

CHAPTER 6

SOCIAL AND PSYCHOLOGICAL WELL-BEING AMONG VULNERABLE GROUPS DURING COVID-19 EPIDEMIC: LITERATURE REVIEW

**Zeynep TURHAN¹
İlknur DOLU²
Hacer YALNIZ DİLCEN³**

INTRODUCTION

While traumatic Covid-19 epidemic affects many people's everyday lives, it is very important to recognize vulnerable groups' needs during coronavirus crisis. Individuals' social-emotional, psychological, spiritual-religious and economic needs in coronavirus crisis should be examined. Vulnerable groups often face additional struggles during traumatic events. This article aims to investigate available evidence on key experiences of social and psychological well-being among vulnerable groups including elderly people, children, youths and pregnant women during the pandemic. The critical literature review was the method of this article. This investigation concentrates on vulnerable groups' key lived experiences during lockdown linked to the outbreak. Also, it examines available literature on how elderly people, children, youths and pregnant women face Covid-19 pandemic restrictions and lockdown by focusing on their wellness. This article found that vulnerability among children, young people, pregnant women and elderly people was associated with their developmental circumstances. Importantly, these groups were frequently face social and psychological difficulties based on their vulnerable positions during coronavirus crisis. It suggests that social policymakers need to develop available and accessible tools and sources for vulnerable groups during Covid-19 to meet their social and psychological needs.

Covid-19 pandemic started in December 2019 in Wuhan, China has been declared as a global epidemic by the World Health Organization (WHO) since January 2020, 2020a). The internationally concerned emergency, coronavirus (Ho et

¹ Assistant Professor, Department of Social Work, Bartın University, zturhan@bartin.edu.tr

² Assistant Professor, Department of Nursing, Bartın University, idolu@bartin.edu.tr

³ Assistant Professor, Department of Midwifery, Bartın University, hdilcen@bartin.edu.tr

al., 2020), is a highly infectious disease, characterized by severe acute respiratory syndrome, caused by Sars-Cov-2 (Li et al., 2020). In severe cases, there is no definitive treatment and vaccine for coronavirus disease, which has resulted in death. It is spreading more rapidly and comprehensively than the epidemic caused by SARS in 2003, and this brings about fear and panic in the society (Zhu et al., 2020). Strong immunity plays an important role in the mild recovery of coronavirus disease, the clinical findings of which develop like any upper respiratory tract infection (Royal College of Paediatrics and Child Health 2020). Most people infected with coronavirus experience mild to moderate respiratory disease and recover without special treatment. General measures taken with the emergence of the epidemic in the world are as follows: flight restrictions, blocking the entry of foreign nationals to the country, 14-day isolation and symptom monitoring for those coming from countries at risk, curfew of the risk group, weekend a curfew in metropolitan cities (Demirbilek et al., 2020). The closure of schools, the prohibit of public gathering, the preparation of the health system by reviewing the protection of health workers, the isolation of non-hospitalized cases and the quarantine all contacts are often described important governmental restrictions in many countries (Petersen and Gökengin, 2020).

While many studies focus on the medical measures to be taken to prevent the spread of the outbreak (Akin & Gözel, 2020; Demirdağ and Tezer, 2020; Demirbilek et al., 2020; Güner et al., 2020; Petersen and Gökengin, 2020), there is an urgent need to explore social, psychological, cultural and economic consequences of Covid-19 especially on vulnerable groups. Individuals' vulnerable positions are specifically important in recognising the harmful consequences of Covid-19 pandemic. Vulnerability often increases the risks of facing the consequences of Covid-19 based on the social policies in a country; for example, inability to access social support system and losing income are important conditions of being a vulnerable during pandemic (The Lacet, 2020). Importantly, vulnerability is described not only inability to access some services and incapable to do works but also poor organizational issues or lack of opportunities based on individuals' needs (Birinci & Bulut, 2020). Therefore, vulnerability can be decreased and stopped when the services make more efforts to provide available and accessible sources or tools based on vulnerable groups' unique needs. While vulnerable groups may include individuals, who have ill or comorbidities; mental health problems; poor socio-economics status; disabled people immigrant and marginalised ethnic groups, this article concentrates on elderly people, children, young people and pregnant women as vulnerable groups during coronavirus crisis. Even though insufficient evidence around the relationship between vulnerability and the social and psy-

