

# Outcomes of SARS Survivors in China: Not Only Physical and Psychiatric Co-morbidities

## 中国严重急性呼吸综合征幸存者的现状：不仅是躯体和精神科合并症的问题

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### Abstract

The year 2013 marks the 10th anniversary of the outbreak of the severe acute respiratory syndrome (SARS). We present a comprehensive introduction to the current situation of surviving SARS victims in China where the disease originated and spread across the world 10 years ago.

**Key words:** Mental disorders; SARS virus; Social support; Survivors

### 摘要

2013年是严重急性呼吸综合征（简称SARS）疫症爆发10周年。10年前，SARS于中国爆发，其后疫情蔓延全球。本文详述SARS中国幸存者的现状。

**关键词：**精神障碍、严重急性呼吸综合征病毒、社会支持、幸存者

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March 2013 marks the tenth anniversary of the outbreak of a serious form of atypical pneumonia called severe acute respiratory syndrome (SARS), which spread rapidly around the world. In addition to briefly reviewing the ensuing chaos and loss of life, most media reports focused on the positive impact of SARS on strengthening public health capacity to enable early detection and response to diseases worldwide and, as a result, to mitigate the impact of numerous contagious diseases, including bird flu, H1N1 flu, and hand, foot and mouth disease.<sup>1,2</sup> However, the fate of surviving SARS victims and their current situation have not attracted sufficient attention, particularly in mainland China where

the disease originated and spread across the world.

On 15 March 2003, the World Health Organization declared that SARS was a worldwide health threat. Following an unprecedented level of international collaboration, the chain of person-to-person transmission of SARS had been broken by 5 July 2003.<sup>3</sup> In total, 8096 SARS cases were reported, causing 774 deaths, worldwide.<sup>4</sup> In addition to well-known somatic complications including avascular necrosis<sup>5</sup> and hypocortisolism,<sup>6</sup> psychiatric morbidities occurred in a substantial proportion of SARS survivors.<sup>7,8</sup> In a 4-year survey following SARS in Hong Kong, 42.5% of survivors (77/181) reported at least one diagnosable psychiatric disorder; the most common diagnoses were post-traumatic stress disorders (54.5%) and depression (39.0%), while 40.3% reported chronic fatigue.<sup>9</sup> In a 3-year study, fatigue and psychiatric comorbidities including depression, post-traumatic stress disorder, somatoform pain disorder, and panic disorder were common in SARS survivors.<sup>10</sup> Similar findings were reported from western countries.<sup>11,12</sup> The corresponding figures from China are lacking, probably due to inadequate funds and lack of a comprehensive nationwide health care and surveillance system.

In China, there were 5327 reported SARS cases and 349 deaths during the 2003 outbreak,<sup>4</sup> leaving thousands of survivors to find a path to recovery. There has been no registration system tracking SARS survivors; thus, figures on prevalence of SARS-related somatic complications and psychiatric morbidity are lacking. There have been only a few reports in the local media about the current situation of a

small self-help group of survivors in Beijing, but not about the majority of SARS survivors. The domestic media reported in 2009 that there were approximately 300 SARS survivors struggling with long-term complications in Beijing; 80% of these were forced to quit their jobs and 60% suffered from avascular necrosis, pulmonary fibrosis, or depression.<sup>13</sup> In the first few years after the SARS outbreak, reports about the aftereffects of SARS were banned in the media.<sup>14</sup> As a positive development later, both the central and local governments became aware of these problems and began taking steps to address SARS-related morbidity and reduce the financial burden on survivors. Within this context, one important step was the move in 2004 to establish an expert group in the Ministry of Health for patients suffering from SARS-related complications. In 2005, the Beijing Bureau of Health formally acknowledged the existence of SARS-related morbidity secondary to high-dose steroid therapy, and issued guidelines on its treatment.<sup>15</sup> However, public health insurance only covers avascular necrosis, pulmonary fibrosis and depression,<sup>14</sup> but not other SARS-related comorbidities. Complications occurring in many survivors do not reach the level of severity defined in these regulations; thus, these people are not covered by health insurance.<sup>14</sup>

Another big problem for SARS survivors is the lack of social and financial support. Unlike their counterparts in Hong Kong, in China the survivors suffering from serious physical and mental aftereffects and functional disability do not have access to specific relief funds.<sup>13</sup> Recently, around 100 SARS survivors with severe, ongoing health problems in Beijing formed a self-help group and campaigned for help. In response, the Beijing Disabled Persons Federation and the Red Cross Society of China began to provide basic subsidies for qualified survivors with serious physical and mental problems.<sup>15,16</sup>

As part of the 2003 SARS outbreak, a substantial proportion of cases were migrant workers, a marginal population in China comprising people aged  $\geq 16$  years who leave their original rural residence for over 3 months to take up temporary jobs in faraway urban regions.<sup>17</sup> Due to the transient nature of their employment, when migrant workers travel between rural and urban areas or between cities, they are not covered by health insurance as that is valid only in their original place of residence. We could not locate any report on SARS-related physical or psychiatric morbidities in this population. Finding a way to examine the current situation and provide support for SARS survivors in Chinese migrant workers constitutes another challenge.

In summary, given that the impact of SARS lasted and remained clinically significant in Chinese survivors, examining the patterns of physical and psychiatric morbidities in this forgotten population, providing appropriate treatments, functional and occupational rehabilitation, as well as social support are urgent health goals. This lack of attention highlights the need for the national and international community to act swiftly and effectively during an acute outbreak of a pandemic and put systems in place that allow

systematic tracking of affected populations to assess mid- and long-term effects, and develop appropriate health and assistance programmes to mitigate long-term adverse effects, should these become apparent.

## Declaration

The authors declared no conflicts of interest related to the topic of this article.

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