

# Mental Consequences of Covid-19 on Medical and Nursing staff

**Gianluca Isaia\*, Enrico Brunetti and Mario Bo**

*Department of Medical Sciences, Università degli Studi di Torino, A.O.U. Città della Salute e della Scienza di Torino, Italy*

## ABSTRACT

Covid-19 pandemic has had a significant impact on the population worldwide and especially on health workers that were required to increase their work fighting against an unknown virus. Several studies have been published since March 2020 on this topic outpointing psychological consequences on this specific population. Covid-19 represented an acute, sudden and disruptive event that marked everyday life forcing doctors and nurses to radically change their work and family routine.

## REVIEW METHODS

The present brief report underlines most relevant findings recently published on psychological consequences due to Covid-19 pandemic. This review has been performed searching on PubMed the following words: loneliness, depression, anxiety, concern, uncertainty, insomnia, stress and Covid-19, starting from March 2020.

## RESULTS

The Covid-19 pandemic has had an evident impact on the general population forced on the one hand to accept home confinement and on the other to live with the fear of contagion. The fear of not being able to resume the life to which one was accustomed for has generated and still generates uncertainty, anxiety and concern. This condition has had considerable prominence in all the media which have often reported the negative aspects characterized for example by the difficulty in finding basic necessities or by stories of loneliness and depression, but also the positive aspects such as artistic reactions and playful outcome of a good level of resilience.

The case of health workers and of all those who had to continue their work activity, increasing it in many cases, and often finding

themselves in close contact with people affected or potentially affected by coronavirus is different. For many of these, Covid-19 represented an acute, sudden and disruptive event that marked everyday life forcing them to radically change their family routine, but also laying the foundations for not insignificant psychological consequences. It is well known that all events involving public health over a wide geographic territory, due to their suddenness and uncertainty, lead to human insecurity and affect emotional behavior, are an important source of stress and therefore cause a series of psychological responses to stress. During the pandemic, tension, anxiety and other negative emotions manifested themselves all over the world, but mostly in the countries with the most positive cases, and quickly spread, generating a transversal psychological crisis that involved millions of people, albeit with different degrees. The medical-nursing staff engaged on the front line and therefore with the certainty of being in daily contact with coronavirus positive patients, had to endure enormous work pressure, as well as psychological, with non-negligible emotional consequences that still persist. Healthcare professionals directly involved in the management of the pandemic have had to face the trauma of being in an epidemic area, like the general population, but with the aggravating circumstance of having to actively face the

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**Address for correspondence:** Gianluca Isaia, Department of Medical Sciences, Università degli Studi di Torino, A.O.U. Città della Salute e della Scienza di Torino, Italy

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coronavirus infection, without having the suitable tools and with the constant risk of being contaminated. To this must then be added the partial failure of the therapies initially proposed and applied, a condition that generated a further increase in psychological pressure with consequent mental as well as physical symptoms. Medical-nursing staff working in hospitals in close contact with confirmed or suspected patients suffered greater psychological distress than the general population due to the higher probability of being infected and the concern that they could spread the virus to family, friends or colleagues. These considerations have also recently been confirmed by some scientific studies. In particular, a work published in *The Lancet Psychiatry* suggested that the rates of depression, anxiety, insomnia and symptoms of stress among medical personnel involved in epidemic prevention and control were 50.7%, 44.7%, 36.1% and 73.4%, respectively [1]. Previous studies have shown that depression, anxiety, and various other physical and mental symptoms were common consequences during a pandemic and that the most frequent mental disorders that occurred were anxiety disorders and increased depressive symptoms.

A recent study aimed at understanding the psychological distress status of medical personnel during the Coronavirus outbreak, conducted on health workers and university students in China revealed that in all provinces of China, medical personnel scored significantly higher in all items of psychological stress compared to university students ( $P < 0.001$ ), particularly in the epicenter of the pandemic, in Wuhan. It is interesting to note that the medical staff of Wuhan scored significantly higher than the group of doctors working in other areas of China with regard to the thought of being in danger, the possibility of becoming infected, the concern for family members ( $P < 0.05$ ), poor sleep quality, need for psychological guidance ( $P < 0.01$ ), while scores were significantly lower for confidence in winning the pandemic ( $P < 0.05$ ) [2].

In consideration of the early onset of Covid-19 in the Wuhan area compared to the rest of the world, already in February 2020 the Chinese health authorities had disclosed guidelines aimed at safeguarding the psychological stability of the entire Chinese population and, in particular, of the staff health directly or indirectly involved in the care of the sick. The approach was then disseminated and shared in other geographical areas scattered around the world, changing according to local needs and new knowledge that gradually was learned over time. To date, there are at least one hundred scientific publications of international importance that deal with the topic of stress in healthcare personnel during the coronavirus pandemic. The data collected in these studies show a heterogeneous picture that identifies significant psychological repercussions as a common line. Zang et al. [3] report that the significant increase in insomnia, anxiety, depression, tendency to somatization and obsessive-compulsive disorders has been documented in healthcare professionals directly affected by Covid-19 when compared with a control group not directly involved in the problem. In particular, an increase in anxiety of more than 30% and a four-fold increase in somatization disorder was observed.

