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COVID-19, Mental Health and Its Relationship with Workplace Accidents

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ABSTRACT

The general objective of this article is to show the relationship that exists in the COVID-19 pandemic, the mental health of people and the propensity for work-related accidents in companies. Various results are shown that detail how COVID-19 has generated and is generating mental alterations in people such as post-traumatic stress disorder, PTSD for its acronym in English. Likewise, data are presented that report the influence of mental health as a precursor to workplace accidents in different industries, with which it can be concluded that COVID-19 needs a comprehensive approach in companies to prevent it from negatively impacting workers and they end up accident during their daily work. Some concrete actions are proposed to promote and avoid in companies so that workers can be better managed in times of a COVID-19 pandemic.

KEYWORDS

COVID-19; mental health; occupational accidents; PTSD; Peru; distress

1 Introduction

The COVID-19 pandemic has exposed the weaknesses of the healthcare system and public health policies globally [1–3]. Particularly, the lack of organization support for healthcare workers became evident [4], causing an increase in the desire of healthcare workers to leave their jobs due to work overload and mental distress [5–7]. The general public was massively exposed to fake news [8] and conspiracy theories [9], which increased mental distress causing an increase in the search of preventive and/or curative measures with unproven drugs self-medication [2,10] and the use of medicinal plants [2,11]. It also affected the intention of the general public to get vaccinated [12]. Because of the imposed mandatory quarantine various industries were severely affected such as small and medium-sized businesses [13,14], sports [15], hospitality [16,17], education [18–20], healthcare [21], circular economy [22], entrepreneurship [23], technology [24], which at the same time caused price variation in lower goods [25], intention to purchase online [26] and a high unemployment rate [27,28]. The COVID-19



pandemic has changed the way people work, added mental distress, concerns and a general sense of uncertainty for their health and work status, which can distract workers and make them prone to suffer work-related accidents. We present the evidence and the conceptual relationship between mental health and work-related accidents.

2 Conspiracy Theories and Mental Health

Since its appearance in late 2019, COVID-19 has gradually caused various negative impacts on the population. These negative effects became more evident as strict quarantines were imposed in many countries causing people to change their daily routine spending many hours at home without contact with close relatives, co-workers and friends [29,30]. Another aspect was the proliferation of fake news (hoaxes), which caused misinformation, confusion and anguish in people that did not know if the information was real and overall feeling more exposed to risks that were not necessarily real [8]. In parallel, an exponential increase in conspiracy theories was also observed, causing division and antagonism between the people who believe in them and the ones who do not [31]. Conspiracy theories form a set of beliefs, practices and even its own language, leaving its mark on the personality of those who share it, which explains the great power that holds with the masses [31]. Conspiracy theories can be defined as the efforts made by a specific group, usually a minority, to understand the cause of an event by creating arguments based on secret group conspiracies rather than trying to understand them as random processes or natural flow [32]. Social crises such as those suffered in the postwar period and during events as lethal as the current COVID-19 pandemic triggers the creation or the resurgence of old conspiracy theories that are mixed with the present to generate new conspiracy theories such as the anti-vaccine movement [33,34]. Although most conspiracy theories are incorrect or only based on assumptions, they allow certain people to find some logical reason for things. This situation of uncertainty and lack of control when the origin of a phenomenon or a pandemic cannot be answered makes them easy to follow any explanation, without stopping to reason about its coherence or evidence.

