Differentiation of Suicidal Behavior in Clinical Practice

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Abstract

A clinical differentiation model of suicidal behaviors may improve clinical practice. It may be helpful to determine which type of treatment is most appropriate for subtypes of suicidal behaviors and may improve adherence to suicide prevention guidelines. Also, differentiation of suicidal behaviors may create clarity about the role of healthcare providers, patients, and social networks in the prevention of completed suicide. From clinical experience, we developed a new model to differentiate subtypes of suicidal behaviors, the hypothetic four-type model of entrapment (H4ME), distinguishing the origin of entrapment that may result in a suicidal state. The subtypes are (1) perceptual disintegration (PD), (2) primary depressive cognition (PDC), (3) psychosocial turmoil (PT), and (4) inadequate communication/coping (IC) (emphasizing emotional pain). The SUICIDI-questionnaire was designed to identify subtypes of entrapment. In this chapter, we briefly describe previous models of subtypes of suicide, the

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background of the H4ME development, and a study design to examine the proposed models' validity.

Keywords

Differentiation · Subcategories · Subtypes · Historical · Suicidal behavior · Suicidality

Introduction

While suicidal behavior is common, suicide, the "end-product" of suicidal behavior, is rare. For example, in the Netherlands approximately 400,000 people per year experience suicidal thoughts. There are about 96,000 suicide attempts and around 1,850 people end their lives [1]. This means less than 0.5% of people experiencing suicidal thoughts ultimately end their lives. Because of the enormous impact of suicide thoughts, there is more attention and focus for suicide than for the more common suicidal behavior.

Clinical differentiation of somatic disorders is common, for example, the differentiation and classification of breast cancer [2], diabetes [3], dementia, [4], etc. Differentiation and classification of disorders have resulted in improved diagnosis, more effective treatment, and targeted counseling strategies. Suicidal behavior is complex and multilayered; it never occurs in isolation because there are always several factors at stake. Except for a distinction between suicidal behavior with or without attempt or between acute and chronic suicidal behavior, general guidelines, scientific research, and general texts about suicidal behavior do not differentiate suicidal behavior. Still, it continues to be defined as a uniform concept [5–7].

When it comes to treatment or management of suicidal behavior, risks assessment for suicide is extremely difficult. Even though some predictive, treatable factors are known, the main emphasis seems to be on treatment of underlying psychiatric illness and general safety planning rather than on the suicidal process that may lead to suicide. Suicidal behavior occurs in a variety of psychiatric disorders [8], but only for borderline personality disorder and/or major depressive disorder suicidal behavior is one of the possible symptoms required to meet the DSM classification criteria. There is some knowledge and evidence of effective, specific forms of psychotherapy and biological treatments for suicidal behavior [9]. However, we observe a discrepancy between knowledge and the practical application of what we know. Theoretical results from neuroimaging, research into genetic vulnerability for suicide and psychiatric research into suicidal behavior, for example, are often difficult to apply into practice.

Mental health services have extensive knowledge and experience with suicidal behavior and are almost automatically expected to manage people presenting with suicidal behavior.

The matter of professional responsibility and liability is extremely complex whether it is about collective responsibility or individual responsibility of members

of a mental health team or other caregivers. Responsibilities of professionals are partially determined by the way people with suicidal ideation present themselves to services. Taking into consideration that in the Netherlands, 60% or less of the people who end their lives were not known to mental health services [10], we might wonder whether specialist services should be solely responsible for managing suicidal behavior. Inpatient units can admit patients when a community team is unable to manage the risks; however, admission is also an opportunity to shift the risks from the community to the inpatient unit. It is a misconception that an inpatient unit is better able to keep a patient safe; however, the effectiveness of admission is not known. We do know though that admission is not a determining factor for the ultimate suicide risk and can even lead to iatrogenic damage both on the short and long term [11, 12]. Management of suicidal behavior by non-specialist services – who may not have the extensive knowledge and support system to fall back on – is not straightforward and this will raise further questions about issues around responsibility. The complex dynamics and the risks resulting from suicidal behavior may lead to formalized and restrictive, "defensive" practice.

