Tidsskriftet Tidsskrift for Den norske legeforening

Can we predict suicide?

PERSPECTIVES

ØIVIND EKEBERG

Øivind Ekeberg (born 1945), MD, PhD, special adviser and Professor Emeritus.
The author has completed the ICMJE form and reports the following conflict of interest: He was a member of the working group that assisted the Norwegian Directorate of Health and Social Affairs to develop national guidelines for suicide prevention.

ERLEND HEM

E-mail: erlend.hem@medisin.uio.no
Erlend Hem (born 1970), MD, PhD, medical director of the Division of Mental Health and Addiction, Oslo University Hospital, and editor of the language column of the Journal of the Norwegian Medical Association.
The author has completed the ICMJE form and reports no conflicts of interest.

Some mental health professionals maintain that it is not possible to predict suicide and that suicide risk assessments can be harmful. We do not agree with those assertions.

In 2008, national guidelines for suicide prevention in mental health care were published in Norway (1). A milestone in suicide prevention work, these guidelines have, however, been criticised, partly because some mental health professionals believe that suicide risk assessments are not useful and may even be harmful (2, 3). It has also been maintained that it is not possible to predict suicide, even among high-risk individuals (3), and that several studies have demonstrated this (4–7). Claims like these can create uncertainty among clinicians as to what they should do.

The Norwegian Directorate of Health recently announced that "suicide cannot be predicted at the level of the individual" (8). This line of thought is too categorical and over-simplified. The chief problem with it is that it draws no distinction between assessing suicide risk in the short term and in the long

term (9). Naturally, we cannot make long-term predictions as to who will ultimately take their own life. But predictions are possible if the time horizon is of up to a few days, although that, too, can be difficult. A very recent meta-analysis of 37 studies showed that the average follow-up period was more than five years (4). It is self-evident that we can hardly expect to be exact in predicting suicide over such a long period, among other things because we cannot know in what way the patient's condition is likely to change spontaneously, how effective treatment may be, and what life events may take place after we have assessed the suicide risk (9).

Assessing suicide risk

To take a hypothetical example: A man comes home and finds a farewell note from his wife. Over the past few weeks she has been treated for depression at the local district psychiatric centre, and has previously talked about drowning herself in a small lake close to the couple's weekend cabin. The husband immediately calls the emergency services control centre, which sends an ambulance to the cabin. Both the husband and the health professionals at the emergency services control centre fear that there has been a suicide.

Alternative 1: The ambulance paramedics get there too late and find the woman dead in the water. Alternative 2: The ambulance paramedics see the woman swimming out into the lake, but manage to save her.

The risk of suicide in this case was undoubtedly high, and it is too easy to say that it was not possible to predict, as it was mere chance and the rapid response of the emergency services that prevented it. In the same way, surgeons may also describe an injury as fatal, even if they manage to save the patient.

Patients are admitted to Norwegian hospitals every day following suicide attempts. One of the first things we do after the initial life-saving treatment is to assess whether there is still a risk of suicide. We often find that there is, and we take preventive measures. With some of these patients, the risk of suicide is so high that we admit them to a psychiatric ward. Why should we do that if it is not possible to predict suicide? It is, however, difficult to document that the action taken has averted suicide, partly because it is unethical not to put in place safety measures when there is thought to be an acute risk of suicide.

One of the criteria for compulsory hospitalisation under the Norwegian Mental Health Care Act is that there is "an obvious and serious risk to the life and health of the patient or others". Here, the legislator has based the provision on the assumption that it is both possible to assess whether there is an acute risk of suicide, and that this assessment provides sufficient grounds for intervention in the personal liberty of the individual to the extent that compulsory hospitalisation can be utilised.

Risk assessment

The Directorate of Health refers in an information letter dated June 2017 to statements that "too much emphasis should not be placed on the actual risk assessment at the expense of other thematic areas in the national guidelines" (8). We do not agree with this, and in our view great emphasis should be attached to the risk assessment, but it should be limited to a short-term perspective. Nor can we see any contradiction between assessing suicide risk and focussing on other topics. On the contrary, it is probable that allowing the patient to talk about her pain, her feelings of hopelessness and her suicidal impulses – key factors in assessing suicide risk – will make it easier for us to identify topics that can help the patient avert the suicide and to regain hope and zest for life.

It is not an objective per se to predict who is likely to take their life in the long term, just as a cardiologist will not aim to predict who is likely to die of heart disease some years after a heart attack. The main purpose of assessing suicide risk is to gain a basis for determining how to save the patient's life and to decide what measures need to be taken to ensure optimal follow-up.

The national guidelines have contributed to drawing greater attention to the suicide prevention work. At the same time, it has become more common to report suicide and attempted suicide to the health supervisory authorities. We have seen examples of the criticisms made by the health supervisory authorities being based at best on questionable reasoning. It is both easy to be wise after the event and to imagine that all suicides among patients undergoing psychiatric treatment can be prevented. Fear of criticism has probably led to a number of repeated and simplistic assessments of suicide risk. The aim may perhaps be more to protect the therapist from criticism than the patient from self-destructive behaviour. It is quite a different experience for the patient to be assessed for suicide risk than to talk to the therapist about her problems.

There are many statistical risk factors for suicide, but they are of limited value in an acute suicide crisis (10). In that situation, it is more important to identify whether the patient has suicidal thoughts and plans for suicide, how concrete those plans are, whether they are present all the time or intermittently, whether the patient is hearing voices telling her what to do, and whether the patient is agitated, has access to means such as weapons or medication, and has no plans for the future (11).