An interesting fact is reported in a paper published by Mo et al. [4] who observed that the main sources of concern were mainly related to the health of their family members (especially children) and the total number of hours worked per week. Both of these aspects refer to the anxiety of not being able to preserve the tranquility of one's family environment both for the fear of acting

as a vector for the transmission of the virus in the family and for finding oneself in the need to put work before the affections.

Sleep disturbances have manifested themselves in most health care workers, but as Huang and Zhao report [5], in younger operators (under the age of 35) and generally less experienced, but also with younger families in need of more attention and in those who found themselves having to spend more than three hours a day in direct assistance to Covid-19 patients. Furthermore, it should not be forgotten that in the areas of the planet most affected by the pandemic, some health workers have found themselves in the terrible situation of having to prioritize assistance to the sick in hospital despite having family members affected by coronavirus at home or hospitalized in other departments, generating in them an unpleasant feeling of abandonment. As reported by Li et al. [6]. This condition gave rise to symptoms of indirect trauma such as loss of appetite, marked asthenia, easier irritability, an increase in inattention and fear in addition to the already mentioned sleep disorders.

To these largely predictable concerns were added, however, two other concerns related more to organizational phenomena. In fact, Dai et al. [7] observed that out of 4,600 respondents, 52.3% expressed anxiety related to the use of personal protective equipment (PPE) and 48.5% to violence directed at doctors by patients' families [7].

In particular, the absence of PPE available in large quantities, at least in the early stages of the pandemic, and the uncertainty about their actual usefulness given the too many obscure points on the possible routes of contagion that initially were not known with certainty exposed doctors, nurses and other operators to doubt that they are adequately protected, inevitably generating the anxiety of having to face an unknown virus without the adequate weapons not only for attack, but also for defense. In essence, there was the perception of not being able to adequately protect oneself aggravated by the awareness of having to experience an extremely greater potential exposure to the virus. The perception of feeling weak and easily attacked was then partly confirmed by the high number of deaths that occurred among health personnel at least in the early stages of the disease.

For these reasons, health professionals have suffered greater psychological stress than other workers who, although worried about losing their job and not being able to return to previous habits, could still find psychological refreshment in the knowledge that proper social isolation could at least save them. The life. This certainty was instead denied to those who had to face the pandemic for work obligations and for self-denial.

But not all healthcare workers involved in the pandemic have had similar repercussions. In fact, a category has been identified that is particularly exposed to the risk of psychological disorders. Female nurses appear to have suffered the most psychological damage. More generally, three criteria have been revealed as the main risk factors for developing insomnia, anxiety, obsessive-compulsive disorders and depression: 1) working in direct contact with the sick; 2) belong to the female sex; 3) reside in rural environments. Among medical personnel, women also experienced complaints to a greater extent when compared with male colleagues.

The factors that most implemented the risk of psychological disorders were, in addition to those already mentioned, having to work under a high level of pressure, without a specific and known

routine and for many hours longer than usual. The radical and sudden change in the way of working, characterized by an increase in individual responsibility and strict protective measures that required greater preparation and longer times before entering the ward, have further undermined the already fragile certainties of health workers [8].

## CONCLUSION

Having made these considerations and analyzing in detail the problems experienced, it is not possible to overlook the fact that the work directly involved in the fight against the coronavirus has stolen precious time from health professionals who have therefore neglected to take care of themselves and their social relationships. In particular on this last point, it is good to remember that on many occasions there have been episodes of intolerance and requests for social distancing towards people working in hospitals, in the suspicion that they could carry the virus. This, added to the tendency to increase the distance from one's family in order to preserve them, has often generated the unpleasant feeling of feeling isolated and alone, almost as abandoned, in a world that was no longer the same as a few weeks before.

In the face of all the data reported that underline the devastating effects of a pandemic on the entire population, there is a smaller number of scientific publications that indicate some strategies to be implemented now as in the future to reduce the risk of psychological symptoms related to a condition such as the one we have experienced and that we are partly still experiencing. In particular, one should not feel guilty of experiencing violent emotions, such as anger, irritability or mood swings, as these must be interpreted as understandable and natural reactions to a stressful event of a high entity. The health care worker who experiences these emotions must consider them normal and probably must accept that sooner or later they manifest themselves without interpreting them as a sign of emotional imbalance prelude to persistent emotional instability.

In addition, it is extremely important to preserve essential needs without neglecting breaks, a healthy diet and adequate physical activity and above all without feeling guilty about even thinking about yourself. Furthermore, international literature suggests the practice of sharing one's experiences with work colleagues as the perception of experiencing feelings and sensations similar to those experienced by others makes the load less heavy. Finally, much attention should be paid to maintain strong and close social relationships in the private sphere, a condition that is essential to help preserving a good emotional state.

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