Theoretical typologies are useful in generating new hypotheses about suicide risk, treatment, and prevention. Classical, contemporary, and empirical typologies of suicide have been established (see for an overview [13]). A well-known example of classical typology is Emile Durkheim's model that distinguishes

1. Egoistic
2. Altruistic
3. Anomic;
4. Fatalistic suicide

Durkheim compared suicide rates for various groups (e.g., Protestants and Catholics, soldiers and civilians) and put in place a theory of suicide deducted from the influence of social forces. He argued that suicide rates are a reflection of the degree to which individuals were integrated into and regulated by society [14]. An example of a more contemporary typology of suicide is the psychodynamic conceptualization of suicide, based on "cessation," defined as "discontinuation of capacity for any further conscious experience" [15]. Shneidman used the term "psyde" to represent cessation and delineated four subtypes of suicidal individuals:

1. Psyde-seekers
2. Psyde-initiators
3. Psyde-ignorers
4. Psyde-darers

Empirical studies on typologies of suicide [1, 16–21] were conducted when more comprehensive statistical methods became available. Risk factors for suicide, identified in epidemiological studies, served as (sets of) variables to quantify typologies. For example, Reynolds and Berman (1995) attempted to distract the major subtypes of suicide previously reported in the literature and empirically reduce them to a

useful number. They identified significant overlap between typologies proposed by earlier theorists and simplified them into five distinct subgroups [16]:

1. Depression/low self-esteem
2. Escapist
3. Aggression
4. Confusion
5. Alienation

The identification of typologies of suicide has been useful to formulate theories to explain suicide, such as the cry of pain (CoP) hypothesis [22], the interpersonal theory (IPT) [23], and the escape from self model – which extends existing theories of escape and arrested flight [24]. We need however to bear in mind that theoretic types of suicide do not clearly discriminate between completed suicide and non-fatal suicidal behaviors. A relatively new approach in this context is the integrated motivational-volitional model of suicidal behavior [25] aiming at making a distinction between persons with suicidal thoughts and those who engage in suicidal acts. Even though a differentiation model of suicidal behavior would be helpful to develop and investigate successful treatment strategies, no clear differentiation systems for "suicidal behaviour" are available [13].

The common, unpredictable, unstructured, and risky presentation of suicidal behavior in clinical practice and the lack of structure and differentiation of management and diagnosis of suicidal behavior have been the inspiration and the foundation of the development of a model for clinical differentiation of suicidal behavior: the (hypothetic) four-type model of entrapment (H4ME). Its availability would enable clinicians to develop specific forms of management of suicidal behaviors and may enhance scientific research of suicidal behavior at biological, psychotherapeutic, and social level [8, 26–28, 29, 30, 31]. The H4ME model is purely based on clinical experience and assessments of a diverse range of suicidal presentations in mental healthcare practice. Hence, clinical practice is the starting point of the model's development.

The Context of Development

The H4ME has been developed in response to the publication of the Dutch multidisciplinary guideline on the assessment and treatment of suicidal behavior [32]. The implementation of the guideline by the Dutch mental healthcare system has been supported by the PITSTOP study [33], a cluster randomized trial, examining the effect of an e-learning-supported train-the-trainer model to train mental healthcare workers in applying guideline recommendations, compared with "the usual" implementation strategy. The PITSTOP training was specifically developed for this study [34] and is based on an integrated model of stress vulnerability [35] and entrapment [36] to explain the onset of suicidal behaviors (Fig. 1), designed and introduced by the authors of the Dutch multidisciplinary guideline [32].

