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Editorial comment

High risk of depression and suicide attempt among chronic pain patients: Always explore catastrophizing and suicide thoughts when evaluating chronic pain patients

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A grave but important problem in the treatment of pain, is suicide. While many chronic pain problems are not life threatening, self-harming, e.g. suicide attempts are. Clinicians may ask whether suicide-risk is actually higher in a population of patients with chronic pain. In this issue of the *Scandinavian Journal of Pain* Elsebeth Stenager and her co-workers [1] publish an important study in which they have combined the WHO research database in Odense on all suicide attempts in Southern Denmark [2] with the database on patients referred to the multidisciplinary university pain clinic in Odense, Denmark [1]. The WHO-database comprises only suicide attempts that resulted in hospitalization, i.e. they were all serious attempts [2]. Suicide attempts of less serious character are not registered, so the research database is probably underestimating the real number of suicide attempts. The unique strength of the Stenager et al. study is that their data are strong, objective data from combining the registry data on suicide attempts with their chronic pain patient-data [1]. This enables the researchers to compare the pain–patient–population with the general population. We are not aware of any similar research on the real risk of suicide-attempts among the many who are burdened by chronic non-cancer pain [3].

1. Four-fold increased risk of suicide attempts in chronic pain patients

Pain clinicians have long suspected that their many pain patients who are depressed, and those whose pains are difficult to treat, are at higher risk of self-harming. Stenager and her co-workers have now documented beyond any doubt that this is a real problem. They show that there is almost a four-fold higher risk of suicide being attempted by desperate chronic pain patients compared with the general population in Southern Denmark. It is particularly disturbing that some of their pain patients attempted suicide more than once: 110 chronic pain patients had attempted suicide 258 times [1]. How could those taking care of these patients miss the signs of severe emotional stress leading to a serious suicide attempt?

Elsebeth Stenager and her co-workers list a number of known risk factors for suicide attempts by pain patients such as long duration of pain, severe pain intensity, and signs of depressive illness [1]. Depression is a significant part of chronic pain conditions [4,5].

2. Depression in pain or pain in depression – which came first, the chicken or the egg?

Is suicide-attempts by chronic pain patients a result of depression or of the pain itself? Certainly, it is clear that such patients are often quite emotionally distressed. In chronic pain patients, depression as a comorbidity is reported to be present in 1.5–100%, most commonly between 30% and 50%, depending on the criteria for the diagnosis of depression [4]. On the other hand, in patients suffering from depressive disorders, pain conditions such as headache, facial pain, neck and back pain, thoracic, abdominal, pelvic pain, and extremity pain occur in over 50% of patients – see reviews by Michael Nicholas [4], Steven Linton and Sofia Bergbom [5], and Roland Wörtz [6].

Thus, depression and chronic pain very often coexist. How do we know which came first, the pain or the depression? Is depression the cause of chronic pain? Or does chronic pain cause depression?

At least we know that pain management is less successful if the patient has a comorbid depression, but that an early recognition and treatment of depression tends to improve the outcome [4–6]. A similar trend is recognized in depressed patients with comorbid pain; treatments of the depression that fail to address the comorbid pain, tend to be less successful.

Linton and Bergbom [5] emphasize that the reciprocal negative interaction between pain and depression are well documented, but the mechanisms by which depression and pain impact on one another are not clear at all. However, they observed that catastrophizing ideation plays a central role in models of both pain and depression. Catastrophizing may therefore form an important link between them [4]. Linton and Bergbom also proposed that disturbed emotion-regulation may be a common mechanism since

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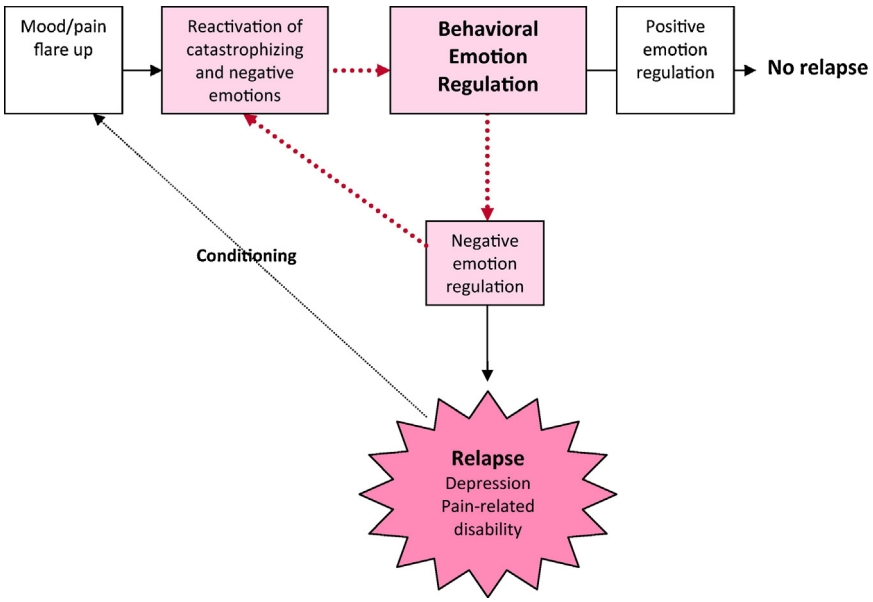

