u> **-** Family nervous problems (yes vs. no): NS / HR = 1.18, 95% CI 1.02-1.38 **-** Fathers alcohol habits (yes vs. no): NS / HR = 1.33, 95% CI 1.03-1.73 **-** Own medication for psychiatric problems (no vs. yes): HR = 2.12, 95% CI 1.52-2.96 / HR = 1.70, 95% CI 1.40-2.05 **-** Intelligence (average or below average vs. above average): HR = 1.75, 95% CI 1.32-2.33 / HR = 1.86, 95% CI 1.60-2.18 **-** Emotional control (low vs. high or medium): NS / HR = 1.36, 95% CI 1.14-1.63 **-** Psychiatric diagnosis at conscription (yes vs. no): NS / HR = 1.38, 95% CI 1.14-1.68 **-** Conduct problems at school (yes vs. no): HR = 2.16, 95% CI 1.62-2.89 / HR = 1.43, 95% CI 1.22-1.69 **-** Contact with police or juvenile authorities (yes vs. no): NS / HR = 1.80, 95% CI 1.53-2.12 **-** Smoking (≥10 cigarettes per day vs. <10 cigarettes per day): NS / HR = 1.26, 95% CI 1.08-1.48 **-** Problem drinking (yes vs. no): NS / HR = 1.54, 95% CI 1.27-1.87 **-** Sniffing of solvents (yes vs. no): HR = 1.58, 95% CI 1.14-2.17 / HR = 1.35, 95% CI 1.13-1.62
					Method of SA **In** young men with PH of SA	<u>Method of SA as an independent RF for SC in young men with PH of SA (EA):</u> **-** Poisoning (yes vs. no): HR = 4.27, 95% CI 3.12-5.84 **-** Hanging, strangulation or suffocation (yes vs. no): HR = 18.28, 95% CI 8.58-38.97 **-** Firearm (yes vs. no): HR = 5.18, 95% CI 1.27-21.24 **-** Cutting or piercing (yes vs. no): HR = 5.74, 95% CI 3.07-10.73 **-** Jumping from a height (yes vs. no): HR = 8.74, 95% CI 3.20-23.85
Bhaskaran et al., Canada[49] 2014	<u>Prospective cohort study (A:WC)</u> **- Focus:** method of SA and reaction to survival as predictors of SA repetition **- Inclusion period:** 2009-2012 **- Cohort:** patients who presented to the emergency department or consult service with a SA (N = 922) 　■ Male: 44.9% 　■ Mean age = N/S **- Follow-up:** 6 months	SA	Columbia Classification Algorithm of Suicide Assessment	Monitoring	Reaction to survival after SA **In** attempters	<u>Reaction to survival as an independent predictor for SA reattempt after a SA (CA):</u> **-** Ambivalent (vs. glad to be alive): OR = 2.84, 95% CI 1.44-5.54 **-** Wished to be dead (vs. glad to be alive): OR = 2.68, 95 % CI 1.17-6.17
					Lethality of SA **In** attempters	<u>Lethality as an independent predictor for SA reattempt after a SA (CA):</u> NS

Study	Methodology	Outcome	Scale	Source	Risk factor	Results

Miranda et al., 2014[18] **USA**	Prospective cohort suicide (A:WC)
	- **Focus:** RF for adolescents' suicide reattempt in relation to the past SA's characteristics
	- **Inclusion period:** N/A
	- **Cohort:** 12-18 yo adolescents with PH of SA
	  ▪ Male: 20.4%
	  ▪ Mean age = 15.8 (SD 1.4)
	- **Mean follow-up:** 5.4 years (SD 0.9)
		SA	Adolescent Suicide Interview	Monitoring	Characteristics of previous SA
					In adolescents with PH of SA
						Independent RF for SA repetition in relation to the past SA's characteristics in adolescent suicide attempters (CA):
						- Expressed wish to die (vs. no or uncertain wish to die): OR = 5.2, 95% CI 1.2-22.7
						- SA while alone (vs. SA while someone present, home or in the vicinity): OR = 6.1, 95% CI 1.1-34.8
						- Wish to die >1hour prior the SA (vs. ≤1hour wish or no wish): OR = 5.1, 95% CI 1.1-25.0

Caroll et al., 2013[77] **UK**	Historical cohort study (A:WC)
	- **Focus:** epidemiology, management and outcome of paracetamol poisoning in an inner city emergency department
	- **Inclusion period:** 2011-2012
	- **Cohort:** patients who had taken a paracetamol overdose (N = 374)
	  ▪ Male: 38.2%
	  ▪ Median age = 29 (IQR 21-43)
	Median follow-up: 153 days (IQR N/A)
		DSH	N/A	Bristol Self-Harm Surveillance Register	Blood paracetamol concentration at 4h threshold
					In attempters
						High blood paracetamol concentration at 4h threshold (>200mg/L vs. < 100 mg/L) as an independent RF for DSH after paracetamol self-poisoning (CA): HR = 2.17, 95% CI 1.11-4.21

Cox et al., 2012[78] **USA**	Prospective cohort study (A:WC)
	- **Focus:** demographic and clinical predictors of NSSI and NSSI as a RF for SA in offspring of mood-disordered probands
	- **Inclusion period:** N/A
	- **Cohort:** ≥10 yo offspring of mood-disordered probands (DSM-IV) with or without a personal history of SA (N = 352)
	  ▪ Male: 51.4%
	  ▪ Mean age = N/A
	- **Mean follow-up:** 3.8 years (SD 1.8)
		SA	Columbia University Suicide History Form	Monitoring	Personal history of NSSI
					In offspring of mood-disordered probands
						Baseline personal history of NSSI (yes vs. no) as an independent RF for SA in offspring at high risk of mood disorder (CA): OR = 9.75, 95% CI, 2.32-40.87

González-Pinto et al., 2011[43] **Spain**	Prospective cohort study (A:E-NE)
	- **Focus:** long-term prognosis in mixed bipolar patients
	- **Inclusion period:** 1994
	- **Cohort:** patients with a diagnosis of bipolar I disorder (DSM-III-R and DSM-IV) who were receiving long-term prophylactic treatment, with at least one mixed-episode during follow-up (N = 44)
	  ▪ Male: 38.6%
	  ▪ Mean age = 47.1 (SD 16.0)
	- **Compared groups:**
	  ▪ PH of previous SA (N = 17)
	  ▪ No PH of previous SA (N = 27)
	- **Follow-up:** 10 years
		SA	Suicide or a self-destructive act sufficient to require medical evaluation and carried out with probable suicidal intent	Monitoring	PH of previous SA
					In bipolar I disorder patients with at least one mixed-episode
						PH of previous SA (yes vs. no) as an independent RF for SA repetition in bipolar I disorder patients with at least one mixed-episode (EA):
						- Cumulative incidences curves comparison: p = .014
						- Cox regression: HR = 2.26, 95% CI 1.21-4.21

Cooper et al., 2005[79] UK	Prospective cohort study (D + A:WC)
	- **Focus:** risk of SC after DSH
	- **Inclusion period:** 1997-2001
	- **Cohort:** patients presenting at an emergency department with DSH (N = 7 968)
	  ▪ Median age = 30 (IQR 10-92)
	  ▪ Male: 43%
	Follow-up: 4 years
		SC	Death due to suicide and undetermined cause (ICD-9)	Office for National Statistics	PH of DSH
					In the general population
						SC mortality within 4 years after DSH (CA):
						- Male: SMR = 28.7, 95% CI 20.3–39.4
						- Female: SMR = 49.6, 95% CI 31.1-75.0
						Both genders: SMR = 33.9, 95% CI 25.9-43.7

					Population: Patients with PH of DSH	Independent RF of SC after DSH (EA): - Not living with a close relative: HR = 2.90, 95% CI 1.48-5.67 - Avoided discovery at time of self- harm: HR = 2.82, 95% CI 1.44-5.50 Current alcohol misuse: HR = 2.05, 95% CI 1.12-3.74

Zahl & Hawton, 2004[47] UK	Historic cohort study (A:E-NE)
	- **Focus:** repetition of DSH and subsequent SC risk
	- **Inclusion period:** 1978-1997
	- **Cohort:** patients who presented to general hospital with an episode of DSH (N = 11 583)
	  ▪ Male: 39.2%
	  ▪ Mean age = N/A
	- **Reconstituted compared groups:**
	  ▪ Repeated DSH (N = 4 540)
	  ▪ Single-episode DSH (N = 7 043)
	- **Follow-up:** until 2000 (mean = 11.4 [range: 1 day-23 years])
		SC	ICD	Office for National Statistics for England and Wales + equivalent registries in Scotland and Northern Ireland
				
				SC ascertainment from death certificates
					DSH repetition
					In self-harmers
						Cumulative incidence of SC after DSH (CA):
						- Both genders:
						  ▪ Single episode: CInc. = 1.9%, 95% CI 1.5-2.3
						  ▪ >1 episodes: Cinc. = 4.7%, 95% CI 3.9-5.4
						    Cumulative incidence curves comparison : p<.0001
						- Female:
						  ▪ Single episode: Cinc. = 0.9%, 95% CI 0.6-1.2
						  ▪ >1 episodes: Cinc. = 3.3, 95% CI 2.5-4.1
						    Cumulative incidence curves comparison : p<.0001
						- Male:
						  ▪ Single episode: Cinc. = 3.5%, 95% CI 2.7-4.3
						  ▪ >1 episodes: Cinc. = 6.9%, 95% CI 5.5-8.4
						    Cumulative incidence curves comparison : p<.0001
						Multiple DSH (vs. single-episode DSH) as an independent RF for SC in patients with PH of DSH (CA):
						- Stratified on gender:
						  ▪ Both genders: N/A
						  ▪ Male: HR = 1.88, 95% CI 1.42-2.50
						  ▪ Female: HR = 3.48, 95% CI 2.38-5.40
						- Within the 10-24 yo sub-group:
						  ▪ Both genders: N/A
						  ▪ Male: HR = 2.0, 95% CI 1.2-3.3
						  ▪ Female: HR = 7.1, 95% CI 2.9-17.3

					Multiple DSH repetition
					In individuals with repeated episodes of self-harm
						Cumulative incidence of SC after DSH repetition (CA):
						- Both genders:
						  ▪ Single repetition: N/A
						  ▪ >1 repetitions: N/A
						    Cumulative incidence curves comparison : p = .031
						- Female:
						  ▪ Single repetition: Cinc. = 2.5%, 95% CI 1.7-3.3
						  ▪ >1 repetitions: Cinc. = 4.7%, 95% CI 3.0-6.4

						Cumulative incidence curves comparison : p<.015
						- Male:
						  ▪ Single repetition: Cinc. = 6.6%, 95% CI 4.8-8.4
						  ▪ >1 repetitions: Cinc. = 7.5%, 95% CI 5.0-10.1
						  Cumulative incidence curves comparison : NS

Hawton et al., 2003[30] **UK**	Historical cohort study (D + A:WC)
	- **Focus:** risk of SC after DSH
	- **Inclusion period:** 1978-1997
	- **Study period:** 1978-2000
	- **Cohort:** Patients who presented to hospital after DSH (N = 11 583)
	  ▪ Male: 39.9%
	  ▪ Mean age = 30.7 (SD 7.6)
	- **Follow-up:** until 1987 (median = 10.8 years [IQR 1-23 years])
		SC	Suicide, death of undetermined cause or accidental poisoning (ICD-10)	UK Office for National Statistics	DSH	Age-standardized SC mortality in the first year after DSH, depending on sex (CA):
						- Both genders: SMR ≈ 6 600, CI 95% CI 5 200-8 200
						- Males: SMR ≈ 6 400, CI 95% CI 4 600-8 500
						- Female: SMR ≈ 9 000, 95% CI 6 200-12 600
						SC mortality in the first year after DSH, depending on age (CA):
						- In the 10-24 yo:
						  ▪ male: SMR ≈ 3 500, 95% CI 1 600-7 900
						  ▪ female: SMR ≈ 7 500, 95% CI 3 500-15 700
						- In the >55 yo:
						  ▪ male: SMR ≈ 13 100, 95% CI 6 800-25 200
						female: SMR ≈ 15 800, 95% CI 8 500-29 400

					Age and gender **In** self-harmers	Cumulative incidence of SC after DSH (CA):
						- Stratified on sex:
						  ▪ Male: CInc. = 4.8%, 95% CI = 4.1-5.6
						  ▪ Female: CInc. = 1.8%, 95% CI = 1.5-2.2
						  Cumulative incidence curves comparison: p<.0001
						- Stratified on age:
						  ▪ 10-24 yo: CInc. = 1.8%, 95% CI 1.5-2.3
						  ▪ 25-34 yo: CInc. = 3.0%, 95% CI 2.4-3.9
						  ▪ 35-54 yo: CInc. = 4.3%, 95% CI 3.5-5.3
						  ▪ ≥55 yo: CInc. = 6.7%, 95% CI 4.8-9.4
						  Cumulative incidence curves comparison: p<.0001 both in male and female
						Sex as an independent RF for SC after DSH (CA): OR = 2.8, 95% CI 2.2-3.6