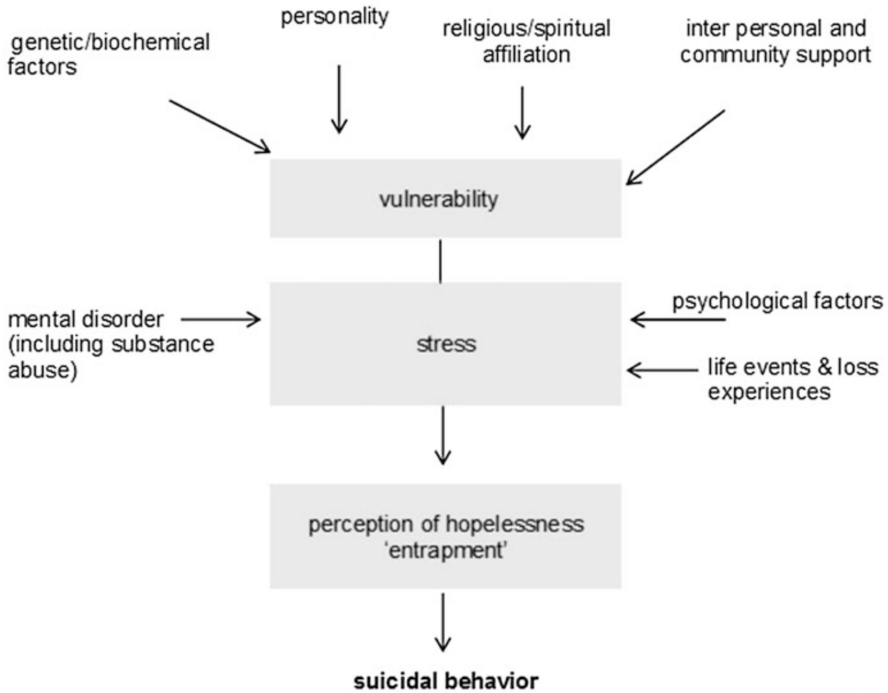

Fig. 1 Integrated model of stress vulnerability [35] and entrapment [36] of suicidal behavior

During the PITSTOP training, mental healthcare workers are trained to assess suicidal behaviors according to the clinical assessment of suicidal episodes (CASE) method [37] (Fig. 2), a four-step interview for the assessment of suicidal behavior. First, the current suicidal condition is examined to estimate the likelihood of completed suicide at the time of the interview. Second, stressful events contributing to the onset of the suicidal behavior are examined. Third, vulnerability and protective factors for suicide are assessed, and fourth, the patient's prospects of the future are addressed. The extent of entrapment, the feeling of being trapped and the cognition that escape is only achievable through death [36] are established by looking at the outcome of the first (current suicidal condition) and the last step (the patient's view of the future) of the CASE interview. For example, a patient who is an immediate risk of suicide and cannot see a future or an improvement of his situation is more likely to feel "entrapped" than a patient considering suicide because his wife is insisting on a divorce. On the basis of the CASE interview outcome, an appropriate multidisciplinary treatment strategy is established, for instance by moderating the impact of stress factors or by strengthening factors that protect the patient from getting entangled by the entrapment (Fig. 3).

The PITSTOP training resulted in an increased adherence to the Dutch multidisciplinary guideline compared to usual implementation strategies [38, 39]. The PITSTOP training has become the "golden standard" in the Netherlands when it

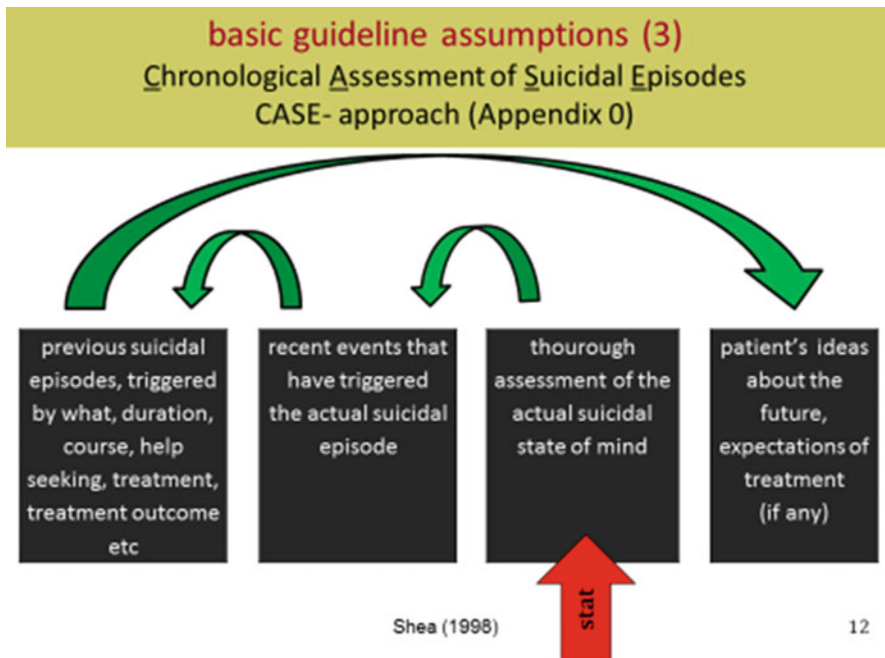

Fig. 2 CASE interview [37]

comes to training mental healthcare workers in suicidal behavior assessment and prevention strategies. Over the years, more than 40,000 mental healthcare workers of all professional disciplines were trained by the PITSTOP training. We found that mental healthcare professionals are becoming more familiar with the concept of "entrapment" and more skilled in looking at – and discussing – the pathway to entrapment. These essential skills are learned with the PITSTOP training. Currently, estimating the level of entrapment is the key strategy for assessment of short- and long-term suicide risks in patients presenting to mental health services with suicidal behavior.