Some examples of conspiracy theories during the COVID-19 pandemic include: the pandemic is a lie and that governments only seek to scare the population. Thus, they are convinced that there are no viral infections, and will go out to carry out their daily activity without a mask, generating a greater collapse of the healthcare system and the negative impact on the economy [9]. Another common example is that since it is believed that there are economic interests behind the COVID-19 pandemic, they use inexpensive and unproven means to prevent or treat COVID-19 such as ivermectin, colloidal silver and chlorine dioxide [2]. The unfortunate thing about these conspiracy theories is that they bring negative results such as spreading disinformation [35,36] and reduce social distancing [37]. Recently our research team has reported that the belief in conspiracy theories can be predictors of mental health in healthcare workers [38]. Furthermore, people with previous medical conditions, psychiatric illness or substance use abuse are at an increased risk of mental illness due to COVID-19 pandemic [39,40], which has been reported worldwide [41–51]. An altered mental health state can have different repercussions in people because of their work status. Work activity has been reported to play a role in the incidence and recovery of post-traumatic stress syndrome (PTSD) in Italy [52], United States [53], Saudi Arabia [54] and China [55].

3 Mental Health and Work-Related Accidents

People with altered mental health due to various causes are in a more vulnerable condition for work-related accidents. It has been reported, before the COVID-19 pandemic, that nurses in Japan with poor mental health were more prone to occupational accidents [56]. It has also been reported that workers at a steel company in Iran, before the pandemic, with high levels of stress had an increased propensity for occupational accidents [57]. This evidence should be taken with great attention since due to the COVID-19 pandemic and social isolation many people stopped working reducing temporarily the propensity to work-related accidents. However, as workers begin to return to factories, construction and

various physical spaces with a high risk of occupational accidents, their current mental health state after this pandemic could play a role in the occurrence of work-related accidents. To the best of our knowledge there is only one recent study that assessed the couriers' safety and health risks before and during the COVID-19 pandemic in Israel [58]. It was reported that more than 60% of the couriers reported increased stress due to the COVID-19 pandemic [58]. Furthermore, stress and work overload (amount of working hours and shift duration) were related to accidents on the road and musculoskeletal pains [58]. It is important to mention that the COVID-19 pandemic not only altered the mental health state, but social isolation has reduced the time of physical activity, causing a reduction in muscle mass, flexibility and cardiovascular performance [59–61]. Thus, it is expected that response time and physical work performance in construction sites and factories that handle heavy machinery, drive or perform high-risk activities could be impaired and can increase the risk for work-related accidents.

4 Concrete Actions before Returning to Work

During the COVID-19 pandemic various approaches were proposed to cope and manage the mental health of workers, such as the ones that continued working such as emergency responders, police and military, food and customer health. Different approaches were also implemented for remote workers and people taking care of COVID-19 infected patients and chronic patients [62]. Even though each person has the ability to find different coping mechanism against mental distress, stress and PTSD, some recommendations to promote and other to avoid have been published [63]:

- Promote: Positive thoughts, exercise regularly, balanced diet, relaxation exercises, socialization (online), and take breaks during the work routine.
- Avoid: Substance abuse, consistently eating very fatty or sugary foods, excessive online activity, excessive television viewing, focus on the negative aspects of COVID-19, distribute fake news (hoaxes), and believe in fake news (hoaxes).

In addition, we recommend companies to revise their Corporate Social Responsibility plans to offer constant accompaniment of workers to meet their personal demands and avoid unfortunate consequences on the workers' health and business performance. To the workers we recommend to consciously self-evaluate your weight, health status, mental health and overall, your capacity or incapacity to communicate how you feel internally and externally. Furthermore, ask for retraining if you operate machinery or if you drive, and request protective personal equipment and safety equipment if you perform physical activity. The world took a step back in most of its economic activities and had to be reactivated, our bodies and mind also had to step back to adapt for the effects of the pandemic, then it is only logical to go through a re-learning curve to return to our work activities.

5 Conclusion

There is conceptual correlation between mental health and propensity of work-related accidents. Companies must take preventive actions and evaluate the effect on the mental health of their workers to prevent work-related accidents. Workers must self-evaluate and request for re-training or additional tools or equipment in order to feel comfortable with their job responsibilities, especially the ones with high risk of work-related accidents. Further studies to evaluate the mental health and propensity of work-related accidents in different types of work is warranted.

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