Life adversity						

Björkenstam et al., 2016[80] **Sweden**	Historical birth cohort study (A:WC)
	- **Focus:** childhood household dysfunction as a RF for DSH
	- **Inclusion period:** 1987-1991
	- **Cohort:** 15 yo adolescents born in Stockholm County and recorded in the Medical Birth Register (N = 107 518)
	  ▪ Male: 51.0%
	- **Follow-up:** until 2011
		DSH	ICD-10	Swedish National Patient Register and Swedish VAL database	Childhood household dysfunction **In** adolescents	Childhood household dysfunction as an independent RF for DSH in adolescents (CA):
						- Stratified on the dysfunction indicators (vs. no indicator):
						  ▪ Whereof family suicide: HR = 2.4, 95% CI 1.5-3.7
						  ▪ Parental substance abuse: HR = 2.0, 95% CI 1.8-2.3
						  ▪ Parental psychiatric morbidity: HR = 2.2, 95% CI 1.9-2.6
						  ▪ Parental criminality: HR = 1.Z, 95% CI 1.4-2.0
						  ▪ Parental separation/single parent household: HR = 1.9, 95% CI 1.7-2.1
						  ▪ Household receiving public assistance: HR = 2.0, 95% CI 1.8-2.3
						  ▪ Residential instability: HR = 1.8, 95% CI 1.5-2.1
						- Stratified on the number of dysfunction indicators (vs. 0):
						  ▪ 1: HR = 1.5, 95% CI 1.3-1.8
						  ▪ 2: HR = 2.2, 95% CI 1.9-2.5
						  ▪ 3: HR = 2.7, 95% 2.3-3.2
						  ▪ 4: HR = 3.3, 95% 2.7-4.1
						  ▪ 5-8: HR = 4.9, 95% 3.8-6.4

						- Mediation analyses:
						  ▪ Mediating effect of childhood psychopathology: p<.0001
						  ▪ Mediating effect of school performances: p<.0001

Guendelman et al., 2016[81] **USA**	<u>Prospective cohort study (A:E-NE)</u>
	- **Focus:** early-adult correlates of maltreatment in girls with attention- deficit/hyperactivity disorder
	- **Inclusion period:** 1997-1999
	- **Cohort:** 6-12 yo female patients with a diagnosis of ADHD (definition: N/A) and who were involved in a research summer program (N = 130)
	  ▪ Mean age = N/A
	- **Compared groups:**
	  ▪ Maltreated (N = N/A)
	  ▪ Non maltreated (N = N/A)
	- **Follow-up:** 10 years
		SA	Barkley Suicide Questionnaire	Monitoring	Maltreatment **In** female children with ADHD	<u>Maltreatment (yes vs. no) as an independent RF for SA in female children with ADHD (CA):</u> OR = 1.85, 95% CI = 1.14-3.00

Hadland et al., 2015[82] **Canada**	<u>Prospective cohort study (A:WC)</u>
	- **Focus:** SA and childhood maltreatment among street youth
	- **Inclusion period:** 2005-2013
	- **Cohort:** 14-26 yo individuals with street involvement in the preceding 6 months and past-month illicit drug use (N = 660, 1 941 PY)
	  ▪ Male: 68.2%
	  ▪ Median age = 22 (IQR 20-24)
	- **Median follow-up:** 26 months (IQR 16-48)
		SA	"In the last 6 months, have you attempted suicide?"	Monitoring	Childhood maltreatment **In** street youth with drug use	<u>Childhood maltreatments as independent RF for SA in street youth with drug use (CA):</u>
						- Physical abuse (moderate to extreme vs. none to moderate):
						  ▪ Cumulative incidence comparison: p = .032
						  ▪ Cox regression: HR = 2.74, 95% CI 1.03-7.28
						- Emotional abuse (moderate to extreme vs. none to moderate):
						  ▪ Cumulative incidence comparison: p < .001
						  ▪ Cox regression: NS
						- Physical neglect (moderate to extreme vs. none to moderate):
						  ▪ Cumulative incidence comparison: p < .001
						  ▪ Cox regression: NS
						- Emotional neglect (moderate to extreme vs. none to moderate):
						  ▪ Cumulative incidence comparison: p = .020
						  ▪ Cox regression: NS
						- Any type of abuse/neglect (moderate to extreme vs. none to moderate):
						  ▪ Cumulative incidence comparison: p < .001
						  ▪ Cox regression: NS

Turanovic & Pratt, 2015[83] **USA**	<u>Prospective cohort study (A:WC)</u>
	- **Focus:** longitudinal effects of violent victimization during adolescence on adverse outcomes in adulthood
	- **Inclusion period:** 1994-1995
	- **Cohort:** adolescent students from middle or high school (N = 13 555)
	  ▪ Male: 47.2%
	  ▪ Mean age = 15.0 (range: 11-18)
	- **Follow-up ≈** 7 years
		SA
		
		SI
			Actually tried to commit suicide in the past 12 months
			
			Seriously thinking about committing suicide in the past 12 months
				Monitoring
				
				Monitoring
					Victimization **In** adolescents	<u>Victimization (yes vs. no) as an independent RF for SA in adolescents (CA):</u>
						- Male: E = 0.61, StdE 0.24, p<.01
						- Female: E = 0.62, StdE 0.23, p<.01
						<u>Victimization (yes vs. no) as an independent RF for SA in adolescents (CA):</u>
						- Male: E = 0.27, StdE 0.12, p<.05
						- Female: E = 0.51, StdE 0.14, p<.01

Study	Description	Type	Definition	Source	Population	Results

Wang et al., 2015[84] USA	Prospective cohort study (A:WC)
	- **Focus:** stressful life events as RF for SB in major depressive disorder
	- **Inclusion period:** 2001-2002
	- **Cohort:** non-institutionalized adults who endorsed one of the following two MDD symptoms: "In your entire life, have you ever had a time, lasting at least 2 weeks, when you felt sad, blue, depressed, or down most of the time for at least 2 weeks?" or "In your entire life, have you ever had a time, lasting at least 2 weeks, when you didn't care about the things that you usually enjoyed?" (N = 6004)
	  ▪ Male: 34.3%
	  ▪ Mean age: N/A
	- **Follow-up:** 3 years
		SA
		
		SI
			During that time when your mood was at its lowest, did you attempt suicide?
			
			"During that time when your mood was at its lowest, did you think about committing suicide, feel like you wanted to die or think a lot about your own death?"
				Monitoring
				
				Monitoring
					Stressful life events
					In depressed patients
						<u>Stressful life events as independent RF for SA in depressed outpatients (CA):</u>
						- Victim of a crime (yes vs. no): OR = 1.98, 95% CI 1.18-3.31
						- Serious problems with neighbor, friend or relative (yes vs. no): OR = 2.35, 95% CI 1.48-3.74
						- Financial stress (yes vs. no): OR = 1.72, 95% CI 1.06-2.78
						- Major financial crisis, bankruptcy or unable to pay bills (yes vs. no): OR = 2.37, 95% CI 1.46-3.83
						<u>Stressful life events as independent RF for SI in depressed outpatients (CA):</u>
						- Loss or victimization (yes vs. no): OR = 1.26, 95% CI 1.05-1.51
						- Serious problems with neighbor, friend or relative (yes vs. no): OR = 1.52, 95% CI 1.20-1.91
						- Financial stress (yes vs. no): OR = 1.36, 95% CI 1.12-1.65
						- Major financial crisis, bankruptcy or been unable to pay bills (yes vs. no): OR = 1.56, 95% CI 1.28-1.89
						- Amount of stressful life events (cont.): OR = 1.06, 95% CI 1.02-1.11

Baumert et al., 2014[85] Germany	Prospective cohort study (A:WC)
	- **Focus:** potential harms of a negative working environment for employed subjects
	- **Inclusion period:** 1984-1995
	- **Cohort:** 25-74 yo employees (N = 6 817)
	  ▪ Male: 62.6%
	  ▪ Mean age = 42.2 (SD 10.4)
	- **Follow-up:** until 2011 (mean = 12.6 years, SD 4.2)
		SC	ICD-9 and 10	Local health departments	Adverse conditions at workplace
					In employees
						<u>Adverse conditions at the workplace as an independent RF for SC in employees (CA):</u>
						- Adverse chronobiological/physical working conditions (high vs. low or intermediate): HR = 2.73, 95% CI 1.16-6.42
						- Adverse psychosocial working conditions (high vs. low or intermediate): NS
						- Job strain (high vs. low or intermediate): NS

Devries et al., 2014[86] UK	Meta-analysis (A:RFF/SD)
	- **Focus:** childhood sexual abuse and SB
	- **Include:** prospective or retrospective longitudinal studies (N = 7) and co-twin studies (N = 2) (total: N = 9 studies)
	- **Population:** individual with or without PH of childhood sexual abuse (N = 12 819 487)
	  ▪ Male: N/A
	  ▪ Mean age: N/A
		SC
		SA
			N/A
			N/A
				Coroner records
				Depending on studies
					Childhood sexual abuse
					In the general population
						<u>PH of childhood sexual abuse (yes vs. no) as an independent RF for SC or SA in the general population:</u> OR = 2.43, 95% CI 1.94-3.05

Riihimäki et al., 2014[28] Finland	Prospective cohort study (A:WC) - **Focus:** predictors of SA among primary-care patients with depressive disorders - **Inclusion period:** N/A - **Cohort:** 20-69 yo primary care patients with a current diagnosis of major depressive disorder, dysthymia, subsyndromal major depressive disorder with 2-4 depression	SA	Involve at least some degree of intent to die	Monitoring	**Population:** Primary care depressed adults	<u>Independent RF for SA in primary care depressed adults (EA):</u> - Comorbid substance use disorder (yes vs. no): OR = 20.40, 95% CI 4.57-91.03 - Personal history of SA prior to baseline (yes vs. no): OR = 4.386, 95% CI 1.10-17.56

Study	Description	Outcome	Coding	Data source	Population/Comparison	Results

	symptoms and lifetime major depressive disorder, or minor depression without lifetime major depressive disorder (DSM-IV) (N = 134)
	  ▪ Male: 75.4%
	  ▪ Mean age = 45.3 (SD 13.6)
	Mean follow-up: 5 years					

Spitall et al., 2014[87] Australia	<u>Historical cohort study (D)</u>
	- Focus: SC in adults released from prison
	- Inclusion period: 1994-2007
	- Cohort: adults released from prison in Queensland (N = 41 970, 270 394 PY spent in the community)
	  ▪ Male: 88.1%
	  ▪ Mean age = N/A
	Follow-up: until 2007 (median = 6.8 years spent in the community, IQR N/A)
		SC	ICD-9 and 10	Australian National Death Index	Being released from prison **In** the general population	<u>SC mortality in adults released from prison, stratified on gender (CA):</u>
						- Both genders: SMR = 7.6, 95% CI 6.8-8.4
						- Male: SMR = 4.8, 95% CI 4.3-5.4
						- Female: SMR = 14.2, 95% CI 9.6-20.3

Duthé et al., 2013[88] France	<u>Prospective cohort study (D+A:WC)</u>
	- Focus: SC among male prisoners
	- Study period: 2006-2009
	- Cohort: adult male prisoners (N = 196 916.8 PY)
	  ▪ Mean age: N/A
	- Follow-up: 42 months
		SC	N/A	French Penal Administration	**Population:** Male prisoners	<u>Independent RF for SC in male prisoners (EA):</u>
						- Placement in disciplinary cell (vs. ordinary cell): HR = 15.7, 95% CI 10.6-23.5
						- Type of offence (vs. other offence):
						  ▪ Homicide: HR = 7.6, 95% CI 5.3-10.9
						  ▪ Rape: HR = 4.6, 95% CI 3.2-6.6
						  ▪ Other sexual assault vs. other offences: HR = 2.9, 95% CI 1.9-4.6
						  ▪ Other violence assault vs. other offences: HR = 2.1, 95% CI 1.5-2.8
						- Hospitalization (≥1 vs. 0): HR = 1.6, 95% CI 1.3-2.0
						- Age at incarceration (>30 yo vs. ≤30 yo): HR = 1.4, 95% CI 1.1-1.7
						<u>Independent PF for SC in male prisoners (EA):</u>
						Visits from relatives or friends (≥1 vs. 0) : HR = 0.4, 95% CI: 0.3-0.5

Fergusson et al., 2013[29] New-Zealand	<u>Historic cohort study (A:E-NE)</u>
	- Focus: childhood sexual abuse and adult developmental outcomes
	- Inclusion period: 1995-1998
	- Cohort: young adults aged 18 or 21 yo, enrolled in the Christchurch Health and Development Study birth cohort (N = 984)
	  ▪ Male: N/A
	  ▪ Mean age = N/A
	- Compared groups:
	  ▪ No sexual abuse in childhood (N = 809)
	  ▪ Sexual abuse without contact in childhood (N = 28)
	  ▪ Sexual abuse with contact in childhood (N = 51)
	  ▪ Sexual abuse with penetration in childhood (N = 62)
		SA
		SI
			N/A
			N/A
				Monitoring
				Monitoring
					Childhood sexual abuse **In** young adults	<u>Childhood sexual abuse as an independent predictor for SI in young adults (CA):</u>
						- Childhood sexual abuse severity (ord.): E = 0.395, StdE 0.089, p<.001
						- Childhood sexual abuse with penetration (vs. no sexual abuse or sexual abuse without penetration): E = 1.863, StdE 0.403, p<.001