The Benefits of Clinical Differentiation of Suicidal Behaviours

We believe that theoretical and empirical typologies of suicide have limited use in clinical practice. First, sets of variables representing a suicide typology may result in an unreliable estimate of the acute suicide risk. Additionally, whether patient factors or social factors increase or moderate the suicide risk depends on the context of in which it occurs [40]. For example, unemployment is a risk factor for a patient who recently lost his job and is a vulnerability factor when long-term unemployment has resulted in depression. When a patient lacks social skills to maintain himself in employment and is entitled to unemployment benefits, unemployment may be a

Subject	Observing/questioning	Increasing risk	Decreasing risk/protective	
1 Current suicidality	Acuteness of suicide risk	Strong wish to end life Little control over own actions Pressure to execute suicide plans Perceived burden to others Dichotomous thinking Severe perceived sense of suffering Tunnel vision Access to means	Low intention to die	
2 Recent stressors	Illness/poor health Impact of life-changing events	Psychiatric symptoms Substance abuse Somatic illness Loss Psychosocial stressors Humiliation	Connectedness with others Positive therapeutic relationship with mental health professional Parenthood Involvement with religious organization	ENTRAPMENT
3 Protective factors	Personality characteristics History of suicidal behavior Extent of social support Minimum needs for fulfilment have been met	Impulsivity Lack of problem-solving skills History of suicidal ideation History of suicide attempts Family history of suicidal behavior Reduced sense of meaning		
4 Future planning	Can see improvements and change for the better	Strong wish to end life Lack of control over behavior Pressure to execute suicide plans Burden to others Dichotomous thinking Experience of severe suffering Tunnel vision Access to means	Expectation that things will change or improve positively	

Fig. 3 Theoretical aspects of the CASE for the assessment of suicidal behavior

protective factor. Secondly, clinicians are not primarily interested in future suicide risks, but mostly want to know how to act to prevent suicide when assessing the immediate suicide risk. This may explain why international guidelines [41–43] do not distinguish between types of suicidal behavior.

We notice that a practical rather than a theoretical approach to management of the presenting behavior would be preferable for clinical practice. The presented H4ME model is a practical way to create order in the complexity of suicidal behavior. It distinguishes between different presentations of suicidal behavior and makes it easier for all stakeholders to assess this. The model supports clinicians to decide on the most appropriate, evidence-based management of suicidal behavior and allows a critical appraisal of roles and responsibilities of all stakeholders involved (the community, specialist, and non-specialist health services, neighborhoods, patients, relatives of the patient) in a practical and non-judgmental way. We assume that this will result in a change in dynamics and allow for best practice solutions and more evidence-based treatment.

The Hypothetic Four-Type Model of Entrapment (H4ME)

The Dutch multidisciplinary guideline [32] distinguishes between chronic suicidal conditions and acute suicidal conditions [44]. Van Luyn states that chronic suicidal behavior can be part of a diagnostic feature of borderline personality disorder. A

patient with a borderline personality disorder may become acutely suicidal in response to a life event or when suffering with a comorbid depression. An increased sense of helplessness and despair may (temporarily) increase the suicide risk. There is a difference in response of mental healthcare professionals to acute and chronic suicidal behavior. While a patient with chronic suicidal thoughts is expected to be able not to act on those thoughts, mental healthcare professionals are expected to protect the person if the suicidal intent suddenly becomes more acute and the risk of suicide increases [45].

Van Luyn's view (2010) inspired us to differentiate "the aetiology of entrapment." Etiology refers to the study of causation and onset of the condition. Looking at typologies as the starting point of the assessment of suicide risks and suicide prevention [13], we set out to develop a four-type model (H4ME) of entrapment rather than a model based on different types of completed suicide. We believe it is possible to categorise any form of suicidal behavior encountered in clinical practice into one of the four types and think that the H4ME is generally applicable irrespective of specific patient features like age, gender, diagnostic category, or any other subgroup feature. However, we cannot rule out that some patient – or environmental – characteristics may be associated with one or more types of entrapment. Additionally, we can foresee that "entrapment types" will need a more specific description or further differentiation. This is currently studied in a validation study [46] (see paragraph 6).

