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COVID-19 - A Short-review of the pandemic's mental health impact, personality traits, economics, eating disorder, homeless and education

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Abstract

During the last month of 2019 and the first trimester of 2020, a new infective disease has rapidly become a worldwide emergency, to the point of being declared a global pandemic by the World Health Organization on 11 March 2020. The Coronavirus 2019 disease (COVID-19) has reached 180 countries since 2 April 2020. The goal of this study is to examine scientific literature concerning the impact of COVID-19 on mental health of different slices of population. The literature referring to past pandemics has shown the role of fear and its negative psychosocial consequences on population's quality of life. Inadequate knowledge about COVID-19 and unconfirmed news can increase anxiety and fear experienced by the public. It is a great responsibility for government to manage efficiently this emergency, and psychological wellbeing of the population should not be being underestimated in the develop of future plains. Until the end of the pandemic, information about the psychological state of vulnerable population should be monitored and used in order to create adequate governmental interventions.

Keywords: Covid-19; Social; Psychological Impact; Review; Medical.

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In order to complete this short-review a number of scientific researches has been considered.

Considering the remarkable number of publications about this topic (over 70,000 according to the World Health Organization; WHO, 2020), a preliminary selection was done. The criteria of selection where (I) relevance in the field of Psychology, (II) date of publication (more recent articles have been preferred, range April-August 2020, however, the most interesting articles published before this date have not been excluded) and (III) number of citations (at least greater than or equal 1).

The impact of Covid-19 on the general population

During the last month of 2019 and the first trimester of 2020, a new infective disease has rapidly become a worldwide emergency, to the point of being declared a global pandemic by the World Health Organization on 11 March 2020. The Coronavirus 2019 disease (COVID-19) has reached 180 countries since 2 April 2020 and resulted in the blocking of commercial, educational, and non-essential activities. Symptoms of COVID-19 includes fever, fatigue, dry cough, aches and pain, sore throat, diarrhea, conjunctivitis, headache, loss of taste or smell, rash on skin, difficult breathing, chest pain, loss of speech or movement (WHO, 2020). The mortality rate has changed during the last months: the current esteem is between 4.3% and 11% (Wang et al., 2020). Individuals with chronic health conditions such as asthma, hypertension, diabetes and chronic obstructive pulmonary disease are more susceptible to coronavirus infections (Tsai et al., 2019), and individuals with comorbidities have a high probability of contracting the infection than general population (Guan et al., 2020). In addition to physical health consequences, the virus has led to several psychological problems (e.g. Santini et al., 2020). Scientific literature concerning past pandemics has shown the role of fear and its negative psychosocial consequences on population's quality of life (e.g. Pappas et al., 2009). Fear (often influenced by sensationalist journalism) can make people fluctuate between denials and phobic behaviors and can cause stigma toward those who are perceived as vehicle of infection (e.g. Pappa et al., 2009). Several psychological diseases, such as anxiety disorders and depression have been associated with fear during past pandemics, with a consequent worsening of population's quality of life (e.g. Ford et al., 2018). The following brief review proposes to analyze the mental health impact of the Covid-19 pandemic in relation to psychological aspects in the general population, in the community and in individuals. WHO has defined mental health as "a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community" (WHO, 2020). This ability is underpinned by six core psychological elements: (1) self-esteem and self-acceptance, (2) the ability to make sense of life, (3) autonomy, (4) interpersonal relational skills, (5) environmental mastery, and (6) personal growth

(Mukhtar, 2020). Mental and emotional health problems have become a major concern due to the COVID-19 pandemic (Spoorthy, Pratapa, Mahant, 2020). Many people have in fact experienced high levels of anxiety, anger, confusion, and post-traumatic stress symptoms (Pakpur & Griffiths, 2020). This reflects the impact of pandemic on individuals' mental health. Several studies have reported that social distancing, self-isolation, quarantine, economic problems are among the main factors that have contributed to the general increase of sadness, fear, frustration, the sense of helplessness, loneliness and nervousness in the population (Ahorsu et al., 2020). Social distancing refers to the practice of maintaining a greater than usual physical distance from other people or of avoiding direct contact with people or objects in public places during the outbreak of a contagious disease in order to minimize exposure and reduce the transmission of infection (Merriam-Webster, 2020; Caley et al., 2008). Fear of COVID-19 has also facilitated the development of psychiatric symptoms such as depression, numbing, stress, and anxiety in individuals without significant clinical history (Shingemura et al., 2020). In a psychosocial perspective, it is possible that the fear of contagion can generate aggressive behavior toward infected individuals or presumed ones (Ho et al., 2020). Furthermore, an alarming increase of domestic violence episodes has been observed during the lockdown in China (Lee, 2020). This could further aggravate the psychological distress experienced by the population and create tensions or discrimination within the community.