	- Follow-up: until 30 yo					
Fisher et al., 2013[89] **Australia**	Prospective cohort study (A:WC) **- Focus:** intimate partner violence and perinatal common mental disorders among women in rural Vietnam **- Inclusion period:** 2009-2011 **- Cohort:** Vietnamese pregnant women who were between 12 and 20 weeks gestation (N = 453) ▪ Mean age: N/A **Follow-up:** until the offspring was 6 months-old	SI	Edinburgh Post-natal Depression Scale-V	Monitoring	Intimate partner violence **In** pregnant women	Intimate partner violence as an independent RF for SI in pregnant women (CA): **-** Emotional abuse (yes vs. no): OR = 6.1, 95% CI 2.3-15.9 **-** Physical violence (yes vs. no): OR = 5.1, 95% CI 2.0-12.9 **-** Violence severity (vs. no violence): ▪ Moderate: OR = 4.7, 95% CI 1.7-13.6 ▪ Severe: OR = 5.9, 95% CI 1.5-23.5 **-** Sexual violence (yes vs. no): OR = 5.0, 95% CI 1.5-15.9 **-** Number of forms of violence (vs. no violence): ▪ One form of violence: OR = 4.8, 95% CI 1.7-13.7 Two or three forms of violence: OR = 7.7, 95% CI 2.4-24.5
Garcy & Vågerö, 2013[90] **Sweden**	Historical cohort study (A:WC) **- Focus:** unemployment and SC during and after a deep recession **- Inclusion period:** 1991 **- Cohort:** all individuals born between 1931 and 1965, who were still alive in 1993 and who were gainfully employed in 1990 (N = 3 424 550) ▪ Male: 51.6% ▪ Mean age = N/A **Follow-up:** until 2002	SC	Suicide mortality and death of undetermined intent (ICD-9 and 10)	Swedish Cause of Death Registry	Unemployment **In** previously working individuals	Unemployment (yes vs. no) as an independent RF for SC in previously working individuals (CA): **- Men:** ▪ During the recession: HR: NS ▪ After the recession: HR = 1.48, 95% CI 1.33-1.63 ▪ Overall: HR = 1.30, 95% CI 1.20-1.40 **- Women:** ▪ During the recession: NS ▪ After the recession: HR = 1.26, 95% CI 1.04-1.54 ▪ Overall: HR = 1.22, 95% CI 1.04-1.42
Isohookana et al., 2013[91] **Finland**	Prospective cohort study (A:WC) **- Focus:** adverse childhood experiences and SB of adolescent psychiatric inpatients **- Inclusion period:** 2001-2006 **- Cohort:** adolescent psychiatric inpatients aged 12-17 yo (N = 508) ▪ Male: 40.9% ▪ Mean age = 15.4 (SD N/A) **- Follow-up:** until 2011	SA	Schedule for Affective Disorder and Schizophrenia for School-Age Children Present and Lifetime	Statistics Finland	PH of adverse childhood experience **In** adolescent psychiatric inpatients	PH of adverse childhood experience as an independent RF for SC in adolescent psychiatric inpatients (CA): **- Male gender:** ▪ Sexual abuse (yes vs. no): OR = 2.28, 95% CI 1.04-4.97 **- Female gender:** NS
King et al., 2013[16] **USA**	Prospective cohort study (A:WC) **- Focus:** trajectories of acutely suicidal adolescents who are classified into bullying perpetrator **- Inclusion period:** 2002-2005 **- Cohort:** 13-17 yo inpatient suicidal adolescents (SA during the past month, or SI with SP) ▪ Male: 28.4% ▪ Mean age = 15.6 (SD 1.3) **- Compared groups:** ▪ Bully perpetrators (N = 54) ▪ Non-bullies (N = 379)	SI	Suicidal Ideation Questionnaire - JR	Monitoring	Being a bully perpetrator **In** suicidal inpatients adolescents **Population:** Suicidal inpatients adolescents (SA during the past month, or SI with SP)	Being a bully perpetrator (yes vs. no) as an independent predictor for SI in suicidal inpatients adolescents (CA): E = 6.6, StdE 2.8, p = .02 Independent predictors for SI in suicidal inpatients adolescents (EA): **-** Male gender (vs. female gender): E = -3.3, StdE 1.2, p = .008 **-** Personal history of multiple SA (vs. N/A): E = 3.9, StdE 1.1, p =.0007 Baseline hopelessness (cont.): E = 0.9, StdE 0.1, p<.0001

	Follow-up: 1 year					
Fisher et al., 2012[92] USA	Prospective cohort study (A:E-NE+WC) - **Focus:** bullying victimization as a RF for DSH in early adolescence - **Inclusion period:** 1999-2000 - **Cohort:** 5 yo children members of same-sex twin cohort (N = 2 127 mother reports, N = 2 124 children reports) ▪ Male: 49% ▪ Age = 5 - **Compared groups:** ▪ Frequent bullying (N =237 as reported by mothers, N = 350 as reported by children) ▪ No or isolated incidents (N =1 887 as reported by mothers, N = 1 777 as reported by children) - **Follow-up:** 7 years	DSH	In the previous 6 months, encompassing SA, as reported by mothers	Monitoring	Bullying **In** children aged <12 yo	Exposure to frequent bullying (yes vs. no) as an independent RF for DSH in children (CA): - Bullying reported by mothers: RR = 3.53, 95% CI 2.10-5.93 - Bullying reported by children: RR = 3.33, 95% CI 1.91-5.82 Being the bullied co-twin (vs. non-bullied co-twin as a RF for DSH) in twin children (CA performed to rule out the possible role of familial environment): - Bullying reported by mothers: RR = 4.3, 95% CI 1.3-14.0 - Bullying reported by children: NS
					Population: Bullied children aged <12 yo	Independent RF for DSH in frequently bullied children (bullying reported by mother / by children) (EA): - Socioeconomic deprivation (yes vs. no): OR = 3.44, 95% CI 1.36-8.68 / OR = 2.05, 95% CI 0.74-5.67 - Family history of SA and/or CS (yes vs. no): OR = 22.06, 95% CI 6.15-79.10 / OR = 6.03, 95% CI 1.94-18.73 - Maltreatment PH (yes vs. no): OR = 11.00, 95% CI 4.74-25.5 / OR = 4.71, 95% CI 1.62-13.75 - ADHD diagnosis (yes vs. no): OR = 7.39, 95% CI 2.91-18.78 / NS - Conduct disorder diagnosis (yes vs. no): OR = 6.92, 95% CI 2.79-17.19) / OR = 4.23, 95% CI 1.28-14.02 - Extreme borderline characteristics (yes vs. no): OR = 16.28, 95% CI 6.45-41.05) / OR = 8.89, 95% CI 3.06-25.80 - Clinically significant depression (yes vs. no): OR = 7.5, 95% CI 2.49-22.64 / OR = 3.39, 95% CI 1.13-10.19 - Psychotic symptoms (yes vs. no): OR = 2.88, 95% CI 1.12-7.44 / OR = 3.11, 95% CI 1.09-8.85
Turner et al., 2012[93] USA	Prospective cohort study (A:WC) - **Focus:** recent victimization exposure and SI in adolescents - **Inclusion period:** 2008 - **Cohort:** children and adolescents aged 0-17 yo (N = 1 186) ▪ Male: N/A ▪ Mean age: N/A **Follow-up** ≈ 2 years	SI	Trauma Symptoms Checklist for Children	Monitoring	Recent victimization exposure **In** children and adolescents	Past-year victimization exposure as an independent RF for SI in children and adolescents (CA): - Peer victimization (yes vs. no): OR = 2.35, 95% CI 1.19-4.47 - Maltreatment (yes vs. no): OR = 4.35, 95% CI 2.14-8.32 - Sexual assault (yes vs. no): OR = 3.35, 95% CI 1.34-7.53 - Witness of family violence (yes vs. no): OR = 1.02, 95% CI 0.45-2.23 Polyvictimization (yes vs. no): OR = 5.81, 95% CI 3.09-0.15
					Population: Children and adolescents	Independent RF for SI in children and adolescents (EA): - Presence of SI at baseline (yes vs. no): OR = 5.54, 95% CI 2.33-11.19 or OR = 4.86, 95% CI 2.07-9.92 - Female gender (vs. male gender): NS or OR = 2.27, 95% CI 1.22-4.11 - Parent with stepparent or partner (yes vs. no): OR = 3.06, 95% CI 1.52-5.88 or OR = 3.23, 95% CI 1.68-5.94 - Ever diagnosis of internalizing disorder (yes vs. no): OR = 4.05, 95% CI 1.78-8.26 or OR = 4.19, 95% CI 1.93-8.26 *NB: OR depend on whether the model integrates individual victimizations or polyvictimization*
Zhou et al., 2012[94]	Prospective cohort study (A:E-NE) - **Focus:** the risk behaviours and mental health	DSH	Self-aggressive and identity	Monitoring	Being detained/offend	Being detained/offender (yes vs. no) as an independent RF for DSH in male adolescents (CA):

China	of detained adolescents
	- **Inclusion period:** 2006-2009
	- **Cohort:** male juvenile (N = 476)
	- **Compared groups:**
	  ▪ Offenders who were convicted and serving sentences of at least 12 months (N = 238)
	    • Mean age = 16.6 (SD 1.1)
	  ▪ Age and sex-matched randomly selected male adolescent controls (N = 238)
	    • Mean age = 16.0 (0.9)
	- **Mean follow-up:** 1 year
			problems (Youth Risk Behaviour Survey questionnaire)		er
					In male adolescents
						- At 6 months follow-up: OR = 1.75, 95% CI 0.43-8.84
						- At 1 year follow-up: NS

Björkenstam et al., 2011[95]
Sweden
	<u>Prospective cohort study (A:WC)</u>
	- **Focus:** juvenile delinquency, social background and SC
	- **Inclusion period:** 1972-1981
	- **Cohort:** 20 yo Swedish adolescent residents recorded in the Medical Birth Register (N = 992 881)
	  ▪ Male: 51.2%
	- **Follow-up:** until 2006
		SC	Suicide or death with undetermined intent (ICD-9 and 10)	Swedish Cause of Death Register	Number of convictions
					In adolescents
						<u>Number of convictions as an independent RF for SC in adolescents (CA):</u>
						- In males:
						  ▪ 1 conviction (vs. 0): NS
						  ▪ 2 convictions (vs. 0): NS
						  ▪ 3 convictions (vs. 0): RR = 3.7, 95% CI 1.7-8.0
						- In females:
						  ▪ 1 conviction (vs. 0): NS
						  ▪ 2 convictions (vs. 0): NS
						  ▪ 3 convictions (vs. 0): RR = 3.0, 95% CI 2.3-3.8

					Violent crime **In** convicted adolescents	<u>Violent (vs. non-violent) crime as an independent RF for SC in convicted adolescent (EA):</u> - In males: HR = 1.5, 95% CI 1.0-2.1 - In females: HR = 4.2, 95% CI 3.6-4.9
Fazel et al., 2005[96] **UK**	<u>Historical cohort study (D)</u> - **Focus:** suicide mortality in male prisoners - **Inclusion period:** 1978 - **Cohort:** male prisoners (N = N/A) ▪ Mean age: N/A - **Follow-up:** 25 years	SC	Suicide, deaths from injury undetermined (ICD-9)	UK Office for National Statistics	Being a prisoner **In** men	<u>SC mortality in male prisoners (CA):</u> SMR = 5.1, 95% CI 4.8-5.3.