One question of interest here is whether questionnaires are of use for assessing suicide risk. Used alone, they are insufficiently precise because of a low degree of sensitivity and specificity. The United Kingdom's National Institute for Health and Care Excellence (NICE) has recommended that questionnaires should not be used to predict suicide or repetition of self-harming, nor to determine who should be offered treatment or who should be discharged, although they can be of help in structuring a risk assessment (12). Instruments of this kind can indeed be a useful supplement to the clinical assessment, not least if the findings are discussed with the patient. A complete suicide risk assessment must include many elements, one of which can be the use of questionnaires. This is similar to the way in which cardiologists assess the risk of heart attack. Naturally, they will not content themselves with measuring only

a single risk factor; ECG measurements, blood pressure, cholesterol level, many other variables and, not least, the patient's own subjective and objective symptoms, will all form part of the assessment.

An issue has been made out of the fact that, if one were to distinguish between individuals with high and low suicide risk, most suicides would be among those in the low-risk group (3, 6). There is nothing surprising about this. The 'prevention paradox' dictates that when there are few people in a high-risk group, most of those who have a negative outcome will not come from that group. For example, most alcohol-related injuries affect people with medium to low alcohol consumption, and not those with the highest levels of consumption, even if the risk at individual level is greatest among heavy drinkers. In the same way, most individuals who take their own lives will not come from the group with the highest suicide risk.

It is particularly difficult to predict rare events, such as suicide, but that does not mean that we should not try. An example from another area of society may serve to illustrate that point. There are far fewer people who will carry out acts of terrorism than will take their own lives, thus making these events much more difficult to predict (9). Nevertheless, the security services in many countries carry out risk assessments, and there is every indication that they have managed to prevent a number of terrorist acts.

Suicide prevention works

For many years, there has been too little attention focussed on suicide prevention and too few attempts to systematise the assessment of suicide risk. There has also been too little systematic follow-up of individuals who have attempted to take their own lives. For that reason, it was an important step when, in 2008, the Directorate of Health and Social Affairs published national guidelines for suicide prevention in mental health care (1). It is now time to revise those guidelines.

However, we must caution against any notion that we have no means of assessing acute suicide risk. In our opinion, that can be a dangerous signal to send and may encourage erroneous assumptions that a suicide cannot be predicted in the short term. Even if, hopefully, we are able to take measures to prevent the suicide, that does not mean that the assessment was wrong. That is why an assessment of acute suicide risk is one of many suicide prevention measures.

One of the authors is an editor of the Journal of the Norwegian Medical Association. The manuscript has accordingly been processed externally by external editor Pål Gulbrandsen.

LITERATURE

1. Sosial- og helsedirektoratet. Nasjonale retningslinjer for forebygging av selvmord i psykisk helsevern. IS-1511. Oslo: Sosial- og helsedirektoratet,

2008. https://helsedirektoratet.no/retningslinjer/nasjonal-faglig-retningslinje-forforebygging-av-selvmord-i-psykisk-helsevern (2.7.2017).

2. Hagen J, Hjelmeland H, Knizek BL. Overdreven tro på selvmordsrisikovurderinger? Tidsskr Nor Legeforen 2014; 134: 394. [PubMed][CrossRef]

3. Aarre TF, Hammer J, Stangeland T. Ingen kan føresjå sjølvmord. Aftenposten 23.5.2017. https://www.aftenposten.no/meninger/kronikk/Ingen-kan-foresja-sjolvmord--Aarre_-Hammer-og-Stangeland-621645b.html (2.7.2017).

4. Large M, Kaneson M, Myles N et al. Meta-analysis of longitudinal cohort studies of suicide risk assessment among psychiatric patients: heterogeneity in results and lack of improvement over time. PLoS One 2016; 11: e0156322. [PubMed][CrossRef]

5. Chan MK, Bhatti H, Meader N et al. Predicting suicide following self-harm: systematic review of risk factors and risk scales. Br J Psychiatry 2016; 209: 277 - 83. [PubMed][CrossRef]

6. Nielssen O, Wallace D, Large M. Pokorny's complaint: the insoluble problem of the overwhelming number of false positives generated by suicide risk assessment. BJPsych Bull 2017; 41: 18 - 20. [PubMed][CrossRef]

7. Carter G, Milner A, McGill K et al. Predicting suicidal behaviours using clinical instruments: systematic review and meta-analysis of positive predictive values for risk scales. Br J Psychiatry 2017; 210: 387 - 95. [PubMed][CrossRef]

8. Selvmordsforebygging og selvmordsrisikovurderinger. Brev fra Helsedirektoratet til de regionale helseforetakene, datert 22.6.2017, referanse 17/15164-1.

9. Ekeberg Ø, Hem E. Vurdering av selvmordsfare nytter. Aftenposten 30.5.2017. https://www.aftenposten.no/meninger/debatt/Kort-sagt_-tirsdag-30-mai-622108b.html (2.7.2017).

10. Franklin JC, Ribeiro JD, Fox KR et al. Risk factors for suicidal thoughts and behaviors: A meta-analysis of 50 years of research. Psychol Bull 2017; 143: 187 - 232. [PubMed][CrossRef]

11. Ekeberg Ø. Vurdering av selvmordsrisiko. I: Ekeberg Ø, Hem E, red. Praktisk selvmordsforebygging. Oslo: Gyldendal Akademisk, 2016: 117-34.

12. Self-harm in over 8s: long-term management. Clinical guideline CG133. National Institute for Health and Care Excellence, 2011: 20-1. https://www.nice.org.uk/guidance/cg133 (2.7.2017).

Publisert: 13 November 2017. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.17.0573
Received 2.7.2017, first revision submitted 8.9.2017, accepted 26.9.2017. External editor: Pål Gulbrandsen.