Healthcare Professional

Front-line healthcare professionals have experienced extremely high stress during COVID 19 emergency (Khan et al. 2020). Higher level of depression and anxiety have been than in low-risk healthcare professional (Pappa et al., 2020). A higher level of contagion fear has been registered, probably due the higher exposition to pathogens (Ho et al., 2020). Furthermore, health care workers employed in intensive care wards, emergency wards and isolation wards are more likely to develop psychological disorders such as fatigue, sleep disorders, health problems than healthcare workers employed in other wards (Ho et al., 2020). Experienced fear can be influenced by the lack of protection devices such as masks, gloves, and hand sanitizer (Cao et al., 2020).

University, College Students and Schoolchildren

Strict isolation measures have caused the temporary closure of kindergartens, schools, and universities all over the world (Viner et al., 2020). This closure has predictable resulted in a significant influence on the student population's mental health (Cao et al., 2020). A recent study has shown that off-site students who live far from their families suffer significantly more than students who live near or together with family

(Sahu, 2020). Particularly relevant were probably the fear of contagion and the possibility of not being able to see family members for long periods of time, as well as concern for the health of loved ones (Zhai and Du, 2020). Although current scientific evidence suggests that children and teenagers are less vulnerable to COVID-19 infection (Ghosh et al., 2020) their psychosocial functioning has been affected by the pandemic (Piceci, L., Sgorlon, A., & Peluso Cassese, F. (2020)

Prolonged quarantine periods, school closures, lack of outdoor activities, changes in eating habits, sleep disturbances, potential increased exposure to domestic violence and abuse are all contributing factors to the increase in mental health problems (e.g. distress, impatience, irritability, neuropsychiatric problems in children and teenagers) (Ghosh et al., 2020). Teenager with existing psychopathological conditions need special attention to cope with quarantine and post-quarantine problems. Indeed, the closure of schools caused a significant interruption in established routines that normally can help these students cope with their psychological disorders. The impossibility to attend school gave rise to stressful life situations and accentuated family conflicts (Lee, 2020). Furthermore, the closure of schools could have worsened existing psychological symptoms and it may have affected normal daily activities such as personal hygiene. Young people on the autism spectrum may also experience additional social difficulties after the easing of quarantine measures (Lee, 2020).

Economy and work activities

The quarantine measures have led to the closure of several work facilities (e.g. restaurants, bars, theaters, theatres, gyms, shopping centers, companies) (Policy Responses to COVID19). This has in several cases resulted in temporary unemployment and potential long-term damage to national economies, particularly in developing countries (Gostin and Wiley, 2020). This condition has generated a significant impact on individuals' mental health (Jain, 2020). Some activities have particularly suffered from this condition due to the strict health controls that had to be introduced in order to cope with the possible viral spread (e.g. restaurants, gyms).

Homeless population

A slice of the population that is particularly sensitive to psychological and health problems related to COVID-19 is certainly represented by the homeless people. In fact, compared to the general population, homeless people are more likely to have previous psychopathological conditions or other chronic medical disease, including bipolar personality disorder and schizophrenia (Tsai and Wilson, 2020). Homeless people are also more likely to have a substance addition than general population. This leads to greater vulnerability to viral infections (Tsai and Wilson, 2020). Homeless individuals represent a silent minority in society, often not included in state censuses and with fewer

opportunities for access to care services (Singh, Koiri, Shukla, 2018). Previous studies have documented that during previous SARS and influenza pandemics, the homeless population was more vulnerable to the effects of the aforementioned diseases, with higher mortality rates and a significantly lower percentage of hospitalizations and health treatments (Leung et al., 2008). Regarding the COVID-19 pandemic, it appears that homeless people are at greater risk of infection with acute respiratory syndromes, also due to the impossibility of self-isolation (Albon, Soper, & Haro-Chest, 2020). Among homeless individuals with substance addiction, the temporary closure of assistance services probably represented an additional risk factor for possible relapses, with a consequent increase in mortality (Volkow, 2020).

