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Suicide risk in people with chronic fatigue syndrome

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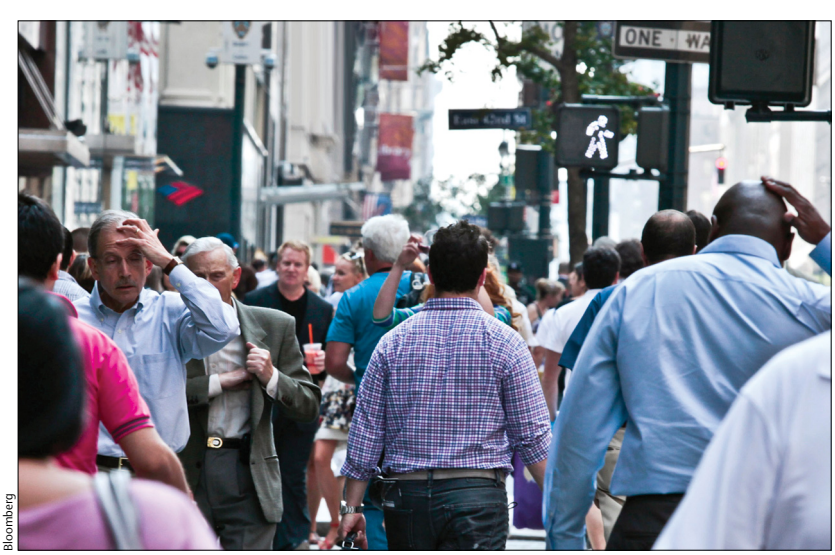
The risk of dying is increased in many illnesses, but the mortality associated with chronic fatigue syndrome is relatively unexplored. In *The Lancet,* Emmert Roberts and colleagues[1] report results from a case register study that linked the clinical details of more than 2000 people with chronic fatigue syndrome presenting to a specialist clinic (in London and the south of England) with mortality outcomes over 7 years. This is the largest study of its type so far, and used a robust case definition. The researchers noted that the overall risk of death in patients with chronic fatigue syndrome seemed no different from the risk in the general population. Cancer mortality was also similar. However, the findings for suicide deaths were striking—five people died during the 7-year period. Based on the suicide rate in the general population of England and Wales, the expected number would have been less than one death by suicide. In other words, suicide risk was increased almost seven-fold.



Bloomberg

A previous US study[2] reported an increase in suicide mortality in people with fatigue symptoms, but was too small to show an increased suicide risk in those who met the criteria for chronic fatigue syndrome.

The results of the current study are potentially very important but need to be interpreted with caution. The study was quite small for an investigation of mortality (n=2147 patients of whom 17 died). This small sample meant that the stratified analyses in particular (investigation of the risk of death in sex, age, diagnostic, and deprivation subgroups) lacked statistical power. The increased suicide mortality (sex-standardised mortality ratio 6·85, 95% CI 2·22–15·98; p=0·002) was based on just a few deaths and the confidence intervals were wide. Two fewer suicide deaths would have meant that the findings were no longer significant.

The cohort itself was well defined but consisted of people who attended a national specialist centre run jointly by general medical and mental health service providers. This could mean that participants were representative of people with more severe or complex chronic fatigue syndrome, and the mortality findings might not be applicable to people with the disorder in primary care.

The researchers defined suicide deaths using the WHO International Classification of Diseases (ICD-10) codes corresponding to self-inflicted deaths (X60–84). Some suicide deaths could have been missed—eg, a proportion of those coded as accidental hangings or poisonings.[3] Undetermined deaths (Y10–34) are also conventionally included as suicide in UK studies and official statistics.[4] Our understanding is that there were no such deaths in this cohort.

Finally, the risk of suicide was calculated by comparing the recorded number of deaths with the number that

would be expected if the age and sex-specific rates in the chronic fatigue syndrome cohort matched those in the general population in England and Wales. However, the catchment population for the chronic fatigue syndrome clinic (largely London and the south of England) might not be typical of the wider population. The investigators suggest that on the basis of a previous study, overall mortality estimates in people with mental illness are not appreciably different if rates are standardised to the London population rather than the population of England and Wales.[5] However, suicide mortality might be different. National data published in 2015 reported annual rates of suicide of 7·9 per 100 000 in London versus 10·7 per 100 000 in England and 15·6 per 100 000 in Wales.[4] Therefore, it could be that the actual expected number of deaths is lower than the number used in this study, and so perhaps the real risks (as indicated by the standardised mortality rates standardised to the local population) might be even higher. However, it is difficult to be certain of this because it was not possible to precisely specify the catchment population.

We agree with the researchers that the high relative risk of suicide is unlikely to be a chance finding. We need future studies in larger, general population cohorts to replicate or refute the associations reported in this study and explore possible risk factors such as physical[6] and psychiatric comorbidities.[7] Of course each suicide death is an individual tragedy but we should also bear in mind that even if these estimates are accurate, the absolute risk of suicide remains relatively low—less than one suicide death per 1000 people with chronic fatigue syndrome per year. The mechanism by which chronic fatigue syndrome might increase suicide risk remains unclear. It could be related to impairment of functioning and disruption to daily life. Previous findings have shown that suicide might be more likely if people have a personal contact with someone who has died by suicide.[8] We cannot rule out a clustering effect in this study; some of the people who died by suicide might have known each other. Perhaps the most plausible explanation though is the one the researchers have explored—depression is a risk factor for suicide in people with chronic fatigue syndrome just as it is in the general population.[9] Identification and treatment of depression could therefore help.

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NK and RW are involved in completed and planned work investigating suicide risk in different illnesses. We declare no further competing interests.

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Increasing worldwide access to medical opioids

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> "You are lucky Gordon, to have a controller who knows how to run railways."
>
> *Flying Scotsman, Thomas the Tank Engine, Wilbert Awdry*

As the medical world began to understand the bacterial nature of infection, development of the hypodermic syringe in the mid 1800s led to opioids becoming important in pain management. Yet, today, 80% of the world's population lack access to morphine,[1] a medicine included in WHO's first essential medicine list in 1977,[2] whereas increases in opioid consumption have occurred in most high-income countries.[3] Stefano Berterame and colleagues outlining this inequity and the continued absence of progress in improving access in *The Lancet*