chological consequences of Covid-19, this article recognises how vulnerability can include additional obstacles to dealing with Covid-19 among vulnerable population. It pays attention to the struggles around aging, adolescent and pregnancy during pandemic by concentrating on their social and psychological well-being.

The extent of physical injury during disasters and epidemics, fear of death, death of relatives and loss of financial losses are seen as the most traumatizing aspect of natural disasters (Briere and Elliott, 2000). Trauma can be either direct or indirect. Direct traumatic events include natural disasters such as fire, flood, earthquake, wars, conflicts, prisoner of war, migrations, terrorism, being under conflict, being attacked, epidemics and deadly diseases. Indirect traumatic events are situations where the person is not directly faced with the traumatic event and is indirectly affected by the event. Indirect traumatic events often include seeing the attacked people and learning the death of a relative (APA 2015). A Covid-19 outbreak can be identified as a traumatic event or indirect traumatic event as many people directly face Covid-19 regarding being infected or indirectly experienced as their friends or relatives are infected by Covid-19. Being closed at home during the epidemic periods (Brooks et al., 2019) and economic losses (ULISA12, 2020) significantly increase the incidence and severity of mental illnesses. As a result of the coronavirus outbreak worldwide, many researchers have pointed out that people may experience psychological and social problems such as depression, anxiety symptoms, post-traumatic stress and fear (Ammerman et al., 2020; Gelder et al., 2020; Ho et al., 2020; Lee, 2020; Torales et al., 2020). For example, it has been stated that the relationship between coronavirus and suicide attempts has been emphasized and it may have destructive effects on people's mental health (Ammerman et al., 2020). Therefore, this article critically explores what children, youths, elderly people and pregnant women encounter in Covid-19 by concentrating on their social and psychological needs.

During the coronavirus outbreak in China, the effects of social facilities on the sleep quality of people who were self-isolated at home for 14 days were investigated (Liu et al., 2020). According to this study, poor social services were associated with increased levels of anxiety and stress, and increased the quality of social services were positively associated with sleep quality. When the individuals experienced a high level of anxiety and stress, they did not get support from social services regarding their quality of sleep. In a study by Sri Lanka, Ellepola and Rajapakse (2020), individuals in quarantine have often experienced acute stress disorder, posttraumatic stress disorder, substance abuse and addiction, irritability, anxiety disorder, insomnia, poor concentration and poor work performance, risk of instability and depression. There may be more devastating effects on people

with xenophobia in society, exposure to negative news about the uncertainty and social stigmatization. Special clinics, training programs and workshops have been proposed to reduce and eliminate the negative psychological consequences for healthcare workers and vulnerable groups (Ellepola and Rajapakse, 2020).

It was noted that vulnerable groups suffered more psychologically, economically, psychologically and physiologically during the epidemic period (The Lancet, 2020). Furthermore, studies are indicating that the social restrictions often increased the risk of domestic violence events (Campbell, 2020; Humphreys et al., 2020; Gelder et al., 2020; Supplee and Crowne, 2020). It was underlined that their safety is under threat especially under conditions such as the survivors of domestic violence are not staying in shelters and limiting access to social support services (Abramson, 2020). It is also recommended to provide therapies by clinical psychologists for those in the risk group to reduce negative emotional states such as anxiety, anger and fear (Callaghan, 2003; Li et al., 2020).