Screening of suicidal behavior will be improved if instruments and procedures are based on a small number of subtypes, and typologies should be based on existing models of suicidal behaviors [13]. The H4EM is based on the theory of entrapment, stating that the more the patient perceives "entrapment," the higher the actual suicide risk [36]. The model is further based on the assumption that suicide risks may vary between patients and within patients over time [32].

First, we will describe the four types of entrapment of the H4ME, and subsequently we will present the SUICIDI-2 classification (suicidal differentiation version 2): a preliminary instrument by which entrapment can be classified in type I, II, III, and IV. Table 1 displays vignettes of the four types.

The H4ME* distinguishes between four types of entrapment etiology:

I. Perceptual disintegration (PD) – entrapment originated from the context of disturbed perceptions and/or behaviors
II. Primary depressive cognition (PDC) – entrapment in the context of (a) depressive cognition(s)
III. Psychosocial turmoil (PT) – entrapment in the context of acute reactivity to a (deemed or actual) loss, offence, adversity, or doom
IV. Inadequate communication/coping(IC) (Emphasizing Emotional Pain) – entrapment in the context of communicating intense suffering

*Substance abuse and/or somatic symptoms can be viewed as modifiers whose effect depends on the subtype of entrapment (Fig. 4).

Table 1 Vignettes of entrapment typology

Vignette 1
This case is about a 31-year-old woman, developing suicidal thoughts 2 weeks after delivering her first child, believing her stepfather fathered the child and not the biological father of the child. There is a history of sexual abuse as a young girl, with stepfather as the perpetrator. Patient believes her child will return to the "immaculate universe," which is – according to the patient – a timeless entity without inequality. Patient has a history of previous psychotic episodes and two serious suicide attempts and except for a partner who is a lorry driver, there is little support and/or network at home
Vignette 2
This case is about a 24-year-old student who is convinced suicide is the only way out in a situation perceived as unbearable and unlikely to improve. He was recently diagnosed with bipolar affective disorder (BPAD) when he presented with a depressive episode, and the suicidal ideation gradually got worse. The patient experiences severe side effects of psychotropic medication and worries about "ending up" like his father, who was also diagnosed with BPAD. Patient sees himself as a failure and cannot foresee himself living his life as a "psychiatric case." Several members of his family tried to kill themselves when depressed and patient is vulnerable to adopt a similar behavior pattern. Protective factors are fellow students, housemates, and his younger sister who is still living with their parents. He considers himself to be a burden to others and finds it difficult to contain his impulse to hang himself
Vignette 3
This case is about a 47-year-old man who became suicidal after his wife ended the marriage and kicked him out when she caught him watching child porn on his computer. His wife reported him to the police and informed the board of the school where he worked as vice headmaster. Patient ran off with his car and was reported missing for several hours. He was picked up by the rail-track the same evening, waiting in his car for the freight train. He was desperate, thinking he could not continue living out of shame and feared he was going to lose contact with his wife, children and family including in-laws, work and church, just about everything that made his life worth living. Even though his son assured him he would continue supporting his father, patient did not want to face anyone. Patient is convinced he is better off dead and deserves God's punishment for his behavior
Vignette 4
This case is about a 56-year-old, divorced woman who attempted to take her life by taking 20 tablets of Oxazepam 10 mg and a bottle of wine. Patient warned her daughter after the overdose, who then found her. Reason for the overdose was a comment from her daughter that she thought it was better for patient not to see her grandchildren and patient felt rejected. Half a year ago patient had a CVA, ever since she suffers with a right-sided paralysis and is wheelchair-bound. She is known with alcohol dependency and chronic suicidal behavior and has a history of suicide attempts. Patient tried to kill herself after her other daughter died (1996), her partner (2011), and when her grandchild was diagnosed with neuroblastoma (2014). Patient is angry she did not manage to kill herself and is resentful towards her daughter because she called 999. For her, life is not worth living with physical disabilities and not being able to see her grandchildren

A multidimensional approach, making use of theoretical aspects of different forms of psychopathology and different dimensions of personality deficiencies playing an important role in the different presentations of suicidal behavior, was used for the theoretical foundation of the model. The model includes two clinical subtypes recognizable in clinical practice which are derived from the theoretical model of "affective dysregulation and perceptual disintegration" [47] and dimensions of the Cloninger model for temperament and character [48] with the

