Collaborative assessment and management of suicidality method shows effect

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ABSTRACT

INTRODUCTION: Previous studies confirm the effect of collaborative assessment and management of suicidality (CAMS) in an experimental setup, but there is a need to test CAMS with regard to its effectiveness and feasibility in a real-life clinical context. The purpose of this study was to investigate CAMS in a Danish population in such a context.

MATERIAL AND METHODS: In the present descriptive study, CAMS treatment was administered to a total of 42 patients referred during 1 August 2008 to 30 September 2009 to The Centre of Excellence in Suicide Prevention due to suicidal thoughts or a suicide attempt. Qualitative and quantitative data were obtained before and after CAMS treatment. Five major suicidal markers were regularly assessed. The patients' experiences of the importance of the treatment were studied as endpoints.

RESULTS: A total of 81% of the patients completed treatment and 68% hereof completed the final evaluation. 74% from this group judged the sessions to be the main factor in the elimination of their suicidality. A significant decrease was observed in the five suicidal markers recorded for the 42 patients included. One patient attempted suicide and another patient committed suicide.

CONCLUSION: CAMS was assessed to be effective and useful in a real-life clinical context. Further studies in larger patient populations are needed as are studies to determine whether the CAMS method may be applied with equal effect to all patient groups.

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There is considerable epidemiological knowledge about the risk factors related to suicidal patients [1, 2]. Patients with severe mood disorders and psychotic disorders are examples of high-risk groups who in Denmark receive expert treatment at psychiatric hospital units or by specialised teams in the District Psychiatric Centres. However, some suicidal patients for whom relevant treatment is also needed do not belong to the target group of the psychiatric system. Based on previous studies [3, 4], the estimated annual number of suicide attempts among the latter group in the Capital Region of Denmark reaches 700-2,000.

The number of clinical studies demonstrating that a specific therapeutic intervention reduces suicidality is limited. However, some studies have reported promising effect of cognitive therapy, dialectical behaviour therapy, and collaborative assessment and management of suicidality (CAMS) [5-8]. The outcome of these studies is, however, often limited to specific diagnostic groups.

There is a need for further investigation into therapeutic methods that can be applied to the heterogeneous group of suicidal patients that does not belong to the target group of the psychiatric system and to investigate the feasibility of such methods. This study hypothesises that CAMS is, indeed, both an effective and a feasible method. The possible limitations of this relatively small study and the use of a "one size fits all" method are discussed.

MATERIAL AND METHODS

The Centre of Excellence in Suicide Prevention

The Centre of Excellence in Suicide Prevention of the Capital Region of Denmark serves patients who have made attempts at suicide and have serious suicidal thoughts and who do not belong to the target group of the psychiatric system. The clinical tasks of the Centre are: to perform psychiatric evaluations, assess suicide risk, provide psychotherapeutic as well as psychosocial support, and to assess the need/possibility for further treatment elsewhere. Patients are offered an initial session within five working days from their referral to the Centre. In order to ensure proper quality of the treatment offered, CAMS was implemented as per 1 August 2008. CAMS ensures that patients receive an evidence-based intervention. CAMS was chosen because it could be integrated into the existing treatment framework and because it includes an integrated tool for suicide risk assessment. Furthermore, CAMS allows the necessary therapeutic flexibility and has proven efficacy in a comparable Danish context [9].