Exploring the psychological and social consequences of the coronavirus epidemic on vulnerable groups is important to develop preventions and interventions for their well-being. Therefore, this article aims to investigate available evidence about how vulnerable groups including elderly people, children, youths and pregnant women have experienced Covid-19. The reason for choosing this specific group was about they may experience the most detrimental consequences of Covid-19 pandemic regarding their social and psychological well-being (Daunis, 2020). For example, elderly people were frequently isolated within the restrictions of quarantine. Importantly, elderly people mostly fail to use any social media or technological tools. This vulnerable position is associated with their poor socialisation or distress during lockdown.

METHOD

A critical literature review was chosen as a major method for the article. The following keywords and expressions were examined in the literature: “traumatic events, children, coronavirus, elderly, young people, pregnant women, fragile groups, the vulnerable population during Covid-19, sensitive groups, vulnerability in Covid-19, social and psychological well-being”. English and Turkish languages were used for the search articles, and the timeframe for the search was 1989 to 2020. This timeframe was selected based on the time of recognising the epidemics in the world. PsycINFO, Web of Science, Science Direct, ProQuest and PubMed were the databases for search. This study explores two key questions: (1) What are the available evidence about the influences of Covid-19 on vulnerable groups including elderly, children, young people and pregnant women? (2) How

do the elderly, children, young people and pregnant women experience Covid-19 pandemic processes by focusing on their social and psychological well-being?

RESULTS

Social and psychological effects of Covid-19 on vulnerable groups including elderly people, children, young people and pregnant women are investigated. The findings illustrate how vulnerable groups have frequently faced extra difficulties in dealing with the lockdown during pandemic. Moreover, hypertension, diabetes mellitus, cardiovascular disease, cancer, chronic lung diseases are frequently seen in elderly individuals. However, they often have more than one chronic disease in the elderly. While 68% of elderly individuals have two or more chronic diseases, 80% have at least one chronic disease (Adams, 2017; National Council on Aging, 2017). With the advancement of age, besides the natural weakening of the immune system in humans, some drugs they use may have a weakening effect on the immune system (CDC, 2020; Ho et al., 2020; T.R.Ministry of Health, 2020a). For these reasons, coronavirus causes illness more frequently among elderly individuals. Children and young people also hold vulnerable position due to their developmental needs. For example, closures of the schools stopped them interact with their peers which affected their social skills and needs.

Vulnerability among elderly people during Covid-19

According to the published data on coronavirus disease, individuals with the highest number of deaths worldwide are those aged 60 years or older. Although this rate varies by country, it constituted approximately eight-tenths of the reported deaths (CDC, 2020; T.R.Ministry of Health, 2020b). Although it is higher in developed countries, the rate of the elderly population worldwide is 8.5% (NHI, 2016). Similarly, this rate is 8.7% in our country and shows an increasing trend (TUIK, 2018). Older individuals worldwide are hospitalized three times more than adults, and about half of their total health expenditure is spent on their hospitalization (WHO, 2016). In Turkey, elderly individuals are responsible for approximately half of their hospitalization and stay in the hospital for an average of 4 days (T.R.Ministry of Health, 2020). According to the projections about the coronavirus outbreak, approximately 60% of individuals aged 65 and over are expected to go to the hospital and about 30% to intensive care. In connection with this, it is predicted that approximately 10% of individuals aged 65 and over will lose their lives due to the epidemic and this rate will increase with 30% with the advancement of age (CDC, 2020). When these data are evaluated, such policies, which are also implemented in Turkey to protect the health system during the ep-

idemic management process, are a very important approach in protecting elderly people from the epidemic by staying at home, reducing hospital stays and death rates.

