

## The psychological and social impact of Covid-19: new perspectives of well-being

Valeria Saladino<sup>1</sup>, Davide Algeri<sup>2</sup>, Vincenzo Auriemma<sup>3</sup>

<sup>1</sup>Department of Human Sciences, Society and Health, University of Cassino and Southern Lazio of Cassino, Cassino, Italy  
([v.saladino@unicas.it](mailto:v.saladino@unicas.it))

<sup>2</sup>Business Coach Psychologist, Milan

<sup>3</sup> Department of Political and Social Studies, Sociology, University of Salerno, Fisciano, Italy

### \*Corresponding author:

Valeria Saladino

Department of Human Sciences, Society and Health, University of Cassino and Southern Lazio of Cassino, Cassino, Italy  
([v.saladino@unicas.it](mailto:v.saladino@unicas.it))

### Abstract

The recent Covid-19 pandemic has had significant psychological and social effects on the population. Researches has highlighted the impact on psychological well-being of the most exposed groups, including children, college students and health workers, who are more likely to develop post-traumatic stress disorder, anxiety, depression and other symptoms of distress. The social distance and the security measures affected the relationship among people and their perception of empathy towards others. From this perspective, telepsychology and technological devices assume an important role to decrease the negative effect of the pandemic. These tools present benefits which could improve psychological treatment of patients online, such as the possibility to meet from home or from the workplace; saving money and time and maintaining the relationship between therapists and patients. Aim of this paper is to show empirical data from recent studies on the effect of the pandemic and reflect on possible interventions based on technological tools.

**Keywords:** Covid-19; Empathy; Psychological Disease; Psychotherapy; Social Distancing; Telepsychology

### Authors contribution statement

VS, DA, VA conceptualized the contribution. VS wrote the paper, VA reviewed the manuscript and VA provided the critical revision processes as PI. All authors approved the submission of the manuscript.

## **Introduction**

Covid-19 pandemic led to a prolonged exposure to stress. As a consequence, researchers showed an increased interest in measuring social and community uneasiness in order to support psychologically the population. This increased attention might help in managing the current situation and others possible epidemics and pandemics. The security measures adopted in managing the pandemic had different consequences on individuals, according to the social role invested. Some segments of population seem to be more exposed to the risk of anxious, depressive and post-traumatic symptoms, as they are more sensitive to stress.

The following article has two focuses of interest: a) the evaluation of the psychological and social effects of the pandemic on the population, mostly children, college students and health professionals; b) the identification of new perspectives of intervention based on digital devices and in line with the social security measures and mental health promotion. Telepsychology, for instance, is a valid tool, effective in taking charge of the psychological suffering caused by the pandemic and in preventing the chronicity of the disease. The prolonged stress could involve anxiety, depression and inability to manage traumatic and negative emotions. Furthermore, the constant fear of contagion affects daily life and leads to social isolation, modifying human relations.

## **Covid-19 and at-risk population: psychological and social impact of the quarantine**

Studies of pandemics faced over time, such as SARS, Ebola, H1N1, Equine Flu and the current COVID-19, show that the psychological effects of contagion and quarantine is not limited on the fear of contracting the virus (Barbisch, Koenig, & Shih, 2015). There are some elements related to the pandemic which affect more the population, such as separation from loved ones, loss of freedom, uncertainty about the advancement of the disease and the feeling of helplessness (Li, Wang, 2020; Cao, Fang, Hou, Han, & Xu et al., 2020). These aspects might lead to dramatic consequences (Weir, 2020) such as the rise of suicides (Kawohl & Nordt, 2020). Suicidal behaviors are often related to the feeling of anger associated with the stressful condition widely spread among people who lived/live in the most affected areas (Miles, 2014);(Suicide Awareness Voices of Education, 2020; Mamun, & Griffiths, 2020). In light of these consequences, a carefully evaluation of the potential benefits of the quarantine is needed, taking into account the high psychological costs (Day, Park, Madras, Gumel & Wu, 2006; Mazza, Ricci, Biondi, Colasanti & Ferracuti, 2020).