Blakely et al., 2003[97]
New-Zealand
	<u>Historical cohort study (A:WC)</u>
	- **Focus:** association between unemployment and SC
	- **Inclusion period:** 1991
	- **Cohort:** 18-64 yo respondents to the 1991 New-Zealand census (N = 1 272 015)
	  ▪ Male: N/A
	  ▪ Mean age = N/A
	- **Follow-up:** 3 years
		SC	ICD-9	New-Zealand Mortality Record	Low labour force status
					In 18-64 yo adults
						<u>Low labour force status as an independent RF for SC in 18-64 yo adults (CA):</u>
						- Unemployed (vs. employed): OR = 2.26, 95% CI 1.56-3.28
						- Non-active (vs. employed) : OR = 2.59, 95% CI 0.89-3.55

					Population: 18-64 yo adults	<u>Other Independent RF for SC in 18-64 yo adults (EA):</u> - Being married (yes vs. no): OR = 1.84, 95% CI 1.45-2.34
Family history						
Brent et al., 2015[40]	<u>Prospective cohort study (A:E-NE +WC)</u> - **Focus:** mechanisms and pathways by which	SA	Self-destructive act that	Monitoring	Family history of SA	<u>Cumulative incidences of SA in offspring depending on familial history of SA (CA):</u> - Parents with PH of SA: Cinc. = N/A

USA	SB is transmitted from parent to child
	- **Inclusion period:** 1997-2005
	- **Cohort:** probands with mood disorder (N = 334) and their offspring (N = 701)
	- **Compared groups:**
	  ▪ Probands of suicide non-attempters (N = 143)
	    • Male: 14.0%
	    • Mean age = 45.4 (SD 9.8)
	  ▪ Probands of suicide attempters (N = 191)
	    • Male: 15.7%
	    • Mean age = 44.0 (SD 10.4)
	- **Mean follow-up:** 5.6 years (SD 3.8)
			resulted in potential or actual tissue damage with inferred or explicit intent to die		**In** offspring of mood disorder probands	- Parents without PH of SA: Cinc. = N/A
						  Cumulative incidence curves comparison : p =.004

					Population: Offspring of mood disorder probands	<u>Independent RF for SA in offspring of mood disorder probands (EA):</u> - Offspring baseline mood disorder (yes vs. no): OR = 4.20, 95% CI 1.37-12.86 - Offspring PH of SA (yes vs. no): OR = 5.69, 95% CI 1.94-16.74 - Offspring mood disorder immediately before the onset of an actual SA (yes vs. no): OR = 11.32, 95% CI 2.29-56.00 - Probands lifetime PH of SC (yes vs. no): OR = 4.79, 95% CI 1.75-13.07 **Path analysis:** - Direct effect of probands SA on offspring SA: β = 0.74, p = .008 - Direct effect of offspring mood disorder at each time point on offspring SA: β = 0.30, p = .004 - Indirect effects of previous SA and previous SB on offspring SA via offspring impulsive aggression and mood disorder: β = 0.05, p = .03, and β = 0.05, p = .05, respectively

Brent et al., 2003,[98] USA	<u>Prospective cohort study (A:E-NE)</u>
	- **Focus:** SA in offspring of depressed suicide attempter with siblings concordant for SA
	- **Study period:** N/A
	- **Cohort:** nonpsychotic mood disorder probands who had or had not attempted suicide and their offspring (definition: N/A) (N = 165)
	- **Compared groups:**
	  ▪ Suicide attempters with siblings concordant for SA (N = 19)
	    • Male: 10.5%
	    • Mean age = 43.2 (SD 10.2)
	  ▪ Suicide attempters with siblings discordant for SA (N = 73)
	    • Male: 26.0%
	    • Mean age = 42.2 (SD 11.4)
	  ▪ Nonsuicidal probands whose siblings also had never attempted suicide (N = 73)
	    • Male: 79.5%
	    • Mean age = 31.2 (SD 14.8)
	- **Follow-up:** N/A
		SA	Self-destructive act with at least some intent to die, and at least moderate medical damage requiring medical attention	N/A	Familial loading of SA
					In offspring of mood disorder probands
						<u>Cumulative incidences of SA in offspring depending on familial loading of SA (CA):</u>
						- sibling pair concordant for SA: Cinc. = 0.18, StdE 0.07
						- sibling pair discordant for SA: Cinc. = 0.20, StdE 0.06
						- sibling pair concordant for no SA: Cinc. = 0.05, StdE 0.02
						  Cumulative incidence curves comparison : p =.01

Perinatal risk factors						
Salib & Cortina-Borja, 2006[99] UK	<u>Historic birth cohort study (A:TS)</u> - **Focus:** effect of month of birth on the risk of suicide - **Inclusion period:** 1955-1966 - **Cohort:** any English of Welsh individuals born	SC	Suicides and undetermined injury deaths (ICD-9)	Office for National Statistics	Month of birth **In** general population	<u>Month of birth as an independent RF for SC in the general population (CA):</u> Excess of suicides in early summer births and deficit in autumn: average increase in risk of SC between the trough (October) and the peak (May) of the seasonal component: +17.9% (95% CI 13.0-21.8) ▪ Male: +29.6% (95% CI 8.0-50.7)

	between 1955 and 1966 who reached at least 16 yo (N = 11 035 365) ▪ Male: N/A ▪ Mean age = N/A - **Follow-up:** until 2001					▪ Female: +13.7% (95% CI 5.2-22.2)
Riordan et al., 2006[100] **Scotland**	Historical birth cohort study (A:WC) - **Focus:** influence of perinatal circumstances on risk of SC - **Inclusion period:** 1969-1986 - **Cohort:** births registered in the Scottish Morbidity Record for maternities (N = 1 061 830) ▪ Male: 51.4 % - **Follow-up:** until 2006	SC	ICD-9 and 10	Scotland Death Record	Perinatal circumstances **In** general population	Independent perinatal RF for SC in the general population (pseudo-CA): - Male gender (vs. female gender): HR = 3.82, 95% CI 3.36-4.34 - Birthweight (low [<2500g] vs. normal [3250-3749g]): HR = 1.35, 95% CI 1.05-1.72 - Younger maternal age: ▪ 15-19 yo (vs. 25-29 yo): HR = 2.00, 95% CI 1.66-2.41 ▪ 20-24 yo (vs. 25-29 yo): HR = 1.40, 95% CI 1.23-1.60 - Maternal parity: ▪ 1 (vs. 0): HR = 1.61, 95% CI 1.41-1.84 ▪ 2 (vs. 0): HR = 1.62, 95% CI 1.36-1.93 ▪ ≥3 (vs. 0): HR = 276, 95% CI 2.29-3.31 - Parental occupation: ▪ Skilled occupation (vs. professional occupation): HR = 1.35, 95% CI 1.15-1.58 ▪ Unskilled occupation (vs. professional occupation): HR = 1.69, 95% CI 1.42-2.03
Mittendorfer & Wasserman, 2004[101] **Sweden**	Historical birth cohort study (A:WC) - **Focus:** associations between fetal growth, obstetric complications, and the mother's psychosocial and socioeconomic situation and the risk of SC and SA in early adulthood in the offspring - **Inclusion period:** 1973-1980 - **Cohort:** births with birthweight ranging 800-6000g and length ranging 39-60cm (N = 713 370) recorded in the Sweden Medical Birth Register ▪ Male: 51.4% - **Follow-up:** until 1999	SA SC	Determined and undetermined SA (ICD-8 to 10) Determined and undetermined SC (ICD-8 to 10)	Swedish Cause of Death Register Swedish Inpatient Care Register	Perinatal circumstances and mother's socioeconomic status **In** general population	Independent perinatal predictors for SC in the general population (CA): - Birthweight: ▪ 800g-2 499g (vs. 3 250g-3 749g): HR = 2.23, 95% CI 1.43-3.46 **Overall effect: p<.0001** - Mother's age ≤19 yo (vs. 20-29 yo): HR = 2.30, 95% CI 1.64-3.22 Independent perinatal predictors for SA in the general population (CA): - Birth length: ▪ 39-47cm (vs. 50-51cm): HR = 1.29, 95% CI 1.18-1.41 ▪ 48-49cm (vs. 50-51cm): HR = 1.13, 95% CI 1.06-1.20 ▪ 52-53cm (vs. 50-51cm): HR = 0.88, 95% CI 0.83-0.95 ▪ 54-60cm (vs. 50-51cm): HR = 0.83, 95% CI 0.74-0.93 **Overall effect: p<.0001** - Parity: ▪ 1 (vs. 2-3): HR = 0.86, 95% CI 0.82-0.91 ▪ 4-9 (vs. 2-3): HR = 1.79, 95% CI 1.62-1.97 **Overall effect: p<.0001** - Mother's education: ▪ ≤9 years (vs. 10-12 years): HR = 1.36, 95% CI 1.27-1.46 ▪ ≥13 years (vs. 10-12 years): HR = 1.24, 95% CI 1.16-1.32 **Overall effect: p<.0001** - Mother's age: ▪ ≤19 yo (vs. 20-29 yo): HR = 2.09, 95% CI 1.89-2.32 ▪ >29 yo (vs. 20-29 yo): HR = 0.76, 95% CI 0.72-0.81 **Overall effect: p<.0001**

Psychological factors						
Anestis et al., 2014[37] USA	Meta-analysis (A:RFF/SumD) - **Focus:** impulsivity as a RF for SA and SC - **Include:** prospective studies (N = 7), cross-sectional studies (N = 57) and psychological autopsies (N = 7) (total: N = 70 studies) - **Population:** no specification (N = 17 770)	SB	SC + SA (unclear)	Depending on studies	Trait impulsivity **In the general population**	Trait impulsivity as an independent RF for SB in the general population : - In cross-sectional studies: g = 0.37, 95% CI 0.29- 0.46 - In prospective studies: g = 0.09, 95% CI 0.02-0.17 - In psychological autopsies: g = 0.30, 95% CI 0.13-0.72 - In studies where one effect was selected from any study with more than one effect reported: g = 0.34, 95% CI 0.24-0.40

Kleiman et al., 2014[102] USA	Prospective cohort study (A:WC)
	 - **Focus:** validity of the weakest link theory to account for SI vs. traditional interpersonal or hopelessness theories
	 - **Inclusion period:** N/A
	 - **Cohort:** young adults (N = 171)
	     ■ Male: 30%
	     ■ Mean age = 20.7 (SD 3.8)
	 - **Mean follow-up:** 43.3 days (SD 11.7)
		SI	Beck Suicide Scale	Monitoring	Weakest link among interpersonal and hopelessness theories' components in interaction with stress **In** young adults	Weakest link as an independent predictor for SI in young adults (CA):
						 - Weakest link only: NS
						 - Weakest link x stress interaction: E = 0.19, 95% CI 0.08-0.30, DIC = 796.94
						 Comparison with other models:
						     ■ Interpersonal Psychological Theory x stress model: E = 0.57, 95% CI 0.19-0.95, DIC = 829.67
						     ■ Hopelessness Theory x stress model: NS, DIC = 787.02

Pfeiffer et al., 2014[17] USA	Prospective cohort study (A:WC)
	 - **Focus:** RF related to the Interpersonal Theory of Suicide for SI in depressed veterans
	 - **Inclusion period:** N/A
	 - **Cohort:** Veterans Health Administration patients treated for a depression (diagnosis of major depressive disorder, dysthymic disorder, bipolar II disorder or depression non otherwise specified – definition: N/A)
	     ■ No baseline SI (N = 249)
	         • Male: 72.7%
	         • Mean age = N/A
	     ■ Passive SI at baseline (N = 116)
	         • Male: 85.0%
	         • Mean age = N/A
	     ■ Active SI at baseline (N = 78)
	         • Male: 94.7%
	         • Mean age = N/A
	 - **Follow-up:** 3 months
		SI	Active vs. passive SI (Beck Depression Inventory II and Beck Suicide Scale)	Monitoring	Components of the Interpersonal Theory of Suicide construct **In** depressed veterans	Independent predictors for SI in relation to the Interpersonal Theory of Suicide in depressed veterans (CA):
						 - **Passive SI:**
						     ■ Burdensomeness: E = 0.13, StdE 0.05, p =.01
						     ■ Hopelessness: E = 0.11, StdE 0.04, p<.01
						 - **Active SI:** no significant independent RF found

O'Connor et al., 2013[48] UK	Prospective cohort study (A:WC) - **Focus:** defeat and entrapment psychological processes as RF for repeated SB - **Inclusion period:** N/A - **Cohort:** patients who were seen by the liaison psychiatry service the morning after presenting at a hospital following a SA (N= 61) ■ Male: 42.6%	DSH	DSH leading to hospital admission (ICD)	Information Services Division of the National Health Service Scotland	Defeat and entrapment **In** at risk patients (discharged after SA)	Defeat and entrapment as an independent predictor for SA repetition or SC after SA (CA): E = 0.59, StdE N/A, p<.05
		SA	SA leading to hospital admission, encompassing	Medical records	**Population:** Patients with PH of SA	Independent predictor of SA repetition or SC after SA (EA): - Number of previous SA: E = 0.17, StdE N/A, p<.05