Eating disorder

Pandemic may also have had a significant impact on patients with eating disorder (Fernández-Aranda F, Casas M, Claes L, et al., 2020). It is possible that the interpersonal function impoverishment typical of this population is more difficult to manage when social distancing is in place (Touyz, et al., 2020). Regarding eating habits, the absence of clear routines and temporal or spatial references, such as lunch breaks in company canteens, could be counted among the factors that have worsened the quality of life of patients with eating disorders. For example, the absence of structures that usually supported the person's eating plans could have led to an increase in food consumption outside pre-established meals, fomenting the onset of binge eating episodes (Heriseanu, Hay, Corbit, Touyz, 2017). Furthermore, the government recommendation of limiting non-essential shopping activity, with the perceived scarcity of certain food items, may have increased attention on food and indirectly encouraged individuals to buy certain supplies such as snacks and long shelf life food (Rodgers et al. 2020). This situation may have played some part in the onset of binge eating episodes (Waters, Hill e Waller, 2001). In addition to the aforementioned risk factors, fear of contracting COVID-19 infection has likely led people to experience greater concerns regarding the quality of food or the possibility that it could be a vehicle for contagion (Rodgers et al., 2020). Indeed, disgust responses have been shown to be higher and more related to anxious experiences among individuals with eating disorders (Anderson et al., 2018; Davey & Chapman, 2009; Harvey, Troop, Treasure, & Murphy, 2002). This can increase the adoption of restrictive food plans. Although the directionality of these relationships is unclear, anxiety and disgust combined with fear of contamination could increase the risk of developing eating disorders or lead to a worsening of existing concerns (Rodgers et al., 2020).

Personality traits and prophylactic behaviors

Some studies have shown that the spontaneous adoption of social distancing measures could be linked to certain personality traits (Jones and Salathé, 2009). Boone et al.

(1999) have shown that personality style has a strong impact on cooperative behavior (Tyler and Blader, 2001). Salgado has shown how the personality traits of the Big Five are able to predict deviant behavior, such as the violation of institutional rules (Salgado, 2002). Indeed, an association between high scores on the neuroticism scale and high levels of concern for one's own health status has been observed (Van Diik et al., 2016). This anxious state could be related to a greater likelihood of maintaining all those sanitary habits essential to control the spread of the disease in the population (Meshram et al. 2017; Shanker et al. 2013). People who score low on the agreeableness, extroversion and open-mindedness scales are more likely to avoid infectious diseases (Mortensen et al. 2010), possibly due to the lower chance of engaging in risky sexual activities or substance abuse (Bogg and Roberts, 2004).

The implementation of protective behaviors such as social distancing also appears to be related to risk perception (Caley et al. 2008). Risk perception can be defined as the personal assessment that is made towards potentially dangerous objects or activities (John Handmer & Paul James, 2007). During a respiratory disease pandemic, risk perception is strongly associated with the implementation of preventive behaviors, such as frequent hand washing and avoidance of non-essential physical contact (Leppin and Aro, 2009). Altruism, empathy and the desire to assist others are pregnant characteristics of "agreeable" individuals (Graziano et al., 2007), who are more likely to greater priority to social interactions. The engagement in social practices without practicing social distancing measures can significantly increase the likelihood of being infected with COVID-19. Furthermore, traits of conscientiousness and neuroticism have been shown to be positively associated with the application of social distancing (Abdelrahman, 2020).

Italian population's behavior

Soraci et al (2020) analyzed Italian population's behavior on a 2000 participants sample. Specifically: "(...) Sleep was judged average by 35.8% of participants, bad only by 10.2%; then moving on to health; during lockdown, 34.4% did not gain weight, 27.6% gained some weight. 52.5% spent more time cooking, 49.6% spend more time on PC. 80.4% reported that they had never violated the instructions and / or recommendations of the lockdown, only 0.7% answered "very often". The 73.5% went out for shopping; 9.8% did not left home. 45.6% considered themselves well informed about the pandemic; 67% reported TV as the main source of information, 60% has utilized dedicated websites, 55% has utilized social networks. 26% self-reported as slightly scared; 23.3% not very anxious; 15.1% "very often anxious" and 18.8% "never anxious". 40.9% said they were not depressed at all, 9.4% very much; and to the question: does Covid scare you? 30.3% answered 3 on a scale from 1 to 5, 34.9% answered "I'm not at all afraid of dying from the virus", and only 6.6% reported a high level of fear" (...) (Soraci, P., Cimaglia, R., & Puoti, C., 2020, May 13).

Final remarks

The pandemic condition has undoubtedly influenced millions of people lifestyles, bringing, has happen with every great change, fear and anxieties. The task of researchers must be to constantly monitor the psychosocial evolution of this historical moment, to ensure maximum assistance for professionals, legislators, and citizens. Media coverage of the pandemic has proven to be an influential factor in the perception of danger. 24/7 coverage of COVID-19 on news channels, sensational headlines in national newspapers, disinformation on social media have potentially stimulated feelings of anxiety and fear in the population (Ho et al. 2020). Inadequate knowledge about COVID-19 and unconfirmed news can increase anxiety and fear experienced by the public (Ho et al. 2020). It is a great responsibility for government to manage efficiently this emergency, and psychological wellbeing of the population should not be being underestimated in the develop of future plains. Until the end of the pandemic, information about the psychological state of vulnerable population should be monitored and used in order to create adequate governmental interventions.

Compliance with Ethical Standards

Conflict of interest

The author declares that they do not have competing interests.

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