Collaborative assessment and management of suicidality

CAMS is a comprehensive process of clinical assessment, treatment planning and management of suicide risk in suicidal patients. The method proceeds in three distinct phases: 1) initial assessment and planning of treatment, 2) clinical follow-up and 3) clinical outcome. Included in CAMS is an assessment tool termed the suicide status

ORIGINAL ARTICLE

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form (SSF). The patient and the therapist complete the SSF together to record the patient's level of suicidality and to ensure that focus remains on issues linked to the patient's suicidality. The SSF uses both Likert scales and open-ended questions to evaluate the patient's experience of psychological pain, stress, agitation, hopelessness and self-hatred (the five suicidal markers), and overall suicide risk. The subsequent therapeutic intervention can be cognitive, psychodynamic, systemic or of another nature depending on the patient's needs, and it can be of a more practical nature. A fundamental element of CAMS is the development of a strong therapeutic relationship [10, 11]. This is achieved through a deliberate and ongoing collaboration with the patient in an effort to understand the meaning of the patient's suicidal behaviour. The therapist takes a position where he or she considers the suicidal behaviour understandable (albeit troubling and problematic), as viewed through the patient's own perspective. The idea is that by understanding the functional aspects of the patient's suicidal behaviour, the therapist will be in a better position to propose alternative and less life-threatening coping strategies [11]. Specifically, the clinician sits him- or herself beside the patient and the two of them complete the SSF together in order to distance the treatment from the traditional practice in which the clinician is the expert and in order to move towards a more collaborative approach (**Figure 1**).

The Project

The Project is a prospective, naturalistic study with quantitative and qualitative pre- and post treatment data. We aimed to test the effectiveness and feasibility of CAMS with regard to the patient group treated at The Centre of Excellence in Suicide Prevention . Included in the study were persons residing in the Capital Region who were referred to or who on their own initiative contacted the Centre in the period 1 August 2008 to 30 September 2009, either after a suicide attempt or because they harboured serious suicidal thoughts. Exclusion criteria followed the guidelines of the Centre: patients for whom the suicide risk was acute and hospitalization was warranted, psychotic patients, patients with a serious substance abuse problem and persons who needed or were already in a treatment programme forming part of the mental health treatment system. Non-Danish speaking patients were also excluded from the study, but they received treatment in English.

During the study period, 74 patients were referred to or contacted the Centre directly. Referrals came primarily from the psychiatric or somatic emergency units or from general practitioners (GPs). Referring agencies were made aware of the Project via continuous personal contact and the Psychiatric Centres' main web page. Among the referred patients, 32 fulfilled one of the exclusion criteria. The remaining 42 consecutive patients were offered CAMS treatment and were included.

As shown in **Table 1**, most patients were young single women and half of them had previously had contact with the psychiatric system; one third met the criteria for a personality disorder diagnosis and more than one third were already receiving treatment with psychotropic drugs. The patients were seen weekly for individual sessions of approx. 45 min. The treatment ended when for three consecutive sessions the patient had been assessed as non-suicidal. Progress was evaluated in cooperation with the patient. An authorized psychologist under the supervision of a senior psychiatrist performed the treatment and made the psychiatric evaluation.

The primary goal of the treatment was the elimination of suicidal ideation and a decline in the five suicidal markers from start to completion of the treatment. The feasibility of CAMS was measured in terms of the proportion of patients who completed CAMS treatment.

FIGURE 1

A graphical presentation of the collaborative approach in collaborative assessment and management of suicidality.
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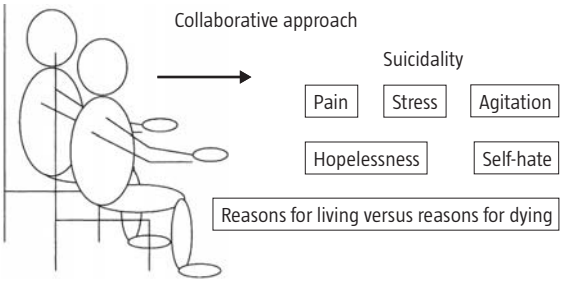

Statistics

A paired samples test was applied. All tests were performed in SPSS versions 14 and 15. A P value < 0.05 was considered significant. Effect size was calculated in accordance with the formula for Cohen's d [12].

Trial registration: The trial is a qualitative study of daily treatment practice and therefore requires no research ethics committee approval or registration. The project is registered at the Danish Data Protection Agency.