	▪ Mean age = 35.6 (SD 13.2) - **Follow-up:** 4 years		SC			
Miranda et al., 2012[18] **USA**	Prospective cohort study (A:E-NE+WC) - **Focus:** cognitive inflexibility as a predictor of SI among young adults with PH of SA - **Inclusion period:** N/A - **Cohort:** young adults aged 18-22 yo (N = 45) ▪ Male: 78% ▪ Mean age = 18.3 (SD 0.7) - **Compared groups:** ▪ PH of SA (N = 13) ▪ No PH of SA (N = 32) - **Follow-up:** 6 months	SI	Beck Scale for Suicide Ideation	Monitoring	Hopelessness and cognitive inflexibility in interaction with PH of SA **In** young adults	Independent predictor for SI in young adults (CA): - Cognitive inflexibility (CA): NS - Hopelessness (EA): E = 0.24, StdE 0.07, p<0.05 Cognitive inflexibility x PH of SA interaction as an independent predictor for SI in young adults (CA): E = 0.22, StdE 0.54, p<0.01
					Cognitive inflexibility **In** young adults with PH of SA	Cognitive inflexibility as an independent predictor for SI in young adults with PH of SA (CA): E = 0.27, StdE N/A, p = .17
Soloff & Chiappetta, 2012[51] **USA**	Prospective cohort study (A:WC) - **Focus:** RF for SB in borderline personality disorder - **Inclusion period:** N/A - **Cohort:** patients with borderline personality disorder (Revised Diagnostic Interview for Borderlines) (N = 90) ▪ Male: 16.7% ▪ Mean age = 29.1 (SD 8.3) - **Follow-up:** 6 years	SB	self-injurious behaviour with intent to die	Family contact and US Social Security Death Index SC ascertained from death certificates	Goal engagement/dis engagement **In** Self-harmers	Goal engagement/disengagement as independent predictors for DSH repetition after an episode of DSH (CA): - Goal engagement: OR = 0.48, 95% CI 0.29-0.78 - Age x goal disengagement x goal engagement interaction: OR = 0.91, 95% CI 0.86-0.96
Multiple RF assessment						
Stanford et al., 2017[103] **Australia**	Prospective cohort study (A:E-NE) - **Focus:** predictors and long-term outcomes of DSH in women - **Inclusion period:** 2003 - **Cohort:** 25-30 yo women born between 1973 and 1978 ▪ PH of DSH within the 6 previous months (N = 5 534) • Mean age: N/A ▪ No PH of DSH within the 6 previous months (N = 192) • Mean age: N/A - **Follow-up:** 3 years	DSH	"In the past 6months have you ever deliberately hurt yourself or done anything that you know might have harmed or even killed you?"	Monitoring	**Population:** Young adult women without recent episode of DSH	Independent RF for DSH in young adult women without recent episode of DSH (EA): - Lifetime PH of physical abuse (yes vs. no): OR = 2.49, 95% CI 2.00-2.98 - Lifetime PH of sexual abuse (yes vs. no): OR = 1.73, 95% CI 1.23-2.23 - Born overseas (vs. Australian-born): OR = 2.60, 95% CI 1.97-3.24
					Population: Young adult women with recent episode of DSH	Independent RF for DSH in young adult women with recent episode of DSH (EA): - Number of dieting behaviours (cont.): OR = 1.20, 95% CI 1.02-1.41 - Tiredness of life (yes vs. no): OR = 2.29, 95% CI 1.15-4.5 - Stress (cont.): OR = 1.86, 95% CI 1.15-3.01
Cluver et al., 2015[104] **South Africa**	Prospective cohort study (A:WC) - **Focus:** adverse childhood experiences as a RF for suicidality in South Africa - **Inclusion period:** 2009-2010 - **Cohort:** children and adolescents aged 10-18 yo from urban and rural health districts with >30% antenatal HIV- prevalence in South	SA	MINI International Psychiatric Interview for children and adolescents suicidality scale	Monitoring	**Population:** Adolescents from highly prevalent HIV areas	Independent RF for SA in adolescents from highly prevalent HIV areas (EA): - Age (cont.): OR = 1.17, 95% CI 1.06-1.28 - Female gender (vs. male gender): OR = 1.62, 95% CI 1.05-2.28 - Personal history of SA at baseline (yes vs. no): OR = 8.10, 95% CI 4.81-12.66 Independent RF for suicide plan in adolescents from highly prevalent HIV areas (EA): - Cumulative exposure to adverse childhood experience (cont.): OR = 1.28, 95% CI 1.13-1.45

	Africa (N = 3 401) ▪ Male: 44.4% ▪ Mean age = 14.7 (SD 2.2) - **Follow-up:** 1 year	SP	MINI International Psychiatric Interview for children and adolescents suicidality scale	Monitoring		- Age (cont.): OR = 1.19, 95% CI 1.10-1.29 - Female gender (vs. male gender): OR = 1.19, 95% CI 1.10-1.29 - Informal housing (yes vs. no): OR = 1.54, 95% CI 1.02-2.33 - Personal history of SA at baseline (yes vs. no): OR = 3.64, 95% CI 2.33-5.70 <u>Independent RF for SI in adolescents from highly prevalent HIV areas (EA):</u> - Cumulative exposure to adverse childhood experience (cont.): OR = 1.20, 95% CI 1.09-1.33 - Age (cont.): OR = 1.16, 95% CI 1.09-1.24 - Female gender (vs. male gender): OR = 1.39, 95% CI 1.05-1.83 - Personal history of SA at baseline (yes vs. no): 3.23, 95% CI 2.26-4.62
Darke et al., 2015[105] Australia	<u>Prospective cohort study (A:WC)</u> - **Focus:** patterns and correlates of SA amongst heroin users - **Inclusion period:** 2001-2002 - **Cohort:** heroin users followed for methadone/buprenorphine maintenance, drug-free residential rehabilitation or detoxification (N = 431) ▪ Male: 64.5% ▪ Mean age = 29.0 (SD 7.6) - **Follow-up:** 11 years	SA SI	N/A Composite International Diagnostic Interview 2.1	Monitoring Monitoring	**Population:** Heroin users	<u>Independent RF for recent SA and/or current SI in heroin users (EA):</u> - Psychopathology (yes vs. no): OR = 1.68, 95% CI 1.42-2.00 - Major depression (yes vs. no): OR = 1.83, 95% CI 1.55-2.16 - SA prior to preceding 12 months (yes vs. no): OR = 1.44, 95% CI 1.23-1.68 - Mean number of drug classes used in the past month (cont.): OR 1.39, CI 1.13-1.72
Martiniuk et al., 2015[106] Australia	<u>Prospective cohort study (A:WC)</u> - **Focus:** RF for repetitive DSH in female and male youth - **Inclusion period:** 2003-2004 - **Cohort:** random sample from a baseline cohort of 17–24 yo participants who had a first-stage provisional driver license and lived in New South Wales (N = 2 991) ▪ Male: 42.0% ▪ Mean age = N/A **Follow-up:** 12-18 months	DSH	Modified question from the Beck Suicide Inventory	Monitoring	**Population:** Adolescents and young adults with no personal history of DSH **Population:** Adolescents and young adults with personal history of DSH	<u>Independent RF for first-episode DSH in adolescents and young adults with no personal history of DSH (EA):</u> Psychological distress (high vs. low): OR = 4.97, 95% CI 1.08-22.9 <u>Independent RF for first-episode DSH in adolescents and young adults with no personal history of DSH (EA):</u> - Psychological distress (high vs. low): OR = 3.55, 95% CI 2.06-6.14 - Alcohol use disorder (high severity vs. low severity): OR = 23.6, 95% CI 3.64-153
Angst et al., 2014[42] Switzerland	<u>Prospective cohort study (A:WC)</u> - **Focus:** suicidality in the prospective Zurich study - **Inclusion period:** 1978 - **Cohort:** 19 yo men and 20 yo women, representative of the canton of Zurich (N = 372) ▪ Male: 46.2% - **Follow-up:** until 2008	SA SI	N/A Symptom Checklist-90R	Monitoring Monitoring	**Population:** Young adults	<u>Independent RF for SA in young women (EA):</u> - Broken home (yes vs. no): OR = 10.19, 95% CI 2.00-51.92 - Sexual abuse/violence (yes vs. no): OR = 7.94, 95% CI 1.97-31.95 - Depressive personality (yes vs. no): OR = 4.82, 95% CI 0.75-31.13 - Social support (low vs. high): OR = 4.30, 95% CI 0.71-25.99 - Education level (low vs. high): OR = 5.39, 95%CI 1.22-23.79 - Sense of mastery (low vs. high): OR = 4.68, 95% CI 1.50-14.64 <u>Independent RF for SI in young adults (EA):</u> - **Men:** ▪ Restless in class (yes vs. no): OR = 2.52, 95% CI 1.06-5.99 - **Women:** ▪ Sense of mastery (low vs. high): OR = 3.13, 95% CI 1.30-7.53

Study	Study characteristics	Outcome	Measure	Method	Population	Results
Brabant et al., 2014[107] **Canada**	<u>Prospective cohort study (A:WC)</u> **- Focus:** RF for SI in female adolescents with PH of childhood sexual abuse **- Inclusion period:** N/A **- Cohort:** female teenagers aged 12-17 yo who have survived a child sexual abuse (N = 77) ▪ Mean age =14.7 (SD N/A) **- Follow-up:** 12 months (mean = 1 040.0 days, SD 194.7)	SI	Scale for Suicide Ideation	Monitoring	**Population:** Female teenagers with PH of childhood sexual abuse	<u>Independent predictors for SI in female adolescents who have survived a childhood sexual abuse (EA):</u> **-** Age (cont.): OR = 0.33, 95% CI 0.14-0.78 **-** Depression (yes vs. no): OR = 2.00, 95% CI 1.06-3.79 **-** Post-traumatic stress symptoms (yes vs. no): OR = 2.81, 95% CI 1.38-5.72

Chang et al., 2015[52] **Hong Kong**	<u>Historical cohort study (A:WC)</u>
	- Focus: risk factors for suicidal behaviour in young people presenting with first-episode psychosis
	- Inclusion period: 2001-2003
	- Cohort: individuals aged 15-25 yo experiencing their first-episode psychosis (ICD-10) (N = 700)
	   ▪ Male: 51.4%
	   ▪ Mean age = 21.2 (SD 3.4)
	Follow-up: 3 years
		SA	Act of purposeful self-harm with expressed suicidal intent	Systematic medical file review	**Population:** Adolescents and young adults with first-episode psychosis	<u>Independent RF for SA in adolescents and young adults with first-episode psychosis (EA):</u>
						- PH of SA (yes vs. no): OR = 2.64, 95% CI 1.38-5.03
						- PH of substance use: OR = 2.21, 95% CI 1.04-4.72
						<u>Independent PF for SA in adolescents and young adults with first-episode psychosis (EA):</u>
						- Social and occupational functioning (cont.): OR = 0.97, 95% CI 0.95-0.98

Finley et al., 2015[108] **USA**	<u>Historical cohort study (A:WC)</u>
	- Focus: polytrauma clinical triad and suicide-related behaviour among US Veterans who served in Iraq and Afghanistan
	- Inclusion period: 2009
	- Cohort: Operation Enduring Freedom in Afghanistan and Operation Iraqi Freedom in Iraq veterans who received Veterans Affairs inpatient or outpatient care (N = 211 652)
	   ▪ Male: 86.4%
	   ▪ Mean age = N/A
	- Mean follow-up: 3 years
		SA	ICD-9-CM	US Veterans Affairs inpatient and outpatient data	**Population:** Veterans	<u>Independent RF for SI only / SA only / SI and SA in veterans (EA):</u>
						- Age of 18-25 yo (vs. 24-40 yo): OR = 1.4, 95% CI 1.2-1.6 / OR = 1.5, 95% CI 1.1- 1.9 / OR = 1.8, 95% CI 1.4-2.4
						- Guard or Reserve (vs. active duty): OR = 1.2, 95% CI 1.1-1.2 / PF / NS
						- Psychiatric conditions:
						   ▪ Bipolar disorder (yes vs. no): OR = 1.7, 95% CI 1.6-1.9 / OR =1.8, 95% CI 1.5-2.3 / OR 2.2, 95% CI 1.7-2.7
						   ▪ Anxiety disorder (yes vs. no): OR = 1.3, 95% CI 1.2-1.4 / OR = 1.3, 95% CI 1.1-1.5 / OR = 1.7, 95% CI 1.4-2.1
						   ▪ Schizophrenia (yes vs. no): OR = 2.4, 95% CI 2.0-3.0 / NS / OR = 2.1, 95% CI 1.3-3.3
						   ▪ Personal history of psychiatric hospitalization (yes vs. no): OR = 1.9, 95% CI 1.6-2.1 / NS / OR = 1.5, 95% CI 1.2-2.1
						   ▪ Personal history of suicide-related behaviour (yes vs. no): OR = 3.5, 95% CI 3.1-4.41/ OR = 10.0, 95% CI 7.7-13.2 / OR = 6.6, 95 % CI 5.0-8.6
						   ▪ Post-traumatic stress disorder (vs. no post-traumatic stress disorder, pain, depression, substance abuse or traumatic brain injury): OR = 2.3, 95% CI 2.0-2.6 / OR = 2.0, 95% CI 1.4, 2.9 / OR = 1.8, 95% CI 1.4, 2.91.2-2.8
						   ▪ Depression (vs. no post-traumatic stress disorder, pain, depression, substance abuse or traumatic brain injury): OR = 2.8, 95% CI 2.4-3.4 / OR = 2.5, 95% CI 1.7-3.9 / OR = 3.2, 95% CI 2.1-5.0
						   ▪ Substance abuse (vs. no post-traumatic stress disorder, pain, depression, substance abuse or traumatic brain injury): OR = 3.6, 95% CI 2.9-4.5 / OR = 2.7, 95% CI 1.5- 4.8 / OR = 3.7, 95% CI 2.1-6.5
						<u>Independent PF for SI only / SA only / SI and SA only in veterans (EA):</u>