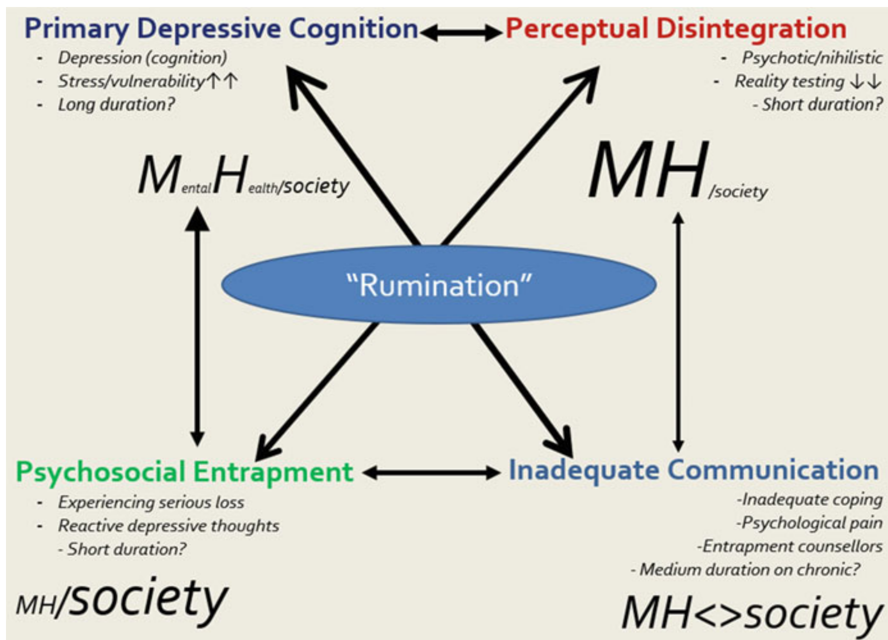

Fig. 4 The four subtypes of suicidal behavior and theoretical aspects

"personality deficiency dimensions" of temperament (harm avoidance, novelty seeking, reward dependence, and character) and character (self-directedness and cooperativeness).

SUICIDI-2: An Instrument to Classify Entrapment

The SUICIDI-2 (suicidal differentiation version 2) was designed to assign the entrapment status to type I, II, III, or IV. The SUICIDI-2 should be considered as a provisional description of the four types of entrapment. Over the last 3 years, the ongoing development of the H4ME model and the SUICIDI-2 was presented to psychiatrists, psychologists, and nurses. The H4ME model and the SUICIDI-2 were presented in meetings in the context of suicide prevention in the Netherlands and abroad [46, 49, 50–53]. Those meetings provided feedback of attenders; feedback was processed and resulted in the adoption of new versions. The SUICIDI-2 (and earlier versions) was repeatedly tested to examine its usability; it was discussed and adjusted after thorough discussion among suicide prevention experts during the last 3 years. The model was well received by colleagues and turned out to be suitable in clinical practice. It supports a clearer distinction between different phenotypes of suicidal behaviors and promotes a more tailored management and treatment strategy. The model has been used as a basis to develop a treatment algorithm for suicidal

patients to investigate suicidal behavior, as part of the Dutch national suicide prevention policy [52, 54] (Table 2).

Validation Strategy of the H4ME

Future research into the model may demonstrate that the model is not just applicable in practice but carries scientific validation and evidence. The hypothetical H4ME model has not been validated yet and as such may not cover the whole spectrum of suicidal behavior. Proposed subtypes may overlap or need further differentiation. It is not known yet, whether the SUICIDI-2 will capture the complete range of behavior as encountered within mental health services and may need adjustment. This is why we have initiated the VAMOS-G study the “validatie model suicidaal gedrag” (validation model suicidal behavior) [7]. The aims of the study are:

1. Determining whether the preliminary clinical model H4ME [52, 54] accurately describes the complete spectrum of suicidal behavior as encountered in specialist mental health services
2. Checking whether the SUICIDI-2 allows classification of the four types as described in H4ME
3. Investigating whether (and how) the SUICIDI-2 needs to be adjusted in order to classify suicidal behavior in four or more types or if there is overlap

Further research may answer the questions we raised and may result in an improvement of the model.

Discussion

Suicide risks vary in severity, which determines the urgency with which it needs to be managed. Suicide risk varies between the different types of entrapment and within the groups of identified patients. Progress varies, the etiology may be different and risks may recur. The model is not a statistical model and one type of suicidal behavior does not necessarily exclude the other. Management of suicidal behavior often depends on management of underlying issues, be it psychological, psychiatric, social, or physical.