The feeling of loneliness, mental health problems and social isolation are commonly seen in the normal process in elderly individuals (Kalinkara and Sarı, 2019; Parlak Demir, 2017; WHO, 2020a). Elderly people are defined as a vulnerable group regarding their health issues and social needs during coronavirus outbreak (WHO, 2020b). Social isolation is a serious public health problem among elderly individuals due to the prevalence of their cardiovascular, immune, cognitive and mental health problems. Restriction of social access carries the risk of causing more anxiety and depression in the elderly in these respects. This risk is especially higher for elderly people who go out and socialize mostly for shopping, visiting friends or relatives (Armitage and Nellums, 2020). The coronavirus epidemic can lead to increase in elderly individuals' anxiety and anger. When elderly people hold cognitive impairment and dementia, this may increase the difficulty of dealing with Covid-19 pandemic processes. In this process, the restriction of physical activity of older individuals, their inability to maintain their current routines and their participation in activities increase their anxiety and stress (WHO, 2020b). In outbreaks, older individuals experience fears that the infection will affect themselves or their family, as well as a fear that it cannot communicate with the outside world. Social isolation, anxiety, and stress caused these fears have increased suicide rates in elderly individuals during the SARS period (Yip et al., 2010). In epidemic cases, post-traumatic stress disorder syndrome is seen more in the elderly than adults (Lee et al., 2006).

While some seniors can actively use technological communication tools, those who cannot use them may have limited access to psychosocial support services as well as the risk of social isolation (Armitage and Nellums, 2020; Johns Hopkins Medicine, 2020; WHO, 2020b). Elderly individuals are also difficult to adapt to technological devices, as the decline in senses and cognitive states with aging can hinder learning new things. According to the study conducted across Europe, 55% of elderly people stated that they were not interested in the internet at all and 19% did not have a computer (Iancu & Iancu, 2017). When considered in this context, it is clear that older individuals are at risk in terms of social isolation as well as other mental illnesses compared to other age groups during the epidemic period. Therefore, elderly people' health problems and social isolation without using any technological devices regarding accessing social support are important conditions increased their vulnerability during pandemic.

Vulnerability among children and young people during Covid-19

The reactions of children and young people to the epidemic may vary according to age, the level of development, academic position, social support, characteristics and other personal and social positions. General symptoms of psychological trauma among youths are defined as regression, attachment behaviour, carelessness, aggression, bedwetting, somatic complaints, irritability, social withdrawal, nightmares and crying (Hagan, 2006). In the longer term, more severe psychological problems such as depression, anxiety disorders and post-traumatic stress may occur (Hagan, 2006). Considering all these results, it is seen that the support services should be implemented. The direct effect of the coronavirus outbreak on children and adolescents appears to be less severe than adults, but indirect and harmful consequences might be a long-term impact. Restrictions such as the closure of schools due to the outbreak and the prohibition of going out are emphasized and these restrictions may negatively affect children's social and psychological well-being (Lee, 2020; Pisano et al., 2020; Rosenthal et al., 2020; Van Lancker and Parolin, 2020; Viner et al., 2020).

Limiting or even eliminating the time children spend with friends and limiting playgrounds is a real concern for children because uncertainty about the pandemic process often increases children's anxiety. Children who cannot have internet or wider playgrounds may be affected more negatively (Ramchandani, 2020). Importantly, if the family members or relatives are in quarantine, this can be devastating for the psychology of children and young people. Therefore, much attention should be paid to the care of children who are separated from their parents due to quarantine, because children may be at risk of coronavirus 2 and severe acute respiratory syndrome (Liu et al., 2020). The mental health problems and the risk of transmission of children who lose their parents from the epidemic should be taken into consideration. Furthermore, the child experiences the grieving process should be taken into consideration during Covid-19 (Liu et al., 2020). These conditions lead the child to become a victim and the necessary intervention services need to be developed urgently.