As reported in a recent survey administered during the Covid-19 pandemic, children and young adults are particularly at risk of developing anxious symptoms, (Orgilés, Morales, Delvecchio, Mazzeschi, & Espada, 2020). The research involved a sample of 1143 parents of Italian and Spanish children (range 3-18). In general, parents observed emotional and behavioral changes in their children

during the quarantine: symptoms related to difficulty concentrating (76.6%), boredom (52%), irritability (39%), restlessness (38.8%), nervousness (38%), sense of loneliness (31.3%), uneasiness (30.4%), and worries (30.1%). From the comparison between the two groups - Spanish and Italian parents - it emerged that the Italian parents report more symptoms in their children than the Spanish parents. Further data collected on a sample of college students at the time of the spread of the epidemic in China showed how anxiety levels in young adults are mediated by certain protective factors, such as living in urban areas, the economic stability of the family and cohabitation with parents (Cao, et al., 2020). On the contrary, having infected relatives or acquaintances leads to a worsening in anxiety symptoms. Furthermore, the economic problems and the slowdown in academic activities are related with anxious symptoms (Alvarez, Argente, & Lippi, 2020). In addition, an online survey conducted on the general population in China found that college students are more likely to experiencing stress, anxiety and depression than others, during the pandemic (Li, Wang, Yang, Lei, & Yang, 2020). These results suggest to monitor and promote mental health of youths in order to reduce the negative impact of the quarantine (CSTS, 2020); (Li, Wang, Yang, Lei, & Yang, 2020).

Health care workers (HCWs) are another segment of population particularly affected by stress (Garcia-Castrillo, Petrino, & Leach, 2020); (Lai, et al., 2020). HCWs are at risk to develop symptoms common in catastrophic situations, such as Post-Traumatic Stress Disorder (PTSD), Burnout Syndrome, physical and emotional exhaustion, depersonalization, dissociation (Grassi & Magnani, 2000); (Mache, Vitzthum, Klapp, & al., 2012); (Øyane, P., Elisabeth, Torbjörn, & Bjørn, 2013). However, an epidemic presents different peculiarities compared to a catastrophic event, for instance the stigmatizing attitudes in particular towards health professionals, who are in daily contact with the risk of infection (Brooks, et al., 2020). During SARS, up to 50% of healthcare professionals suffered from acute psychological stress, exhaustion and post-traumatic stress, caused by the fear of contagion of their family members and the prolonged social isolation (Tam, Pang, Lam, & Chiu, 2004); (Mauder, W., & K., 2006).

As a consequence of the pandemic, the health professionals overworked suffering high level of psychophysical stress (Mohindra, Suri, Bhalla, Singh, 2020). Health professionals, also, lived/ live in daily life a traumatic condition called Secondary Traumatic Stress Disorder (Zaffina, et al., 2014), which describes the feeling of discomfort experienced in the helping relationship when treatments are not available for all patients and the professional must select who can access to them and who cannot (Roden-Foreman, et al., 2017); (Rana, Mukhtar, Mukhtar S., 2020). Data from a survey on 1,257 health care workers who assisted patients in Covid-19 wards and in second- and third-line wards, showed high percentages of depression (50%), anxiety (44.6%), insomnia (34%) and distress (71.5%) (Lai, et al., 2020). Also, the constant fear of contagion leads obsessive thoughts (Brooks, et al., 2020), increasing the progressive closure of the person and reducing social relationships. In line with these results, Rossi

et al. (2020) evaluated mental health outcomes among HCWs in Italy during the pandemic, confirming high score of mental health issues, particularly among young women and frontline workers. Furthermore, Spoorthy, Pratapa and Mahantc (2020) conducted a review on the gendered impact of Covid-19 and found that 68.7 %–85.5 % of medical staff is composed by women and the mean age ranged between 26–40 years. Also, women are more likely to be affect by anxiety, depression, and distress (Lai et al., 2020). Liang et al. (2020) also found a relation between age and depressive symptoms associated with pandemic. Indeed, the medical staff at younger age (<30 years) reports higher self-rated depression scores and more concern about infecting their families than older age. Staff >50 years of age reported increased stress due to patient's death, the prolonged work hours and the lack of personal protective equipment. Cai et al. (2020) also found that nurses felt more nervous compared to doctors.