Guidelines advise on treatment of comorbid or underlying mental illness and include psychological treatment and support, not just for personality disorders but also in case of inadequate coping skills. Examples are dialectical behavior therapy (DBT) metallization-based psychotherapy (MBT) and transference-focused psychotherapy (TFP) which are all effective for suicidal behavior in borderline personality disorder, achieving a reduction in suicidal behavior [55]. Mindfulness-based cognitive therapy (MBCT) has been shown by several studies to be effective [27], although – looking at the model – we do not know for which kind of suicidal behavior this would work best.

Table 2 The SUICIDI-2 classification of entrapment types

Type	Explanation	Description
I	Perceptual disintegration (PD)	0 = not applicable 1 = the suicidal behavior is associated with disturbed perception caused by perceptual disintegration and/or behavior but may also be explained by (an) other cause(s)* 2 = the suicidal behavior is mostly explained by disturbed perception caused by perceptual disintegration and/or behavior* *Probability of psychosis may be explained by a number of contributing factor. For example, a patient developed psychosis with suicidal thoughts while going through bereavement. In this case, psychosis is the cause; a 2 must be scored. This will also be the case when psychosis is triggered by substance use
II	Primary depressive cognition (PDC)	0 = not applicable 1 = the suicidal behavior is associated with depressive, negative thoughts or is related to dreariness, perceived sense of failure or imperfection 2 = the suicidal behavior is associated with depressive, negative thoughts or is related to feelings of depression, failure, or imperfection There is no psychotic symptomatology. The condition does not suddenly occur as a consequence of a negative event
III	Psychosocial turmoil (PT)	0 = not applicable 1 = the suicidal behavior is a reaction to an unexpected event accompanied by a loss. However, the onset of the suicidal behavior may also be explained by (an) other cause(s) 2 = the suicidal behavior is mostly explained by a real or imaginary experience of loss, adversity, or doom. Depressive symptoms may be present but last for less than 2 weeks. Negative cognitions are present, but they do not stem from psychosis. The suicidal behavior is not initiated and used as a tool to convince others to help or change the situation
IV	Inadequate communication/coping (IC) (Emphasizing Emotional Pain)	0 = not applicable 1 = the suicidal behavior is a way to express how suffering has increased the burden and/or the behavior is initiated to convince others to make changes to the situation the clinician has the impression that the patient does not have communicative skills to express their distress. Still, the clinician cannot fully assess whether the suicidal ideation is genuine 2 = the suicidal behavior is clearly used as a way to bring about change, however for others to initiate the change. Depressive or psychotic symptoms are absent

Table 3 describes – per type – features, diagnosis, treatment policy (pharmacological), and follow-up risk assessment; recommendations are based on empirical evidence and best practice.

Another promising way to manage suicidal behavior, focusing on the suicidal process, is CAMS [26, 28]. This method zooms in on the motivational drivers forming the basis of suicidal behavior. The above-named treatments and management of suicidal behavior might work best for the entrapment category of "depressive cognition" but also for Inadequate communication/coping(IC) (Emphasizing Emotional Pain), and more research is needed to find out if differentiation may improve the indication for specific psychotherapeutic treatment.

There is convincing evidence that cognitive behavior therapy is effective for treatment of suicidal behavior [56]. However, does this entail that it is equally effective for all types of suicidal behavior [31]? We are unable to elaborate on all and every form of psychotherapeutic treatment option that is available and need to be very careful about suggesting any, but we do know that the differentiation model may be helpful in allocating specific forms of treatment to specific forms of suicidal behavior.

There is insufficient evidence for the effectiveness of antidepressants, antipsychotics, mood stabilizers, anxiolytics, or ECT for isolated suicidal behavior [29, 57]. Only for clozapine and lithium there is evidence of a relation between reduction in suicidal behavior and psychotropic medication; however, the type of suicidal behavior for which it might be effective has not been specified [9, 58]. Perhaps it will work best for perceptual disintegration.

Hypnotics help to improve sleep for all groups, especially for the "psychosocial entrapment" group. But there is no strong evidence it will help with the reduction of suicidal behavior when there are serious sleep problems and ruminations.