						- Age:
						  ■ 41-55 yo (vs. 24-40 yo): OR = 0.7, 95% CI 0.6-0.8 / OR = 0.6, 95% CI 0.5-0.8 / OR = 0.7, 95% CI 0.5-0.9
						  ■ >55 yo (vs. 24-40 yo): OR = 0.4, 95% CI 0.3-0.5 / OR = 0.5, 95% CI 0.3-0.8 / OR = 0.3, 95% CI 0.2-0.7
						- Female (vs. male): OR = 0.8, 95% CI 0.7-0.9 / NS / NS
						- Guard or Reserve (vs. active duty): RF / OR = 0.8, 95% CI 0.7-0.9) / RF
						- Officer or warrant officer (vs. enlisted) : OR = 0.5, 95% CI 0.4-0.6 / OR = 0.5, 95% CI 0.3-0.8 / OR = 0.5, 95% CI 0.3-0.9

Feodor Nilsson et al., 2014[109] Denmark	Prospective cohort study (D+A:WC)
	- **Focus:** SC and unintentional injury mortality among homeless people
	- **Inclusion period:** 1999
	- **Cohort:** individuals recorded in the Danish Homeless Register (N = 32 010)
	  ■ Male: 70.5%
	  ■ Mean age = N/A
	Mean follow-up: until 2008
		SC	ICD-10	Danish Cause of Death Register	**Population:** Homeless individuals	<u>Independent RF for SC in male / female homeless individuals (pseudo-EA):</u>
						- PH of psychiatric contact (yes vs. no): HR = 2.5, 95% CI 1.7-3.6 / HR = 8.3, 95% CI 2.5-27.3
						- PH of specific psychiatric diagnoses (vs. no personal history of psychiatric contact):
						  ■ Schizophrenia spectrum disorders : HR = 3.1, 95% CI 2.0-4.9 / HR = 15.5, 95% CI 4.5-54.0
						  ■ Alcohol use disorders: HR = 2.5, 95% CI 1.7-3.7 / HR = 8.2, 95% CI 2.4-28.7
						  ■ Drug use disorders: HR = 2.7, 95% CI 1.8-4.1 / HR = 8.3, 95% CI 2.3-29.4
						  ■ Affective disorders : HR = 3.0, 95% CI 2.0-4.6 / HR = 10.7, 95% CI 3.1-37.0
						  ■ Personality disorders: HR = 2.3, 95% CI 1.5-3.6 / HR = 11.9, 95% CI 3.5-40.7
						<u>Substance use disorders (vs. no substance use) as an independent RF for SC in male / female homeless individuals (pseudo-CA):</u>
						- Alcohol: HR = 1.7, 95% CI 1.2-2.4 / NS
						- Opioids: HR = 2.0, 95% CI 1.2-3.4 / NS
						- Other drugs: HR = 1.9, 95% CI 1.2-2.9 / NS
						<u>Psychiatric contact as an independent RF for SC in male / female homeless individuals (pseudo-CA):</u>
						- **Types of psychiatric contact (vs. no personal history of psychiatric contact):**
						  ■ Ever inpatient : HR = 1.5, 95% CI 1.8-3.3 / HR = 8.3, 95% CI 4.0-17.0
						  ■ Emergency room only: NS / HR = 6.5, 95% CI 2.5–17.3
						- **Psychiatric inpatient days (vs. 0):**
						  ■ 3-10: HR = 2.6, 95% CI 1.7-3.9 / NS
						  >10: HR = 2.3, 95% CI 1.7-3.2 / HR = 5.8, 95% CI 3.2-10.5

Tuisku et al., 2014[41] Finland	Prospective cohort study (A:WC)
	- **Focus:** predictors and PF of future NSSI and SA among depressed adolescent outpatients
	- **Inclusion period:** 1998-2001
	- **Cohort:** 13-19 yo adolescent outpatients with a current diagnosis of depressive mood disorder (DSM-IV) (N = 137)
	  ■ Male: N/A
	  ■ Mean age = N/A
	Follow-up ≈ 8 years
		SA	Schedule for Affective Disorders and Schizophrenia for School-Aged Children-Present and Lifetime	Monitoring	**Population:** Adolescents with depressive disorder	<u>Independent RF for SA in depressive disorder adolescents (EA):</u>
						- **At 1 year follow-up:**
						  ■ Alcohol use (cont.): OR = 1.13, 95% CI 1.04-1.23
						- **Within 1-8 years follow-up:**
						  ■ Alcohol use (cont.): OR = 1.22, 95% CI 1.06-1.40
						<u>Independent PF for SA in depressive disorder adolescents (EA):</u>
						- **At 1 year follow-up:**
						  ■ Perceived social support from friends (cont.): OR = 0.83, 95% CI 0.70-0.98
						- **Within 1-8 years follow-up:**
						  ■ Perceived social support from friends (cont.): OR = 0.78, 95% CI 0.64-0.95

Victor & Klonsky 2014[38]	Meta-analysis (A:PopF/SumD) - **Focus:** RF for SA among self-injurers - **Include:** empirical studies comparing any	SA	SA should have been assessed	Depending on studies	**Population:** Patients with PH of NSSI	<u>Independent RF for SA in self-injurers (effect size converted to Cohen's d):</u> - SI (cont. and yes vs. no): d = 1.01, 95% CI 7-1.32 - Number NSSI methods (cont.): d = 0.59, 95% CI 0.23-0.96

Canada	variable between self-injurers with vs. without a PH of SA (N = 40 papers, 43 samples)
	- **Population:** self-injurers
	  ▪ Patients with PH of NSSI
	  ▪ Patient with PH of both NSSI and SA
			separately from NSSI. Effort was made to distinguish DSH, NSSI and SA			- NSSI frequency (cont.): d = 0.54, 95% CI 0.37-0.71
						- Hopelessness (cont.): d = 0.55, 95% CI 0.43-0.66
						- Borderline personality disorder (cont. and yes vs. no): d = 0.53, 95% CI 0.40-0.67
						- Impulsivity (cont.): d = 0.45, 95% CI 0.36-0.55
						- Post-traumatic stress disorder (yes vs. no): d = 0.35, 95% CI 0.20-0.51
						- PH of cutting (yes vs. no): d = 0.35, 95% CI 0.16-0.53
						- Depression (cont): d = 0.34, 95% CI 0.23-0 .45
						- Sexual abuse (yes vs. no): d = 0.26, 95% CI 0.14-0 .39
						- Female gender (vs. male gender): d = 0 .17, 95% CI 0.09-0.24
						- Drug use (yes vs. no): d = 0.17, 95% CI 0.06-0.27
						- Physical abuse (yes vs. no): d = 0.17, 95% CI 0.05- 0.29
						- Anxiety (cont. and yes vs no): d = 0.14, 95% CI 0.01-0.27

Ando et al., 2013[46]
Japan
	Prospective cohort study (A:WC)
	- **Focus:** SB and related RF after an episode of self-poisoning
	- **Inclusion period:** 2008-2009
	- **Cohort:** patients who were admitted to the emergency department for drug overdose (N = 66, probable attrition bias)
	  ▪ Male: 26.3%
	  ▪ Mean age = 33.0 (SD 11.5)
	- **Mean follow-up:** 1 year
		SA	N/A	Monitoring	**Population:** Patients after a SA	Independent RF for SA after self-poisoning (EA):
						- Diagnosis of personality disorder: OR = 8.20, 95% CI 0.99-68.01
						- Suicide intent at recovery (denial of intent vs. recognition of death thought but no suicidal intent): OR = 4.82, 95% CI 1.27-18.34
						- Previous PH of SA (yes vs. no): OR = 4.02, 95% CI 0.69-22.23

Dunn et al., 2013[110]
USA
	Prospective cohort study (A:WC)
	- **Focus:** developmental timing of child maltreatment and symptoms of depression and SI in young adulthood
	- **Inclusion period:** 1994-1995
	- **Cohort:** adolescents in grades 7 through 12 (N = 15 701)
	  ▪ Male: 50.9%
	  ▪ Mean age = 16.0 (SD 0.1)
	- **Mean follow-up:** 15 years
		SI	Youth Risk Behaviour Surveillance system	Monitoring	**Population:** Adolescents	Physical abuse by timing of exposition (vs. unexposed) as independent RF for SC in adolescents (CA):
						- Crude abuse age onset:
						  ▪ 0-5 yo: OR = 2.76, 95% CI 2.11-2.46
						  ▪ 6-10 yo: OR = 1.68, 95% CI 4.52-1.40
						  ▪ 11-17 yo: OR = 3.19, 95% CI 1.82-3.33
						- Refined abuse age onset:
						  ▪ 0-2 yo: OR = 2.53, 95% CI 0.88-7.57
						  ▪ 3-5 yo: OR = 2;80, 95% CI 1.73-4.56
						  ▪ 6-8 yo: OR = 2.02, 95% CI 1.18-3.46
						  ▪ 9-10 yo: OR = 2.28, 95% CI 1.28-4.05
						  ▪ 11-13 yo: OR = 2.62, 95% CI 1.78-3.86
						  ▪ 14-17 yo: OR = 2.36, 95% CI 1.62-3.42
						Sexual abuse by timing of exposition (vs. unexposed) as independent RF for SC in adolescents (CA):
						- Crude abuse age onset:
						  ▪ 0-5 yo: 3.94, 95% CI 2.21-7.04
						  ▪ 6-10 yo: NS
						  ▪ 11-17 yo: NS
						- Refined abuse age onset:
						  ▪ 0-2 yo: OR = 5.17, 95% CI 1.74-15.40
						  ▪ 3-5 yo: OR = 3.64, 95% CI 1.96-6.78
						  ▪ 6-8 yo: OR = NS

						▪ 9-10 yo: OR = NS ▪ 11-13 yo: OR = NS ▪ 14-17 yo: OR = NS

Hawton et al., 2013[32] UK	Meta-analysis (A:PopF/SumD)
	- **Focus:** RF for SC in patients with depression
	- **Include:** cohort and case-control studies (N = 28 reports)
	- **Population:** patients with diagnosis of depressive disorder or recurrent depressive disorder (ICD-10) or major depressive disorder (DSM-IV)
		SC	N/A	Depending on studies	**Population:** Depression patients	Independent RF for SC in depression patients (EA):
						- **Socio-demographic characteristics:**
						  ▪ Male gender (vs. female gender): OR = 1.24, 95% CI 0.48-3.17
						- **Family and personal psychiatric history:**
						  ▪ PH of SA or DSH (yes vs. no): OR = 4.84, 95% CI 3.26-7.20
						- **Characteristics of disorder:**
						  ▪ Severity of the depressive pathology (higher vs. lower): OR = 2.20, 95% CI 1.05-4.60
						  ▪ Hopelessness (yes vs. no): OR = 2.20, 95% CI 1.49-3.23
						- **Comorbid disorders and behaviours:**
						  ▪ Any current substance misuse (yes or no): OR = 2.17, 95% CI 1.77-2.66
						  ▪ Alcohol current misuse (yes or no): OR = 2.47, 95% CI 1.40-4.36
						  ▪ Drug current misuse (yes or no): OR = 2.66, 95% CI 1.37-5.20
						  ▪ Presence of symptoms of anxiety disorder (yes vs. no): OR = 1.59, 95% CI 1.03-2.45
						  ▪ Diagnosis of axis II disorder (yes vs. no): OR = 4.95, 95% CI 1.99-12.33

Jamieson et al., 2013[111] Australia	Prospective birth cohort study (A:WC) - **Focus:** oral health and social and emotional well-being in a birth cohort of Aboriginal Australian young adults - **Inclusion period:** 1987-1990 - **Cohort:** live born singletons aboriginal babies (N = 336) ▪ Male: N/A **Mean follow-up:** 18 years	SI	"Have you wished you were dead? Felt like hurting yourself? Have you felt like killing yourself?"	Monitoring	**Population:** Aboriginal young adults	Independent RF for SI in Aboriginal young adults (EA): - Female gender (vs. male gender): E = 0.49, 95% CI 0.25-0.74 - Mean number of dental disease (cont.): E = 0.034, 95% CI 0.01-0.06 - Treated unfairly or discriminated against because being Aboriginal (little bit, fair bit, lots vs. not really): E = 0.34, 95% CI 0.08-0.60

Lyons-Ruth et al., 2013[112] USA	Prospective cohort study (A:WC)
	- **Focus:** RF for SA in an at-risk treated sample of patients with borderline personality disorder
	- **Inclusion period:** 2003-2006
	- **Cohort:** 18-60 yo patients with a diagnosis of borderline personality disorder (DSM-IV) randomized to 1 year of either dialectical behavioural therapy treatment (N = 90) or general psychiatric management treatment (N = 90) with at least 2 episodes of suicidal or non-suicidal self-injury in the past 5 years, and at least 1 episode occurring in the past 3 months (total: N = 180)
	  ▪ Male: 13.9%
	  ▪ Mean age = 30.4 (SD 9.9)
	- **Follow-up:** 36 months
		SA	Suicidal behaviour with ambivalent, serious, or extreme intent (Suicide Attempt Self-Injury Interview II)	Monitoring	**Population:** At-risk borderline personality disorder patients (at least 2 episodes of suicidal or non-suicidal self-injury in the past 5 years, and at least 1 episode occurring in the past 3 months)	Independent RF for SA during the 1 year treatment phase in at-risk borderline personality disorder patients (EA):
						- Sexual abuse (cont.): OR = 1.12, 95% CI 1.06-1.19
						- Number of past SA at baseline (cont. log): OR = 1.43, 95% CI 1.12-1.82
						Independent RF for SA after the treatment phase in at-risk borderline personality disorder patients (EA):
						- Sexual abuse (cont.): OR = 1.14, 95% CI 1.05-1.24
						- Number of previous hospital admissions at baseline (cont.): OR = 3.34, 95% CI 1.06-10.57
						- Number of past SA at baseline (cont. log): OR = 1.88, 95% CI 1.34-2.64