As emerged by the recent literature, the promotion of psychological interventions on the specific population who is more likely to develop pathologies and suffering, is needed. The Lancet Global Mental Health Commission's observation (Patel, 2018) reported that the use of digital technologies can provide mental health interventions in order to reduce anxiety and stress levels and increase self-efficacy (Xiao, Zhang, Kong, Li, Yang, 2019; Kang, Ma, Chen, Yang & Wang et al., 2020).

### **Telepsychology: training and promotion of psychological well-being**

In order to reduce anxiety and depression symptoms widespread among the population, the World Health Organization (2019) and the Centers for Disease Control and Prevention (2020) proposed specific guidelines on the correct use of health protection with the aim to minimize the distress associated with health care professions.

At the same time, as a consequence of the emerging issues, psychotherapists provided psychological support online, addressing the technological challenge (Greenberg, Docherty, Gnanaprasagam, & Wessely, 2020); (Liu, Yang, Zhang, Xiangm, & Liu, 2020). In line with the technological progress, professional organizations promoted specific guidelines and policies related to customer protection, privacy, screening, evaluation, and development of self-help products (Duan & Zhu, 2020; Zhou, Snoswell, Harding, Bambling, & Edirippulige, 2020). Technological development in mental health foreshadows future trends that include "smart" mobile devices, cloud computing, virtual worlds, virtual reality and electronic games in addition to the traditional psychotherapy tools. In this perspective it is important to help future generations of psychologists and patients to collaborate in the potential growth areas, through education and training on the benefits and effectiveness of telepsychology (Maheu, McMenamin, & Posen, 2012).

Indeed, more awareness of the potentials of the online services is needed, exploring the main differences between the devices (chat, video-audio consultation, etc.) in order to use them in relation to

the specific purposes identified by the professional. For example, the Italian Service of Online Psychology conducted a study based on a service of helpdesk on Facebook. This service guided people in asking psychological help, working on their personal motivation. At the same time another helpdesk on Skype provided some psychological sessions via webcam (Gabri, Mazzucchelli, & Algeri, 2015). **In this line, telecounseling is a diffuse online method used by counselor and psychologists during the recent pandemic (De Luca & Calabrò, 2020).**

One of the future goals of public and private psychological organizations should be the promotion of specific training for psychologists and psychotherapists, with the following aims: a) developing the basic skills in managing the effects of a pandemic and of emergency situations; b) sensitizing patients to online therapeutic relationship, providing the main rules and benefits of the process (Stoll, Müller, & Trachsel, 2020); (Joint Task Force for the Development of Telepsychology Guidelines for Psychologists., 2013). On this line, a significant example is the Virginia Commonwealth University (VCU) which proposed PhDs in telepsychology, with the aim of training future psychologists in managing the psychological effects of the pandemic through an online psychology service (Baylor, Burns, McDonough, Mach, & Yorkstona, 2019). The service provided by the Virginia Commonwealth University had been effective in reducing anxiety, depression (Sadock, Perrin, Grinnell, Rybarczyk, & Auerbach, 2017) and hospital recoveries (Lanoye, et al., 2017). As shown, telepsychology assumes a key role in the improvement of health care. Online psychological services avoid geographical barriers and are suitable to become a useful integrated tool in addition to traditional psychotherapy (Perrin, et al., 2020).

### **Advantages of psychological support and online psychotherapy**

Online psychological services provide several advantages, especially in the current situation of pandemic. First of all, online services help people in a short period of time, reducing the risk of contagion and the strong feeling of anxiety in both, psychotherapists and patients, who feel uncomfortable in doing traditional psychotherapy due to the pandemic **(Békés & Aafjes-van Doorn, 2020)**. Furthermore, Pietrabissa and colleagues (2015) identified some of the main advantages of telepsychology, such as the decrease in waiting for the consultation, as it takes place from home or from the workplace; the saving time and expense - less travel and rental costs for the office - for those who provide the service and for those who use it. As reported by the authors, online psychological services facilitate access to people who struggle to find support close to their social environment, avoiding difficulties related to mobility. Also, online services help people who have less confidence in psychotherapy. Indeed, mostly online psychotherapy takes place in one's comfort zone, facilitating the expression of problems and feelings.