RESULTS

The effectiveness of the CAMS treatment is described in **Table 2**, **Table 3** and **Table 4**. We observed a significant decrease in the five suicidal markers with a medium to

large effect size between 0.47 and 0.99. This suggests an improvement in the patient's subjective experience and elimination of the suicide risk.

Among the 42 patients included in the study, 34 (81%) completed the treatment as planned and 23 (68%) of these patients completed the final treatment evaluation. Hereof, 74% replied that the treatment had meant that they no longer felt suicidal and 83% had experienced close collaboration between the patient and the psychologist – i.e. a good treatment alliance (Table 4). The average number of sessions was 5.5 (range 1-11 sessions). Six patients (14%) discontinued the process prematurely. Another two patients were discontinued from the study, one after admittance to a psychiatric ward and the other committed suicide. One patient attempted suicide, but continued treatment and was included in the study.

DISCUSSION

The study design suffers from several limitations. The number of referred patients is relatively small compared with the estimated size of the target population [3, 4]. This becomes even more clear when we consider that the present study targeted both patients with suicidal behaviour and patients with suicidal thoughts only. The gap may be due to a lack of knowledge among primary health care staff that referral to treatment is possible. Lack of referral may also be rooted in insufficiency of treatment resources and consequently also time spent on creating awareness of the Centre.

The exclusion criteria adopted in the present study may have been instrumental in selecting patients in a manner that underestimates the positive effect of the therapy. We excluded patients belonging to the target group of the psychiatric system (see above) and thereby excluded a high-risk group [13]. It has previously been found that effect sizes of different interventions are positively correlated with patients' degrees of psychopathology [4, 14].

Comparing our results with those of a similar study from Glostrup [9], we found that the treatment effect was smaller in our study. The reasons for this may be rooted in several circumstances: The study from Glostrup was a research project in which written, informed consent was obtained from participants who contacted the Psychiatric Emergency Room, the Somatic Department or the Medical Department because of either suicidal thoughts or suicide attempts [9].

The patient inclusion basis in our study is broader and our study also includes patients referred from GPs as well as patients who have themselves contacted the Centre. Our study also includes all patients who met the criteria for contact with The Centre of Excellence in Suicide Prevention and patients were therefore not required to give written consent in order to participate in the study. Providing written consent involves reading lengthy project descriptions and signing a contract-like

TABLE 1

Description of sample at inclusion (n = 42, female/male: 33/9).

	%
Socio-demographic data	
Female/male	79/21
Age	
18-29 years	69
30-49 years	26
50-65 years	5
Marital status	
Single	88
Current employment status	
Employed	38
Student or similar	21
Unemployed	41
Psychiatric history	
Current suicide attempt	62
Current suicidal ideation	38
Previous contact to the psychiatric system, not admitted, not District Psychiatry	50
Previous contact to the psychiatric system, admitted	29
Current use of psychotropic drugs	36
Minor substance or alcohol abuse	17
Significant trauma while growing up	12
Symptom duration < 1 year	83
A Diagnosis (ICD-10)	
Depressive disorders (F32, 32.1, 32.2 and 33)	19
Adjustment disorders, excl. depressive reactions (F43.2)	48
Adjustment disorders, primarily depressive reaction (F43.21 and 43.22)	33
B Diagnosis (ICD-10)	
Addictive/substance use disorders (F10.1, 10.2 and F12.1)	7
Psychotic disorders (F21)	2
Anxiety disorders (F41)	2
Eating disorders (F50.3 and 50.9)	7
Antisocial personality disorder (F60.2)	2
Borderline personality disorder (F60.30 and 60.31)	19
Personality disorder, unspecified (F60.9)	10
B diagnoses in total	49

ICD = International Classification of Diseases.