Yen et al., 2013[113] USA	Prospective cohort study (A:WC)
	- **Focus:** predictors of suicidality in already at-risk adolescents
	- **Inclusion/study period:** N/A
	- **Cohort:** adolescents that been recently admitted to an inpatient psychiatric unit for elevated suicide risk (e.g. recent SA, self-injury with SI, or SI only) (N = 104)
	  ■ Male ≈ 34.3-37.85%
	  ■ Mean age ≈ 15.2-15.3 (SD 1.4)
	- **Follow-up:** 6 months
		SE	SA (including aborted and interrupted SA) or any emergency intervention (e.g. hospitalization, emergency rescue) to prevent a SA	Monitoring	**Population:** At-risk adolescents (recent inpatient admission for elevated risk of SC)	Independent RF for SE in at-risk adolescents (EA):
						- Black race (vs. non-black race): HR = 3.08, 95% CI 1.06-8.90
						- Childhood sexual abuse (yes vs. no): HR = 4.52, 95% CI 1.78-11.47
						- Aggression Questionnaire score (high vs. low): HR = 1.03, 95% CI 1.01-1.05
						Independent PF for SE in at-risk adolescents (EA):
						- Affective Intensity Questionnaire score (high vs. low): HR = 0.55, 95% CI 0.32-0.94

Bergen et al., 2012[45] UK	Prospective cohort study (A:WC)
	- **Focus:** RF for SC and accidental death from an individual's last episode of DSH
	- **Inclusion period:** 2000-2007
	- **Cohort:** patients who presented with DSH to general hospital emergency departments (N = 30 202)
	  ■ Male: 41.4%
	  ■ Media age = 27.0 (IQR 17.0-37.0)
	- **Follow-up:** until 2010 (range: 3-11 years)
		SC	ICD-10	UK Medical Research Information Service
				
				SC ascertainment from coroner's verdicts
					Population: Patients after an episode of DSH	Independent RF for SC in patients after an episode of DSH (EA):
						- **Shared with accidental death:**
						  ■ Male (vs. female): HR = 2.25, 95% CI 1.62-3.12
						  ■ Age (≥35 vs. <35 yo): HR = 1.86, 95% CI 1.56-2.30
						  ■ Current or previous psychiatric treatment (yes vs. no): HR = 1.60, 95% CI 1.17-2.18
						  ■ Psychosocial assessment at last episode (yes v no): HR = 1.32, 95% CI 1.30-1.35
						- **Specific of SC:**
						  ■ Previous DSH episodes before index DSH (yes vs. no): HR = 1.49, 95% CI 1.26-1.76
						  ■ Method for index DSH (vs. self-poisoning only):
						    • Both self-poisoning and self-injury: HR = 1.76, 95% CI 1.39-2.24
						    • Cutting only: HR = 2.60, 95% CI 1.85-3.65
						    • Other self-injury: HR = 0.86, 95% CI 0.54-1.37
						  ■ Mental health problem (yes vs. no): HR = 1.53, 95% CI 1.36-1.73

Fried et al., 2012[114] USA	Prospective cohort study (A:WC)
	- **Focus:** differences in RF for SA among 9th and 11th grade youth
	- **Inclusion period:** 1994-1995
	- **Cohort:** adolescents from high schools that included an 11th grade
	  ■ 9th grade students (N = 1 648)
	    • Male: 48.6%
	    • Mean age: N/A
	  ■ 11th grade students (N = 1 728)
	    • Male: 50.4%
	    • Mean age: N/A
	- **Follow-up:** until 2002
		SA	"During the past 12 months, how many times did you actually attempt suicide?"	Monitoring	**Population:** 9th grade adolescents	Independent RF for SA in 9th grade adolescents (EA):
						- Physical development (vs. normal male):
						  ■ Non-normal female: OR = 3.81, 95% CI 1.61-9.03
						  ■ Non-normal male: OR = 0.05, 95% CI 0.01-0.25
						- Public assistance (yes vs. no): OR = 3.56, 95% CI 1.65-7.71
						- Illegal drugs use (yes vs. no): OR = 1.92, 95% CI 1.06-3.49
						- Sexual orientation (homosexual vs. heterosexual): OR = 3.32, 95% CI 1.32-8.33
						Depression (yes vs. no): OR = 2.64, 95% CI 1.45-4.81

					Population: 11th grade adolescents	Independent RF for SA in 11th grade adolescents (EA): - Non-Hispanic other race/ethnicity (vs. White): OR = 3.20, 95% CI 1.17-8.7 - Personal history of sexual abuse (yes vs. no): OR = 9.24, 95% CI 3.96-21.57 - Depression (yes vs. no): OR = 2.65, 95% CI 1.01-6.91 - Counselling (yes vs. no): OR = 2.65, 95% CI 1.04-6.79 Independent PF for SA in 11th grade adolescents (EA): - Cognitive development: problem solving using systematic method (yes vs. no): OR = 0.41, 95% CI 0.17-0.96

Goldstein et al., 2012[50] **USA**	Prospective cohort study (A:WC)
	- **Focus:** RF for SA in youth with bipolar disorder
	- **Inclusion period:** 2000-2006
	- **Cohort:** 7-18 yo patients with diagnosis of bipolar I, bipolar II or non-otherwise specified bipolar disorder (DSM-IV)
	  ▪ Male: 53%
	  ▪ Mean age = 12.6 (SD 3.3)
	- **Mean follow-up:** 261.7 weeks (range = 26.0-439.0)
		SA	LIFE Self-Injurious/Suicidal Behaviour Scale	Monitoring	**Population:** Bipolar young patients	Independent RF for SA in bipolar youth (EA):
						- **Past or intake RF:**
						  ▪ Depressive severity (higher vs. lower): HR = 1.03, 95% CI 1.01-1.06
						  ▪ Family history of depression (yes vs. no): HR = 3.8, 95% CI 1.19-12.16
						- **Recent RF (in the 8 week preceding follow-up):**
						  ▪ Time spent with depression (more vs. less): HR = 1.02, 95% CI 1.01-1.03
						  ▪ Substance use disorder (yes vs. no): HR = 1.01, 95% CI 1.01-1.02

Hayashi et al., 2012[115] **Japan**	Prospective cohort study (D+A:WC)
	- **Focus:** post-hospitalization course and RF for SB in suicidal patients admitted to a psychiatric hospital
	- **Inclusion period:** 2006-2007
	- **Cohort:** >20 yo patients discharged from hospital to a residence after a SB episode in the 2 weeks prior admission (N = 65)
	  ▪ Male: 45.3%
	  ▪ Mean age = 36.6 (SD 11.6)
	- **Follow-up:** 2 years
		SA	SB with suicide intent (encompass SC)	Monitoring	**Population:** Adult patients discharged after an episode of SB	Independent RF for overall SB in patients discharged after an episode of SB (EA):
						- Anxiety disorder (yes vs. no): HR = 2.055, 95% CI 1.122-3.765
						- Cluster B personality disorder (yes vs. no): HR = 1.840, 95% CI 1.053-3.214
						- PH of maltreatment (yes vs. no): HR = 2.655, 95% CI 1.512-4.662
						- Number of lifetime SB episodes (cont.): HR = 1.011, 95% CI 1.004-1.018
						Independent RF for SA in patients discharged after an episode of SB (EA):
						- Hopelessness (cont.): HR = 1.120, 95% CI 1.037-1.222

Liu & Mustanki, 2012[23] **USA**	Prospective cohort study (A:WC)
	- **Focus:** RF predictors of SI and DSH in Lesbian Gay Bisexual and Transgender youth
	- **Study period:** 2006-2011
	- **Cohort:** Lesbian Gay Bisexual and Transgender youth aged 16-20 yo (N = 246)
	  ▪ Gender:
	    • Male: 43.5%
	    • Female: 48.4%
	    • Transgender: 8.2%
	  ▪ Mean age = 18.30 (SD 1.32)
	- **Follow-up:** 2 years
		SI
		
		DSH
			Brief Symptoms Inventory-18
			
			AIDS-Risk Behaviour Assessment
				Monitoring
				
				Monitoring
					Population: Lesbian Gay Bisexual and Transgender youth	Independent predictors of SI in Lesbian Gay Bisexual and Transgender youth:
						- Victimization (cont.): E = 0.089, StdE 0.041, p = .03
						- Social support (cont.) : E = -0.047, StdE 0.020, p = .02
						- Baseline impulsivity (cont.) : E = 0.008, StdE 0.003, p= .01
						Independent RF for DSH in Lesbian Gay Bisexual and Transgender youth:
						- Hopelessness (cont.): RR = 1.76, 95% CI 1.42-2.20
						- Victimization (cont.): RR = 2.50, 95% CI 2.03-3.07
						- Baseline gender conformity (cont.) : RR = 1.32, 95% CI 1.08-1.61
						- PH of SA (yes vs. no): RR = 3.22, 95% CI 1.52-6.84
						- Baseline-sensation seeking (cont.): RR = 1.78, 95% CI 1.03-3.05
						Independent PF for DSH in Lesbian Gay Bisexual and Transgender youth:
						Baseline male gender (vs. female gender): RR = 0.16, 95% CI 0.08-0.33

O'Connor et al., 2012[116] **UK**	Prospective cohort study (A:WC)
	- **Focus:** self-regulation of unattainable goals as predictors of DSH repetition after an episode of DSH
	- **Inclusion period:** 2005-2006
	- **Cohort:** patients from a general hospital following an episode of DSH (N = 237)
	  ▪ Male: 63.3 %
	  ▪ Mean age = 36.8 (SD 13.0)
	- **Follow-up:** 2 years
		DSH	Undetermined or determined DSH (ICD-10) with readmission to hospital	Information Service Division Scotland	**Population:** Patients after an episode of DSH
					
					Goal engagement/disengagement **In** patients after an episode of DSH
						Independent RF for DSH repetition after an episode of DSH in the general population (EA):
						- Past 10 years personal history of self-harm hospitalization (yes vs. no): OR = 2.73, 95% CI 1.38-5.39
						- Suicidal ideation (cont.): OR = 1.09, 95% CI 1.03-1.17
						
						Goal engagement/disengagement as independent predictors for DSH repetition after an episode of DSH (CA):
						- Goal engagement: OR = 0.48, 95% CI 0.29-0.78
						- Age x goal disengagement x goal engagement interaction: OR = 0.91, 95% CI 0.86-0.96

Wedig et al., 2012[27] **USA**	Prospective cohort study (A:WC)
	- **Focus:** RF for SA in patients with borderline personality disorder
	- **Inclusion period:** 1992-1995
	- **Cohort:** 18-35 yo inpatients with diagnosis of borderline personality disorder (Revised Diagnostic Interview for Borderlines and DSM-III-R) (N = 290)
	  ▪ Male: 19.7%
	  ▪ Mean age = 26.9 (SD 1.5)
	- **Follow-up:** 16 years
		SA	Lifetime Self-destructiveness Scale	Monitoring	**Population:** 18-35 yo borderline personality disorder patients	Independent RF for SC in borderline personality disorder (EA):
						- Major depressive disorder (yes vs. no): OR = 2.09, 95% CI 1.53-2.85
						- Substance use disorder (yes vs. no): OR = 1.68, 95% CI 1.26-2.25
						- PTSD (yes vs. no): OR = 1.93, 95% CI 1.38-2.69
						- Presence of DSH (yes vs. no): OR = 2.98, 95% CI 2.17-4.10
						- Adult sexual assault (yes vs. no): OR = 1.74, 95% CI 1.16-2.62
						- Caretaker SC (yes vs. no): OR = 2.94, 95% CI 1.62-5.35
						- Affective instability (yes vs. no): OR = 1.63, 95% CI 1.20-2.21
						- Dissociative Experience Scale (higher vs. lower score): OR = 1.02, 95% CI 1.01-1.03

Fiedorowicz et al., 2011[117] **USA**	Prospective cohort study (A:WC)
	- **Focus:** SB in prodromal Huntington disease
	- **Inclusion period:** 2002-2004
	- **Cohort:** patients with genetically confirmed prodromal Huntington disease (N = 735)
	  ▪ Male: 36.7%
	  ▪ Mean age = 41.2 (SD 9.7)
	Mean follow-up: 3.7 (SD 1.5)
		SB	SA + SC	Monitoring
				