According to the situations, online services could provide different medium. For instance, the chat is a useful tool to establish a first assessment of a person who feels uncomfortable in using video. Indeed, the online psychotherapy is perceived as more "acceptable". John Suler defined the term *online disinhibition effect* demonstrating how the web, unlike the real life, leads to the failure of the hierarchical relationship based on dominant-dominated among individuals (Suler, 2004); this aspect, according to the author, allows a greater sense of freedom in expressing oneself and less concern related to judgment (*ibid.*). Other researchers (Mantovani, 1995); (Tosoni, 2004) have integrated to the construct of *online disinhibition effect* the concept of social space, emphasizing the role of the "situation", of the "social norms" (Brivio, Ibarra , Galimberti, & Cilento, 2010, p. 811), of the tools ("artifacts") and of the cyberplace which allow different levels of interaction. Each person has a different experience of the network and several levels of disinhibition. For instance, a mild disinhibition could be a person who chooses to ask for help talking with a psychologist about their problems; while a high disinhibition could be represented by flaming, an expression of online bullying or cyberstalking.

Online psychological services should be integrated with the various territorial services in order to provide the patients local references in relation to the specific health and economic needs. Finally, the possibility for the therapist and for the patient to record the sessions via chat and in audio / video mode - with the informed consent of the participants - (Wells, Moreno, Butler, Glassman, & al., 2015) provides another useful tool to compare the sessions and to underline the positive outcomes and the effectiveness of the therapeutic process. According to this perspective, online psychological support and psychotherapy become a resource for psychotherapists and patients in a co-build relationship (Algeri, Gabri, & Mazzucchelli, 2019).

### **Psychological and social suffering and the empathic process**

Analyzing the psychological impact of the quarantine, emerged the importance for individuals to feel integral part of the society, aspect often undervalued in psychological well-being. Experts of public health believe that social distancing is the better solution to prevent the spread of the virus. However, although it is not possible to predict the duration of the pandemic, we know very well the serious impact of these measures on the society, on relationships and interactions, in particular on the empathic process. In the early 90s empathy was described as a form of identification in the psychological and physiological states of others. This definition led to a debate between the disciplines of philosophy of psychology and philosophy of mind (Franks, 2010). Willard Van Orman Quine (1908 – 2000) renewed attention to the debate on empathy with a thesis on the development of language and mind in the analytical philosophy. According to Quine, the attribution of the so-called intentional states, through which the psychology commonly explains human behavior, is based on empathy (Treccani,

2020) and leads people to attribute beliefs, desires and perceptions (Quine, 1990), (Quine, Pursuit of Truth: Revised Edition, 1992). Analyzing this aspect within the recent situation of pandemic, an increment of antithetical positions and attitudes could be noticed. On the one hand, people identify themselves with those who suffer (neighbors, friends, relatives who are living stressful events) promoting activities such as the so-called “suspended expenses”. For instance, solidarity and humanitarian activities, food and medicine delivery for people who are unable to go to the supermarket. On the other hand, there is a part of the population who experiences a feeling of “forced empathy”. This aspect could be also emphasized by the use of technological devices which might lead to a depersonalization of relationships, forcing the sense of closeness, at least virtually. The hyper-connection of feelings becomes a way to reduce the self-isolation and its consequences, representing the contrary of the idea of Durkheim (1858-1917), who considered society as a specific entity, built on social facts (Durkheim, 1922). The sensation of “to be forced to feel” could lead people to distance themselves from others after the emergency situation, incrementing social phobias.

Also, human communication is changing, the formal question "how are you?" at the beginning of a conversation is no longer just a formality, as before the pandemic. For example, the relationship between employee and the manager is different, leading to more responsibilities in listening and understanding feelings expressed during the videocall, generating a forced reciprocity. Hence, the aforementioned "forced empathy" may be common in this period, as the social distance and the emergency situation make people want to be heard and appreciated and the simple question "how are you?" becomes an anchor to express fears and emotions (Pasetti, 2020).