ECT is more effective in reducing suicidal behavior than in reducing other symptoms associated with depression; however, there is still no convincing evidence that it lifts suicidal behavior completely. Perhaps clearer boundaries between groups and improved subtyping of suicidal behavior may generate research into evidence that it may help for the "perceptual disintegration type." Treatment with ketamine may play a role in treatment of treatment-resistant depression [59] and may especially be effective for the "primary depressive cognition" type.

As mentioned before, the H4ME model may also shed a light on responsibilities. Defensive practice and risk aversion may lead to attempts to shift responsibilities to other services, for example, from the community mental health service to the acute admission ward. This will lead to the emphasis being put on the responsibility of services and not on the best treatment for the patient. The model may help to allocate the appropriate form of care to a specific group and may prevent iatrogenic damage. Admissions for patients with personality disorders or people from the "Inadequate communication/coping(IC) (Emphasizing Emotional Pain" group may be counterproductive [12]. Ideally, for patients from the "psychosocial turmoil" group, admissions are kept brief. Long admissions may lead to alienation of a patients' support network, paradoxically worsen the symptoms or increase the stigma.

Table 3 Subtypes of suicidal behavior and possible relations and hypothetical policy

	Perceptual disintegration	Primary depressive cognition	Psychosocial turmoil	Inadequate communication/ coping(IC) (Emphasizing Emotional Pain)
Severity of the suicide risk	++++	++	+++	+
Duration	Days/weeks	Weeks/months	Days	Days/hours; often exacerbation of chronic suicidal behavior
Expected course	Reduction after treatment of psychosis	Reduction after biological and/or psychological treatment	Reduction when tunnel vision decreases Reduces when peak of mourning has passed	Nonspecific reduction within hours/days or when behavior has been exposed or when underlying problems have come to the surface Risk of acute shift to chronic risk and shift to another type
Recurrence	New psychotic episode Triggering of trauma	Recurrent affective disorder	Recurrent episode of psychosocial stress or continuation of severe stress Received “narcissistic” affront	Interpersonal stress and perceived powerlessness Lack of external recognition of underlying suffering
Reassessment of suicide risk	Several times a day Continuous during treatment After recovery With the recurrence of a new episode	Several times a day Regularly during treatment After recovery New episode, when the mood deteriorates	Several times a day Ranging from a few times a day to zero In the aftermath of an acute suicidal episode During a new episode of severe	After the suicidal episode When continued or renewed lack of recognition of underlying suffering During interpersonal stress and perceived powerlessness

	As precaution during trauma therapy		psychosocial stress and/or new setback	
Pharmacotherapy	Antipsychotics (clozapine) and/or mood stabilizer (lithium) Possibly additional benzodiazepines in the event of major anxiety	Antidepressant and/or mood stabilizer Restrained use of benzodiazepines when increased risk of impulsivity Short-term benzodiazepines for sleep deprivation	Restrained use of medication Possibly symptom relief for sleep deprivation and/or great anxiety	Hold back medication when possible (changes in or addition to) pharmacological treatment
Actions during crisis	Admission (if needed) Intensive home treatment if risk is acceptable	Emergency care - Intensive home treatment	Short admission	(F)ACT, crisis plan
Follow-up	Outpatient treatment of psychotic symptoms Trauma treatment	Outpatient treatment of depressive symptoms with CBT, CAMS, etc.	General practitioner	(F)ACT Additionally DGT or CAMS or collaborative care, etc. Vigilant for change of symptoms
Responsibility patient	Increasing when disintegration reduces	Increasing when depressive symptoms reduce	Increasing when "tunnel vision" fades	Holding back or taking over control Offer maximum support Recognize emotional suffering

Research of the effect of admission on suicide either in a locked or open ward does not show convincing effect on the reduction or prevention of suicide. The question remains: had a better differentiation of suicidal behavior been available, would the outcome have changed?

Conclusion

We are convinced suicidal behavior needs to be viewed as a heterogeneous concept and that we need to differentiate between various forms of suicidal behavior. Differentiation will promote introduction of alternative and innovative ways to manage suicidal behavior and professional responsibilities. It will allow research into biological, social, and psychological factors contributing to suicidal behavior being lifted to a higher level. We understand there is still a long way to go and this is a first attempt to introduce this kind of entrapment typologies.

The development of the H4ME model is a venture into unknown territory, and rather than taking the usual route of applying theoretical knowledge into practice, we took the reverse route by developing a theoretical model based on practical experience.

Development of the model involved a paradigm shift, a change in conceptual thinking about suicide, and the realization that suicidal behavior is heterogeneous and multifactorial rather than a uniform concept.

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