				SC ascertainment from autopsy reports
					Population: Patients with prodromal Huntington disease	Independent RF for SB in prodromal Huntington disease patients (EA):
						- Depression: HR = 5.5, 95% CI 1.8-17.5 or HR = 6.3, 95% CI 2.0-19.7
						- PH of SA : HR = 6.3, 95% CI 2.0-19.7 or HR = 6.9, 95% CI 2.2-22.3
						- Incarceration in the past 2 years: HR = 6.9, 95% CI 1.5-32.7 or HR = 6.9, 95% CI 1.4-33.3
						NB: HR depend on the bivariate mode considered

Large et al., 2011[20] **Australia**	Meta-analysis (A:PopF/SumD)
	- **Focus:** RF for SC in psychiatric inpatients
	- **Include:** case-control, nested case-control and cohort studies (N = 28 studies)
	- **Population:** psychiatric inpatients
		SC	SC either as an inpatient or while on approved or unapproved leave from a mental health facility	Depending on studies	**Population:** Psychiatric inpatients	Independent RF for SC in psychiatric inpatients:
						- **Classified as "moderate" (OR ∈ [2.5-4])**
						  ▪ Prior SA or DSH (yes vs. no): OR= 3.95, 95% CI 3.22-4.84
						  ▪ Family history of SC (yes vs. no): OR = 2.78, 95% CI 1.70-4.52
						  ▪ SI (yes vs. no): OR = 2.63, 95% CI 1.52-4.56
						  ▪ Depressed mood (yes vs. no): OR = 3.92, 95% CI 2.59-5.92
						  ▪ Hopelessness (yes vs. no): OR = 3.70, 95% CI 2.28-5.99
						  ▪ Feelings of worthlessness, inadequacy or guilt (yes vs. no): OR = 3.73, 95% CI 2.33-5.98
						  ▪ High-risk categorization: OR = 10.94, 95% CI 5.94-20.16
						- **Classified as "weak" (OR ∈ [1.5-2.5])**
						  ▪ Social or relationship problems (yes vs. no): OR = 1.82, 95% CI 1.46-1.27
						  ▪ Prior psychiatric admission (more vs. less): OR = 1.81, 95% CI 1.33-2.45
						  ▪ Family history of mental illness (yes vs. no): OR = 1.55, 95% CI 1.13-2.12
						  ▪ SA at time of admission (yes vs. no): OR = 2.41, 95% CI 1.21-4.78
						  ▪ Agitation or anxiety (yes or no): OR = 2.12, 95% CI 1.20-3.76
						  ▪ Schizophrenia (yes or no): OR = 2.48, 95% CI 1.54-4.00
						  ▪ Affective disorder (yes or no): OR = 1.93, 95% CI 1.33-2.81
						  ▪ Admitted under the Mental Health Act (yes or no): OR = 1.87, 95% CI 1.14-3.08
						  ▪ Prescribed antidepressant (yes or no): OR = 2.43, 95% CI 1.52-3.90
						  ▪ Length of hospital stay (longer or shorter): OR = 2.33, 95% CI 1.44-3.77

					Population: Schizophrenia inpatients	Independent RF for SC in schizophrenia inpatients: - Depressed mood (yes vs. no): OR = 4.77, 95% CI 2.86-7.98 - Prior SA (yes vs. no): OR = 4.14, 95% CI 2.24-7.71 - Number of previous admission (higher vs. lower): OR = 2.93, 95% CI 1.69-5.10

Links et al., 2012[118]
Canada
	<u>Prospective cohort study (A:WC)</u>
	- **Focus:** RF for increased SI and SB following recent discharge
	- **Inclusion period:** 2007-2009
	- **Cohort:** high-risk patients (i.e. lifetime PH of SB accompanied by some level of intent to die and current SI as documented in the admission assessment), discharged from an inpatient psychiatric service or a short-stay crisis stabilization unit (N = 102)
	  ■ Male: 52.5%
	  ■ Mean age: 37.5 (SD 11.1)
	- **Follow-up:** 6 months
		SI	Scale for Suicidal Ideation score (both treated as continuous variable and dichotomized in positive vs. negative for SI)	Monitoring	**Population:**
					At risk patients (PH of SB or SI at admission + discharged form psychiatric or crisis unit)
						<u>Independent predictors for SI change from baseline to 1 month in at-risk discharged patients (EA):</u>
						- Past SA before admission (>1 vs. ≤ 1): E = 5.41, StdE 1.67, p = .0017
						- Female gender (vs. male gender): E = 3.27, StdE 1.77, p = .0894
						- Hopelessness (cont.): E = 0.36, StdE 0.16, p = .0256
						- Axis-II disorder (yes vs. no): E = −4.97, StdE 1.93, p = .0115
						- Mental health/health care provider availability on admission (no vs. yes): E = 2.78, StdE 1.93, p = .1545
						<u>Independent RF for SI positive at 1, 3 and 6 months in at-risk discharged patients (EA):</u>
						- Admission for SA (vs. admission for SI): OR = 3.60, 95% CI 1.27-10.76
						- Female gender (vs. male gender): OR = 2.46, 95% CI 1.20-5.05
						- Depression (cont.): OR = 1.04, 95% CI 1.01-1.07

Fazel et al., 2008[119]
UK
	<u>Meta-analysis (A:PopF/SumD)</u>
	- **Focus:** RF of SC in prisoners
	- **Restricted to**: retrospective comparative studies (N = 34 reports)
	  ■ Studies using a randomly selected or matched control group as comparator
	  ■ Studies using a the total or average prison population from a matched time period as comparator
	- **Population:** prisoners
		SC	Completed suicide, completed suicide and open verdicts, or not recorded	Depending on studies	**Population:**
					Prisoners
						<u>Independent RF for SC in prisoners:</u>
						- **Demographic RF:**
						  ■ Male gender (vs. female gender): OR = 1.9, 95% CI 1.4-2.5
						  ■ Being married (yes vs. no): OR = 1.49, 95% CI 1.28-1.74
						  ■ White race/ethnicity (N/A): OR = 1.9, 95% CI 1.7-2.2
						- **Criminological RF:**
						  ■ Occupation of single cell (vs. shared cell): OR = 9.1, 95% CI 6.1-13.5
						  ■ Being a detainee or on remand (yes vs. no): OR = 4.1, 95% CI 3.5-4.8
						  ■ Sentence length
						    • Equal to or greater than 18 months but not life (comparator N/A): OR = 1.6, 95% CI = 1.1-2.2
						    • Life sentence (N/A): OR = 3.89, 95% CI 1.14-13.27
						  ■ Type of offense
						    • Offense of murder/manslaughter (N/A): OR = 3.6, 95% CI 1.6-8.3
						    • Violent offenses but not murder/manslaughter/sexual (N/A): OR = 3.5, 95% CI 1.4-9.0
						- **Clinical RF:**
						  ■ Recent SI (yes vs. no): OR = 15.2, 95% CI 8.5-27.2
						  ■ PH of SA (yes vs. no): OR = 8.4, 95% CI 6.2-11
						  ■ Having a psychiatric diagnosis (yes vs. no): OR = 5.9%, 95% CI 2.3-15.4
						  ■ Being on psychotropic medication (yes vs. no): OR = 4.2, 95% CI 2.9-6.0
						  ■ Having an alcohol use problem (yes vs. no): OR = 3.0, 95% CI 1.9- 4.6
						<u>Independent PF for SC in prisoners:</u>
						- **Demographical:**
						  ■ Black race/ethnicity (N/A): OR = 0.4, 95% CI 0.3-0.4
						- **Criminological:**
						  ■ Length of sentence less than 18 month (N/A): OR = 0.4, 95% CI 0.2-0.9

Zivin et al., 2007[25] **USA**	<u>Historical cohort study (A:WC)</u> - **Focus:** RF of SC in American veterans with depression - **Inclusion period:** 1999	SC	N/A	US National Death Index	**Population:** Depressed veterans	<u>Independent RF for SC in depressed veterans:</u> - Any substance abuse (yes vs. no): HR = 1.74, 95% CI 1.56-1.96 - Previous inpatient stay for psychiatric disorder in last 12 months (yes vs. no): HR = 1.92, 95% CI 1.61-2.28

	- Cohort: veterans with a diagnosis of depressive disorder either confirmed by 2 medical visits or on antidepressant medication (definition: N/A) (N = 807 694) 　▪ Male: 92.0% 　▪ Mean age = N/A **- Follow-up:** until 2004					Independent PF for SC in depressed veterans: - Female gender (vs. male gender): HR = 0.35, 95% CI 0.26-0.47 - Race: 　▪ African American (vs. White): HR = 0.24, 95% CI 0.19-0.30 　▪ Hispanic (vs. White): HR = 0.47, 95% CI 0.35-0.63 - Age 45-64 (vs. 18-44): HR = 0.77, 95% 0.66-0.90 - Service connection (yes vs. no): HR = 0.87, 95% 0.78-0.97 - Region of residence (USA): 　▪ Northeast (vs. South): HR = 0.76, 95% CI 0.66-0.87 　▪ Central (vs. South): HR = 0.80, 95% CI 0.71-0.91 - Post-traumatic stress disorder x age ≥ 65 yo interaction (vs. no co-occurrence of the two conditions): RR = 0.66, 95% CI 0.44-0.99
Hawton et al., 2005[21] UK	Meta-analysis (A:PopF/SumD) **- Focus:** RF for SC and SA in bipolar disorder **- Include:** prospective and retrospective cohort, case-control and cross-sectional comparative studies (N = 55 papers) 　▪ For SC, N = 13 studies 　▪ For SA, N = 23 studies **- Population:** patients suffering from bipolar disorder (DSM-IV or ICD-10) (N = 17 319 for SC, N = 6 244)	SC SA	N/A Encompass DSH	Depending on studies Depending on studies	**Population:** Bipolar disorder patients	Independent RF for SC in bipolar disorder patients: - Male (vs. female): OR = 1.46, 95% CI 1.25-1.70 - Hopelessness at admission (yes vs. no): OR = 9.53, 95% CI 1.20-76.0 - History of SA (yes vs. no): OR = 2.25, 95% CI 1.02-4.96 Independent RF for SA in bipolar disorder patients: - Family history of SC (yes vs. no): OR = 1.71, 95% CI 1.25-2.31 - Admission because of depression (vs. admission because of other condition): OR = 7.36, 95% CI 3.59-15.1 - Mixed state at admission (yes vs. no): OR = 2.08, 95% CI 1.64-2.64 - Comorbid anxiety disorder vs. no comorbid anxiety disorder: OR = 1.56, 95% CI 1.13-2.16 - Comorbid alcohol abuse vs. no alcohol abuse: OR = 1.54, 95% CI 1.19-1.99 - Comorbid drug abuse vs. no comorbid drug abuse: OR = 1.83, 95% CI 1.28-2.61 - Comorbid drug and/or alcohol abuse vs. no comorbid drug and/or alcohol abuse: OR = 1.78, 95% CI 1.18-2.68
Hawton et al., 2005[22] UK	Meta-analysis (A:PopF/SumD) **- Focus:** RF of SC in schizophrenia **- Include:** cohort and case-control studies (N = 37 reports, 29 studies) **- Population:** schizophrenia patients (DSM-III and IV, ICD-8 to 10, Research Diagnostic Criteria and Feighner criteria	SC	N/A	Depending on studies	**Population:** Schizophrenia patients	Independent RF for SC in schizophrenia **- Related to sociodemographic characteristics and social or familial history:** 　▪ Male gender (vs. female gender): OR = 1.56, 95% CI 1.29-1.9 　▪ Recent loss (yes vs. no): OR = 4.03, 95% CI 1.37-11.8 　▪ Family history of depression (yes vs. no): OR = 2.94, 95% CI 1.13-7.67 **- Related to the disorder characteristics:** 　▪ Agitation or motor restlessness (N/A): OR = 2.61, 95% CI 1.54-4.41 　▪ Worthlessness or low self-esteem (N/A): OR = 3.31, 95% CI 1.58-6.94 　▪ Hopelessness (N/A): OR = 21.4, 95% CI 1.71-268.00 　▪ Insight (compactor N/A): OR = 2.04, 95% CI 0.54-7.74 　▪ Fear of mental disintegration (N/A): OR = 12.1, 95% CI 1.81-81.3 　▪ Poor compliance with treatment (N/A): OR = 3.75, 95% CI 2.20-6.37 **- Related to suicidal phenomena:** 　▪ Past SA (yes vs. no): OR = 4.09, 95% CI 2.79-6.01 　▪ Past SI (yes vs. no): OR = 3.34, 95% CI 1.75-6.4 　▪ Recent SI (yes vs. no): OR = 29.8, 95% CI 12.2-73.0 **- Related to comorbid disorders or behaviours:** 　▪ Past depression (yes vs. no): OR = 3.03, 95% CI 2.06-4.46

					▪ Recent depression (yes vs. no): OR = 1.29, 95% CI 1.29-29.9 ▪ Drug misuse or dependence (yes vs. no): OR = 3.21, 95% CI 1.99-5.17 Independent PF for SC in schizophrenia: ▪ Hallucinations vs. (compactor N/A): OR = 0.5, 95% CI 0.35-0.71

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