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The psychological impact of quarantine

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Анотація
У даній статті розглянуто влив карантину на психологічний стан людини, та способи його послаблення. Порівняно людей які перебували на карантині, а які ні.
Ключові слова: ключова інформація, карантин, ефективне і швидке спілкування, карантинний період, негативні наслідки, обмеження свободи.

Abstract
The influence of quarantine on a person's psychological state and ways to weaken it are considered in this article. People who were in quarantine and who were not are compared.
Keywords: information is key, quarantine, effective and rapid communication, the quarantine period, negative consequences, restriction of freedom

Introduction

Quarantine is the separation and restriction of movement of people who have potentially been exposed to a contagious disease to ascertain if they become unwell, so reducing the risk of them infecting others. This definition differs from isolation, which is the separation of people who have been diagnosed with a contagious disease from people who are not sick; however, the two terms are often used interchangeably, especially in communication with the public. The word quarantine was first used in Venice, Italy in 1127 with regards to leprosy and was widely used in response to the Black Death, although it was not until 300 years later that the UK properly began to impose quarantine in response to plague. Most recently, quarantine has been used in the coronavirus disease 2019 (COVID-19) outbreak. This outbreak has seen entire cities in China effectively placed under mass quarantine, while many thousands of foreign nationals returning home from China have been asked to self-isolate at home or in state-run facilities. There are precedents for such measures. Citywide quarantines were also imposed in areas of China and Canada during the 2003 outbreak of severe acute respiratory syndrome (SARS), whereas entire villages in many west African countries were quarantined during the 2014 Ebola outbreak.

Why is this Review needed?

Quarantine is often an unpleasant experience for those who undergo it. Separation from loved ones, the loss of freedom, uncertainty over disease status, and boredom can, on occasion, create dramatic effects. Suicide has been reported, substantial anger generated, and lawsuits brought following the imposition of quarantine in previous outbreaks. The potential benefits of mandatory mass quarantine need to be weighed carefully against the possible psychological costs. Successful use of quarantine as a public health measure requires us to reduce, as far as possible, the negative effects associated with it.

Given the developing situation with coronavirus, policy makers urgently need evidence synthesis to produce guidance for the public. In circumstances such as these, rapid reviews are recommended by WHO. We undertook a Review of evidence on the psychological impact of quarantine to explore its likely effects on mental health and psychological wellbeing, and the factors that contribute to, or mitigate, these effects.

The psychological impact of quarantine

Five studies compared psychological outcomes for people quarantined with those not quarantined. A study of hospital staff who might have come into contact with SARS found that immediately after the quarantine period (9 days) ended, having been quarantined was the factor most predictive of symptoms of acute stress disorder. In the same study, quarantined staff were significantly more likely to report exhaustion, detachment from others, anxiety when dealing with febrile patients, irritability, insomnia, poor concentration and indecisiveness, deteriorating work performance, and reluctance to work or consideration of resignation. In another study, the effect of being quarantined was a predictor of posttraumatic stress symptoms in hospital employees even 3 years later. Approximately 34% (938 of 2760) of horse owners quarantined for several weeks because of an equine influenza outbreak reported high psychological distress during the outbreak, compared with around 12% in the Australian general population. A study comparing post-traumatic stress symptoms in parents and children quarantined with those not quarantined found that the mean post-traumatic stress scores were four times higher in children who had been quarantined than in those who were not quarantined. 28% (27 of 98) of parents quarantined in this study reported sufficient symptoms to warrant a diagnosis of a trauma-related mental health disorder, compared with 6%

(17 of 299) of parents who were not quarantined. Another study19 of hospital staff examined symptoms of depression 3 years after quarantine and found that 9% (48 of 549) of the whole sample reported high depressive symptoms. In the group with high depressive symptoms, nearly 60% (29 of 48) had been quarantined but only 15% (63 of 424) of the group with low depressive symptoms had been quarantined.

All other quantitative studies only surveyed those who had been quarantined and generally reported a high prevalence of symptoms of psychological distress and disorder. Studies reported on general psychological symptoms, emotional disturbance, depression, stress, low mood, irritability, insomnia, post-traumatic stress symptoms (rated on Weiss and Marmar's Impact of dependency symptoms were positively associated with having been quarantined in health-care workers. In a multivariate analysis, after controlling for demographic factors, having been quarantined and having worked in a high-risk location were the two types of exposure significantly associated with these outcomes (for quarantine: unadjusted mean ratio 0•45; 95% CI 1•02–2•65).

After quarantine, many participants continued to engage in avoidance behaviours. For health-care workers, being quarantined was significantly and positively associated with avoidance behaviours, such as minimizing direct contact with patients and not reporting to work. A study of people quarantined because of potential SARS contact noted that 54% (524 of 1057) of people who had been quarantined avoided people who were coughing or sneezing, 26% (255) avoided crowded enclosed places, and 21% (204) avoided all public spaces in the weeks following the quarantine period. A qualitative study reported that several participants described long-term behavioural changes after the quarantine period, such as vigilant hand washing and avoidance of crowds and, for some, the return to normality was delayed by many months.

Stressors during quarantine

Duration of quarantine

Three studies showed that longer durations of quarantine were associated with poorer mental health specifically durations specifically, post-traumatic stress symptoms, avoidance behaviours, and anger. Although the duration of the quarantine was not always clear, one study showed that those quarantined for more than 10 days showed significantly higher post-traumatic stress symptoms than those quarantined for less than 10 days.

Fears of infection

Participants in eight studies reported fears about their own health or fears of infecting others and were more likely to fear infecting family members than those not quarantined. They also became particularly worried if they experienced any physical symptoms potentially related to the infection and fear that the symptoms could reflect having the infection continued to be related to psychological outcomes several months later. Conversely, one study found that although very few participants were extremely concerned about becoming infected or transmitting the virus to others, those who were concerned tended to be pregnant women and those with young children.

Frustration and boredom

Confinement, loss of usual routine, and reduced social and physical contact with others were frequently shown to cause boredom, frustration, and a sense of isolation from the rest of the world, which was distressing to participants. This frustration was exacerbated by not being able to take part in usual day-to-day activities, such as shopping for basic necessities or taking part in social networking activities via the telephone or internet.

Conclusion

Overall, this Review suggests that the psychological impact of quarantine is wide-ranging, substantial, and an be long lasting. This is not to suggest that quarantine should not be used; the psychological effects of not using quarantine and allowing disease to spread might be worse. However, depriving people of their liberty for the wider public good is often contentious and needs to be handled carefully. If quarantine is essential, then our results suggest that officials should take every measure to ensure that this experience is as tolerable as possible for people. This can be achieved by: telling people what is happening and why, explaining how long it will continue, providing meaningful activities for them to do while in quarantine, providing clear communication, ensuring basic supplies (such as food, water, and medical supplies) are available, and reinforcing the sense of altruism that people should, rightly, be feeling. Health officials charged with implementing quarantine, who by definition are in employment and usually with reasonable job security, should also remember that not everyone is in the same situation. If the quarantine experience is negative, the results of this Review suggest there can be long-term consequences that affect not just the people quarantined but also the health-care system that administered the quarantine and the politicians and public health officials who mandated it.

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