## **Discussions**

The Covid-19 pandemic has affected the way people live interpersonal relationships. The lockdown was characterized by a different organization of daily life, with an incrementation of time at home and a reduction of distance through digital devices. This period has also seen an evolution in the concept of empathy, producing new perspectives in the study of the phenomenon according to a sociological and neurological point of view. Indeed, empathy - defined as the ability to understand and share the feelings of another - involves several elements, such as: a) social context and historical period of the individual; b) neurological mechanisms, and c) psychological and behavioral responses to feelings of others. The neuro-sociological perspective analyzes the mechanisms involved in the empathic process, focusing on human communication and interpersonal relationships (Singer, Lamm, & Decety, 2009). Specifically, in this historical period characterized by an increment in the man-machine relationship, neuro-sociology could become one of the principal sciences for the study of human relations and technology. «We live increasingly in a human-machine world. Anyone who doesn't

understand this, and who is not struggling to adapt to the new environment - whether they like that environment or not - is already being left behind. Adapting to the new, fast-changing, technologically enhanced context is one of the major challenges of our times. And that certainly goes for education» (Prensky, 2012, p. 64).

According to the abovementioned considerations, our suggestion consists in:

*Primary prevention.* Studying the impact of the pandemic toward at-risk population to reduce symptoms related to stress and providing specific online psychological counseling based on the target (students, medical staff, parents and teachers).

*Secondary prevention.* Overcoming the limitations of the human interaction based on digital devices: a) developing new spaces of inter and intra social communication and new tools of support and psychological treatment, reproducing the multisensory experienced during the face-to-face interaction (Virtual Reality, holograms, serious game etc.); b) training the next generation of psychotherapists in managing online devices and in implementing their adaptive and personal skills, and c) sensitizing the general population on telepsychology and its advantages.

*Research according to the neuro-sociological perspective.* Studying human interaction mediated by new technologies and the role of empathy, associating neuroscience, sociology and psychology.

## Bibliografia

- Algeri, D., Gabri, S., & Mazzucchelli, L. (2019). *Consulenza psicologica online. Esperienze pratiche, linee guida e ambiti di intervento*. Firenze: Giunti Editore.
- APS. (2020). *Psychologists welcome health fund telehealth support of Australians' mental health during COVID-19 outbreak*. Tratto da Australian Psychology Society: <https://www.psychology.org.au/About-Us/news-and-media/Media-releases/2020/Psychologists-welcome-health-fund-telehealth-suppo>
- Barbisch, D., Koenig, K., & Shih, F. (2015). Is there a case for quarantine? Perspectives from SARS to Ebola. *Disaster Medicine and Public Health Preparedness*, 547—553.
- Baylor, C., Burns, M., McDonough, K., Mach, H., & Yorkstona, K. (2019). Teaching Medical Students Skills for Effective Communication With Patients Who Have Communication Disorders. *American Journal of Speech Language Pathology*, 155-164.
- Békés, V., & Aafjes-van Doorn, K. (2020). Psychotherapists' attitudes toward online therapy during the COVID-19 pandemic. *Journal of Psychotherapy Integration*, 30(2), 238-247. <http://dx.doi.org/10.1037/int0000214>
- Brivio, E., Ibarra, F., Galimberti, C., & Cilento. (2010). An Integrated Approach to Interactions in Cyberplaces: The Presentation of Self in Blogs. In E. Brivio, F. Ibarra, & C. Galimberti, *Handbook of Research on Discourse Behavior and Digital Communication: Language Structures and Social Interaction* (p. 810-829). Information Science Reference/IGI Global.
- Brooks, S., Webster, R., S., L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*, 1-9.
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 1-12.



