

the health system and should be included whenever a health system is being considered. □

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Current Research on Chronic Pain and Suicide

In a recent Journal article, Penttinen reported on an unexpected association between back pain and suicidal tendency in Finnish farmers.¹ This study was designed to investigate the relationship between back pain and fatal myocardial infarction. However, subjects reporting back pain during the year before study baseline had a significantly increased risk of committing suicide during the first 10 years of follow-up, when compared with subjects with no back pain symptoms. When adjusted for age, this finding remained significant. Based on these results, Penttinen called for more research to define the clinical character of back trouble, depression, and suicidal tendency.¹ The purpose of this letter is then to familiarize the readership with the current research status of this area of investigation.

There now is relatively strong evidence that pain patients are indeed at greater risk for completed suicide than patients without pain. The evidence is as follows. Patients with various medical conditions who complain of pain appear to be at increased risk for the presence of suicide ideation, suicide attempts, and completed suicide. For example, the vast majority of completed suicides in cancer patients occur among those patients with

inadequately controlled or poorly tolerated severe pain.² Similarly, suicide ideation in human immunodeficiency virus (HIV)-infected ambulatory patients was shown to be highly correlated with the presence of pain.² Patients with multiple sclerosis frequently complain of pain. These patients have a twofold increased suicide risk.³ Migraine headache sufferers also have been shown to be at increased risk for suicide attempts.⁴

It also seems that there is a high incidence of suicidal ideation among patients suffering from chronic nonmalignant pain. In a survey of members of a chronic nonmalignant pain self-help organization, 50% of the respondents reported that they had considered suicide.⁵ Chronic pain patients with "central" pain that is due to a lesion in the central nervous system also are at increased risk for suicide completion.⁶ Among chronic pain patients, the development of suicidal ideation is time-dependent. The longer the pain duration, the greater the likelihood for the presence of current suicidal ideation.⁷ Finally, in a pain facility study, Fishbain⁸ demonstrated that chronic pain patients' age-associated suicide completion rates were significantly greater than those of the general population and raised the issue of whether chronic pain was a suicide risk factor.

There is only one study that is at variance with the above data. Here, Stensman compared Uppsala, Sweden, suicide completers afflicted by various physical problems with the general Swedish population for prevalence of physical problems.⁹ Suicide completers with chronic benign pain were found not to be more prevalent in the suicide completer population than in the general Swedish population. However, this study was criticized for assuming that the age and sex distribution of the general population was identical to that of the suicide completer sample.¹⁰ Therefore, this study cannot be considered to add to the literature on the suicide rate of chronic pain patients.

The above data appear to indicate that chronic pain patients probably are not only at risk for suicidal ideation and suicide attempts but also their suicide completion rate is higher than that of the general population. Penttinen's "unexpected" results¹ are consistent with the above data. In a further analysis, Penttinen¹ could compare the suicide rate of Finnish farmers with back pain to that of the suicide rate of the general Finnish population as performed by Fishbain.⁸ Such an analysis could lead to a better

understanding of whether pain is a suicide risk factor.

A final issue is the question of the underlying reason(s) for the association of pain and suicide completion. Here, the strongest evidence relates to the association of pain and depression. The prevalence of depression has been demonstrated to be higher in chronic pain patients with nonmalignant pain vs nonchronic pain patients.¹¹ In addition, depression appears to share a unique variance with pain,¹² and more severe pain is associated with more severe depression.¹³ There also is some evidence that links pain, depression, and suicide. Here, Stenager¹⁴ found that suicide attempters complaining of pain were depressed more often than suicide attempters without pain. In addition, in a follow-up part of this study, a logistic regression analysis showed that painful somatic disease and depression independently predicted completed suicide. Consequently, each could be a suicide risk factor.

A diathesis-stress framework has been proposed to conceptualize the development of depression in chronic pain.¹⁵ However, it is still being debated as to whether depression is an antecedent or consequence of chronic pain.¹⁶ □

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