TABLE 2

Change in the five suicidal markers after receiving collaborative assessment and management of suicidality treatment.

	n	Pre-treatment, mean	Post-treatment mean	p value
Psychological pain	38	3.72	2.55	0.000
Stress	38	3.53	2.74	0.004
Agitation	38	3.26	2.50	0.007
Hopelessness	38	3.45	2.42	0.000
Self-hate	38	3.29	2.42	0.001

TABLE 3

Effect size.

	n	Mean	SD	D
Psychological pain	38	1.171	1.232	0.95
Stress	38	0.789	1.580	0.99
Agitation	38	0.763	1.635	0.47
Hopelessness	38	1.026	1.197	0.86
Self-hate	38	0.868	1.417	0.61

D = effect size; SD = standard deviation.

form and this may have been an entry barrier for those patients who were socially deprived, a group known to be at higher risk of suicidal behaviour. In addition, it is standard practice at the Centre that patients with previous suicide attempt(s) and patients who off-hand refuse treatment will subsequently be contacted to be made aware that the treatment offer exists. We assume that the therapists in our Centre are required to be more proactive than the participants of a research project and thus likely to include patients who potentially had a more ambivalent attitude towards treatment.

Suicide risk is generally larger for men than for women and particularly so for older men [1]. As shown in Table 1, the proportion of male patients was small in the present study (21.4%) and very few patients were older than 50 years (4.8%). The study underlines the continuing need for development of treatment programs targeting this special population.

The study raises a number of questions regarding the validity of CAMS in relation to patients with a personality disorder diagnosis. As shown in Table 1, a considerable proportion of the patients had such a diagnosis (31%). The therapist often experienced that this group had difficulties in completing the CAMS self-rating scales which invite the patient to rate his or her specific emotional symptom on a scale from one to five. The result was often a very high score on all items with little differentiation or development during the course of the CAMS treatment.

Apart from illustrating the patient's conditions, it is possible that such a result also reflects the patient's lack of capacity for self-monitoring which is a known problem in this group of patients [15]. This makes the task of filling out the CAMS forms particularly difficult for this group of patients; a problem that may, in turn, affect the validity of the method and also place special demands on the therapist's understanding of the responses, clinical assessment and ability to facilitate the patient's introspection.

TABLE 4

Compliance/the sessions therapeutic function.

	%	n
Completed treatment	81	34
Hereof the final questionnaire was answered	68	23
Hereof:		
The sessions were the main factor in the elimination of the suicidality	74	17
Cooperation between therapist and patient was good	83	19

The male patient who committed suicide was, in principle, well-treated and assessed as non-suicidal according to his CAMS score. The fact that he did commit suicide underlines the need for more knowledge about how risk factors, psychopathologies or personality types influence suicide risk in patients who successfully complete CAMS treatment. A recent study showed that the use of specific, violent methods in an unsuccessful suicide attempt involve an increased risk of a subsequent completed suicide [16]. We may also assume that patients with so-called introjective depression (a type of depression which among other is characterized by a tendency towards self-criticism and self-devaluation) may have difficulty developing the necessary trust and therapeutic alliance within a short therapeutic frame [17]. Similarly, it may be hypothesized that patients with a narcissistic personality problem would be helped very little by a short-term treatment that focuses on the elimination of suicidal impulses which in the narcissistic person's perspective may be precisely the only means with which to destroy the evil self-image [18]. There seems to be a basis for examining whether the CAMS method can be applied with equal effect to all patient groups and personality issues.

These difficulties in using CAMS raise questions about its theoretical basis. This problem is also pertinent when contemplating the collaborative framework. CAMS only describes the practices that unfold within the therapeutic space. The therapist, however, is also part of a larger institutional framework. This fact establishes an asymmetrical relationship where a life-threatened patient seeks help from an expert. The question is whether the ideal goal of egalitarian collaboration could be contaminated by the "system" in which suicidal behaviour is regarded as a psychopathological symptom devoid of personal meaning [19].

The above limitations imply that the positive effect of CAMS demonstrated in the present study must necessarily be considered as preliminary results. We plan to assess patients' progress within the context of a follow-up survey one year after they have completed the treatment.

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