- Cai H., Tu B., Ma J., Chen L., Fu L., Jiang Y., Zhuang Q. Psychological impact and coping strategies of frontline medical staff in Hunan between January and March 2020 during the outbreak of coronavirus disease 2019 (COVID-19) in Hubei, China. *Med. Sci. Monit.* 2020;26.
- CSTS. (2020). Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *International Journal of Environmental Research and Public Health*, 1-25.
- Decety, J. I. (2009). *The Social neuroscience of Empathy*. Cambridge: MIT Press.
- De Luca, R., MSc, PhD, and Rocco Salvatore Calabrò, MD, PhD. 2020. How the COVID-19 Pandemic is Changing Mental Health Disease Management: The Growing Need of Telecounseling in Italy. *Innovation in Clinical Neuroscience*, 17(4-6):16-17.
- Duan, L., Zhu, G. 2020. VOLUME 7, ISSUE 4, P300-302, APRIL 01, 2020. Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet. Psychiatry* DOI:[https://doi.org/10.1016/S2215-0366\(20\)30073-0](https://doi.org/10.1016/S2215-0366(20)30073-0).
- Durkheim, E. (1922). *Education et Sociologie*. Milano: Ledizioni.
- Fessell, D., & Goleman, D. (2020, Maggio 20). *CSTS Center of Study of Traumatic Stress. Department of Psychiatry. How Healthcare Personnel Can Take Care of Themselves*. Tratto da HBR: <https://hbr.org/2020/05/how-health-care-workers-can-take-care-of-themselves>
- Franks, D. (2010). *Neurosociology the nexus between neuroscience and social psychology*. Londra: Springer.
- Gabri, S., Mazzucchelli, S., & Algeri, D. (2015). The request for psychological help in the digital age: offering counseling through chat and video counseling. *E-Journal of Psychotherapy*, 2-10.
- Garcia-Castrillo, L., Petrino, R., & Leach, R. (2020). European Society For Emergency Medicine position paper on emergency medical systems' response to COVID-19. *Eur J Emerg Med*, 174-177.
- Grassi, L., & Magnani, K. (2000). Psychiatric Morbidity and Burnout in the Medical Profession: An Italian Study of General Practitioners and Hospital Physicians. *Psychother Psychosom*, 329-334.
- Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *The BMJ*, 1-4.
- Joint Task Force for the Development of Telepsychology Guidelines for Psychologists. (2013). Guidelines for the practice of telepsychology. *Am Psychol*, 791-800.
- Kang, L., Ma, S., Chen, M., et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. *Brain, behavior, and immunity*, 2020; 87, 11-17.
- Kawohl, W., & Nordt, C. (2020). COVID-19, unemployment, and suicide. *Lancet Psychiatry*, 389-390.
- Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., . . . Hu, S. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Network Open*, 1-12.
- Lambert Zixin Li, Senhu Wang, Prevalence and predictors of general psychiatric disorders and loneliness during COVID-19 in the United Kingdom, *Psychiatry Research*, Volume 291, 2020, 113267, ISSN 0165-1781, <https://doi.org/10.1016/j.psychres.2020.113267>.
- Lanoye, A., Stewart, K., Rybarczyk, B., Auerbach, S., Sadock, E., Aggarwal, A., & Austin, K. (2017). The impact of integrated psychological services in a safety net primary care clinic on medical utilization. *Journal of Clinical Psychology*, 681-692.
- Liang et al., 2020, Y. Liang, M. Chen, X. Zheng, J. Liu. Screening for Chinese medical staff mental health by SDS and SAS during the outbreak of COVID-19. *J. Psychosom. Res.*, 133 (2020), pp. 1101-1102. doi: 10.1016/j.jpsychores.2020.110102.
- Li, S., Wang, Y., Yang, Y., Lei, X., & Yang, Y. (2020). Analysis of influencing factors of anxiety and emotional disorders in children and adolescents during home isolation during the epidemic of novel coronavirus pneumonia. *Chinese Journal of Child Heal*, 1-9.