Fig. 1. The Örebro model of behavioural emotion regulation for pain highlights the role of catastrophizing, negative affect, and emotion regulation in relapse of pain and/or depression. Note that there are two vicious circles whereby catastrophizing increases negative emotion and more catastrophizing (*pink dotted arrows*) increasing the likelihood of relapse, and a second which underscores that a relapse is linked through learning to the trigger and in turn linked to emotion regulation making a relapse more probable in the future.

From: Linton SJ, Bergbom S. Understanding the link between depression and pain. Scand J Pain 2011;2:47–54 [5] with permission.

both pain and depression are significant emotional stressors. They proposed a model that focuses on the recurrent nature of pain and depression, hypothesizing that flare-ups trigger catastrophic worry that in turn strains the patient's emotional regulation system. Negative behavioural emotion-regulation results in spiralling negative affect, pain and mood related disability, more catastrophizing (e.g. "I will never get well" and "Nobody can help me get rid of my pain") (Fig. 1) [5]. In this context, it is no wonder that the pain patients harbour suicidal thoughts, make suicide plans, and unfortunately it is a fact of life that some patients go ahead and attempt suicide, so clearly documented by Elsebeth Stenager and her co-workers in Denmark [1].

3. Suicide-attempt is often a crie de coer for help that may easily become an unintended suicide

Some time ago, one of the authors (HB) lost two chronic pain patients in suicide. They had had severe chronic pain for several years (after failed orthopaedic surgery). Both were clinically depressed. In retrospect, we should have examined more specifically for catastrophizing and suicidal ideation. That could have provided us with some clues about their impending suicide plans. It is possible that none of them even intended to commit suicide, but rather wanted to communicate their desperate need for help. Maybe they did not know how effective their suicide-attempt methods were going to be? The entire team in the pain clinic grieved for a long time, as did the widows.

4. What must we do in order to prevent suicide in patients with chronic pain?

Therefore, it is so important to always examine the chronic pain patient for symptoms of depression, anxiety, and catastrophizing [1,4,5]. This is now incorporated in the questionnaire offered by the Norwegian Pain Society, recommended to be used in all pain clinics in Norway (see: www.norsksmerteforening.org).

Further, if the patient has had a severe pain condition, difficult to treat, for a long time, and if the patient is depressed, the pain clinician must ask directly about suicidal thoughts, suicide plans, and previous suicide-attempts. The following increases the risk of suicide: male gender, increasing age, psychiatric disease, and above all: a previous serious suicide attempt, or a concrete suicide plan [7]. Somewhat surprisingly, chronic pain is not among the listed risk factors in the advice on suicide prevention in the general population [7]. After Stenager and co-workers publication in this issue of the *Scandinavian Journal of Pain* [1], more attention has to be given to chronic pain as a serious risk factor of suicide attempts.

Clinicians may hesitate to open this seemingly "can of worms". Nonetheless, screening is a key to preventing suicide as most deaths occur after planning and in a phase when the patient loses control, i.e. cannot regulate their emotions. Many may fear that asking about suicide might increase the likelihood of suicide attempts by putting such thoughts into people's heads. This is, however, not the case. Several studies have demonstrated that suicide risk screening procedures are not harmful at all [8].

The first author (HB), after establishment of a good therapeutic relationship with pain patients, always asks directly if they feel depressed. And usually an honest answer is given. When exploring the severity of pain using a numeric rating scale (NRS-11) from 0 to 10, it is explained that 10 on this scale in fact means that the pain is so severe that most patients think seriously of committing suicide if they do not get help and relief very soon. After that statement, it follows easily to ask if the patient has suicidal thoughts and plans of committing suicide in a desperate attempt to get away from the terrible burden of pain. In this way it is possible to screen and to discover if the patient is at high risk of committing suicide. Follow-up questions about catastrophizing thoughts can help confirm that the patient is in serious trouble, and that he/she needs urgent professional help [9].

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