- Müller, S., & Trachsel. (2020). Ethical Issues in Online Psychotherapy: A Narrative Review. *Frontiers in Psychiatry*.
- Mache, S., Vitzthum, K., Klapp, B., & al., e. (2012). Stress, health and satisfaction of Australian and German doctors—a comparative study. *World Hosp Health*, 7-21.
- Maheu, M. P., McMenamin, J., & Posen, L. (2012). Future of telepsychology, telehealth, and various technologies in psychological research and practice. *Professional Psychology: Research and Practice*, 613-621.
- Mamidipalli Sai Spoorthy, Sree Karthik Pratapa, Supriya Mahant, Mental health problems faced by healthcare workers due to the COVID-19 pandemic—A review, *Asian Journal of Psychiatry*, Volume 51, 2020, 102119, ISSN 1876 2018, <https://doi.org/10.1016/j.ajp.2020.102119>.
- Mantovani, G. (1995). *Comunicazione e Identità: dalle situazioni quotidiane agli ambienti virtuali*. Bologna: il Mulino.
- Mamun, M. A., & Griffiths, M. D. (2020). First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. *Asian journal of psychiatry*, 51, 102073. Advance online publication. <https://doi.org/10.1016/j.ajp.2020.102073>.
- Maunder, R., W., L., & K., B. (2006). Long-term psychological and occupational effects of providing hospital healthcare during SARS outbreak. *Emerging Infectious Diseases*, 1924—1932.
- Mazza, C.; Ricci, E.; Biondi, S.; Colasanti, M.; Ferracuti, S.; Napoli, C.; Roma, P. A Nationwide Survey of Psychological Distress among Italian People during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors. *Int. J. Environ. Res. Public Health* 2020, 17, 3165. <https://doi.org/10.3390/ijerph17093165>
- Fernando Alvarez, David Argente, and Francesco Lippi, 2020. A simple planning problem for Covid-19 lockdown. *Covid Economics*, 14(6). 1-33.
- Miles, S. (2014, Novembre 7). *Kaci Hickox: Public health and the politics of fear*. Tratto da Bioethics: <http://www.bioethics.net/2014/11/kaci-hickox-public-health-and-the-politics-of-fear/>
- Mohindra, R., R., R., Suri, V., Bhalla, A., & Singh, S. M. (2020). Issues relevant to mental health promotion in frontline health care providers managing quarantined/isolated COVID19 patients. *Asian journal of psychiatry*, 51, 102084. Advance online publication. <https://doi.org/10.1016/j.ajp.2020.102084>
- Orgilés, M., Morales, A., Delvecchio, E., Mazzeschi, C., & Espada, J. (2020). Immediate psychological effects of the COVID-19 quarantine in youth from Italy and Spain. *PsyArXiv*, 1-13.
- Pasetti, J. (2020). *Smart-working, costretti all'empatia da convenevoli forzati*. Tratto da Sole24 Ore: [https://alleyoop.ilsole24ore.com/2020/03/20/covid-19-empatia/?refresh\\_ce=1](https://alleyoop.ilsole24ore.com/2020/03/20/covid-19-empatia/?refresh_ce=1)
- Patel V. The Lancet Commission on global mental health and sustainable development. *Lancet*. 2018;392:1553–1598. doi: 10.1016/S0140-6736(18)31612-X.
- Perrin, P., Rybarczyk, B., Pierce, B., Jones, H., Shaffer, C., & Islam, L. (2020). Rapid telepsychology deployment during the COVID-19 pandemic: A special issue commentary and lessons from primary care psychology training. *Clinical Psychology*.
- Pietrabissa, G., Manzoni, A., Algeri, D., Mazzucchelli, L., Carella, A., Pagnini, F., & Castelnuovo, G. (2015). Facebook Use as Access Facilitator for Consulting Psychology. *Australian Psychologist*, 299–303.
- Prensky, M. (2012). What ISN'T Technology Good At? Empathy for One Thing! *Educational Technology*, 64.
- Quine, W. (1990). *Pursuit of Truth*. New York: Harvard University Press.
- Quine, W. (1992). *Pursuit of Truth: Revised Edition*. New York: Harvard University Press.

- Rana, W.; Mukhtar, S.; Mukhtar S., Mental health of medical workers in Pakistan during the pandemic COVID-19 outbreak. *Asian J. Psychiatry*, 51 (2020). doi.org/10.1016/j.ajp.2020.102080
- Roden-Foreman, K., Solis, J., Jones, A., Bennett, M., Roden-Foreman, J., Rainey, E., . . . M. Warren, A. (2017). Prospective Evaluation of Posttraumatic Stress Disorder and Depression in Orthopaedic Injury Patients With and Without Concomitant Traumatic Brain Injury. *J Orthop Trauma*, 275-280.
- Rossi R., Soggi V., Pacitti F., et al. Mental Health Outcomes Among Frontline and Second-Line Health Care Workers During the Coronavirus Disease 2019 (COVID-19) Pandemic in Italy. *JAMA Netw Open*. 2020;3(5):e2010185. doi:10.1001/jamanetworkopen.2020.10185
- Sadock, E., Perrin, P., Grinnell, R., Rybarczyk, B., & Auerbach, S. (2017). Initial and follow-up evaluations of integrated psychological services for anxiety and depression in a safety net primary care clinic. *American Psychology Association*, 1462–1481.
- Shuai Liu, Lulu Yang, Chenxi Zhang, Yu-Tao Xiang, Zhongchun Liu, Shaohua Hu, Bin Zhang, 2020. Online mental health services in China during the COVID-19 outbreak. *The Lancet. Psychiatry*. VOLUME 7, ISSUE 4, E17-E18, APRIL 01, 2020DOI:https://doi.org/10.1016/S2215-0366(20)30077-8
- Singer, T. &. (2009). The Social Neuroscience of Empathy. *Annals of the New York Academy of Sciences*, 81-96.
- Stoll, J., Müller, J., & Trachsel, M. (2020). Ethical Issues in Online Psychotherapy: A Narrative Review. *Frontiers in Psychiatry*, 1-16.
- Suicide Awareness Voices of Education . 2020. Preventing Suicide During and After the COVID-19 Pandemic. Retrieved from: <https://save.org/blog/preventing-suicide-covid-19-pandemic/>.
- Suler, J. (2004). The Online Disinhibition Effect. *CyberPsychology & Behavior*, 321-326.
- Tam, C., Pang, E., Lam, L., & Chiu, H. (2004). Severe acute respiratory syndrome (SARS) in Hong Kong in 2003: stress and psychological impact among frontline healthcare workers. *Psychological Medicine*, 1197-1204.
- Tosoni, S. (2004). *Identità virtuali: comunicazione mediata da computer e processi di costruzione dell'identità personale*. Milano: FrancoAngeli.
- Treccani. (2020). *Einführung*. Tratto da Treccani: <http://www.treccani.it/enciclopedia/einfuehlung/>
- Treccani. (2020). *Empatia*. Tratto da Treccani: <http://www.treccani.it/enciclopedia/empatia/>
- Troy Day, Andrew Park, Neal Madras, Abba Gumel, Jianhong Wu, When Is Quarantine a Useful Control Strategy for Emerging Infectious Diseases?, *American Journal of Epidemiology*, Volume 163, Issue 5, 1 March 2006, Pages 479–485, <https://doi.org/10.1093/aje/kwj056>.
- Vischer, F., & Vischer, R. (1887). *Simbolo e forma* (Trad. It. 2003 ed.). Torino: Arago.
- Weir, K. (2020, April 1). Grief and COVID-19: Mourning our bygone lives. *American Psychological Association*. Retrieved from <https://www.apa.org/news/apa/2020/04/grief-covid-19>.
- Wells, S. W., Moreno, L., Butler, E., Glassman, L., & al., e. (2015). The informed consent process for therapeutic communication in clinical videoconferencing. In: Tuerk PW, Shore P, editors. *Clinical videoconferencing in telehealth: Program development and practice*. Springer International Publishing, 133-166.
- Øyane, N., P., S., Elisabeth, M., Torbjörn, A., & Bjørn, B. (2013). Associations between night work and anxiety, depression, insomnia, sleepiness and fatigue in a sample of Norwegian nurses. *PLoS One*, e70228.
- Xiaoyun Zhou, Centaine L. Snoswell, Louise E. Harding, Matthew Bambling, Sisira Edirippulige, Xuejun Bai, and Anthony C. Smith. 2020. The Role of Telehealth in Reducing the Mental Health Burden from COVID-19. *Telemedicine and e-Health* Vol. 26 (4).doi.org/10.1089/tmj.2020.0068
- Zaffina, S., Camisa, V., Monducci, E., Vinci, M., Vicari, S., & Bergamaschi, A. (2014). Disturbo post traumatico da stress in operatori sanitari coinvolti in un incidente rilevante avvenuto in ambito ospedaliero. *La medicina del lavoro*.

Zanardo, V., Manghina, V., Giliberti, L., Vettore, M., Severino, L., & Straface, G. (2020). Psychological impact of COVID-19 quarantine measures in northeastern Italy on mothers in the immediate postpartum period. *Gynechology & Obstetrics*.