Providing digital lessons to the children and youths often address to reduce the negative influences around the closure of schools (Wang et al., 2020a). Similarly, providing online programs by social workers or psychologists may be useful to prevent possible crises, conflicts and violence in the family; especially for a single mother or father (Wang et al., 2020). If the home environment is stressful, the possible outcome of the coronavirus epidemic may increase children's psychological problems (Moroni et al., 2020). The presence of pre-existing psychological problems or being in a critical period causes additional problems among some

children. For example, when families hold poor social-emotional skills and poor socio-economic situations (Attanasio et al., 2020), boys are more likely to experience behavioural problems (Bertrand & Pan, 2013). If similar problems exist, both boys and girls who are in adolescence have been reported to be more likely to experience psychological disorders (Moroni et al., 2020; Patalay and Fitzsimons, 2018). However, the family environment has positive family interactions that reduces these consequences (Moroni et al., 2019). A study conducted by Huang and Zhao (2020) in China, was found that young people spend a lot of time thinking about the coronavirus outbreak, their depressive symptoms were increased. Furthermore, the psychological disorders of adolescents may increase during traumatic events such as epidemics and disasters. As we can see the evidence around children and young people in Covid-19, their vulnerability is associated with their family environment and their developmental issues during outbreak.

Vulnerability among pregnant women during Covid-19

One of the most affected group by the Covid-19 is pregnant women. Rassumen (2020) conducted a study with 12 pregnant women and found that the case death rate for the severe acute respiratory syndrome was 25%. It was found that mechanical ventilation during pregnancy was 3 times more than non-pregnant women. They found that among 7 pregnant women with Covid-19 infection in the first trimester, 4 of them resulted in spontaneous abortion, and 4 out of 5 women with severe acute respiratory syndrome after 24 weeks of pregnancy were born prematurely. The immune system is partially suppressed during pregnancy. Pregnant women are more vulnerable to viral infections, and morbidity is even higher in seasonal flu. Therefore, the coronavirus epidemic can have harmful consequences for pregnant women (Damiano, 2020; Liang 2020).

While pregnancy is an exciting and uncertain process, coronavirus epidemic causes more stress and anxiety among pregnant women (Damiano, 2020). Loss of appetite, sleep problems, worsening of chronic diseases, loss of concentration, and anxiety and fear associated with pregnancy and birth are high-stress symptoms during pregnancy. When pregnant women constantly watched the news and other programs in the media and on the internet, these can impact negatively on their health due to the hearing negative cases on the media. In this process, being unable to follow pregnancy and closing birth preparation classes might increase the anxiety and stress among pregnant women. Also, it is difficult to have sufficient and accurate information about pregnancy and the delivery process. At the end of these processes, pregnancy and birth complications may increase and maternal and new-born mortality and morbidity may increase.

Creating online prenatal classes where they can talk to healthcare professionals and a midwife, and are great places to meet and talk to other pregnant women, can be helpful. In these classrooms, pregnant women learning how to do breathing exercises, yoga and meditation besides knowledge about pregnancy and birth may contribute to the reduction of anxiety and stress levels. Pregnant women have incomplete and incorrect information about coronavirus may unable to protect themselves. There is a need to measure the level of knowledge on this subject and to provide adequate information about pregnancy process. The epidemic causes many pregnant women to experience changes in their birth plans that can cause stress and uncertainty. Thus, this article suggests that health care providers need to inform them. This can help them feel under control and reduce their anxiety levels.

DISCUSSION

This article examined how elderly people, children, youths and pregnant women have experienced the process of Covid-19 pandemic by focusing on their social and psychological well-being. While growing literature pointed out the psychological impact of Covid-19 by focusing on quarantine (Brooks et al., 2020; Xiang et al., 2020; Zhou, 2020), vulnerable groups' social and psychological well-being during coronavirus crisis should be taken into consideration. This review suggests that vulnerable groups' social and psychological problems are frequently related to lockdown, exposure to constant negative news and long-period of staying at home or having infected relatives. Importantly, staying at home as a governmental restriction was the most important issue was associated with the negative psychological effect. Vulnerable groups hold their specific difficulties and social policies should consider their specific needs during Covid-19. For example, elderly people were restricted to go outside for about four months in Turkey and many other countries have similar rules. Therefore, they have mostly not contacted their friends and relatives and restricted to walk outside by themselves during crisis. These have been very stressful and may have damaged their social and psychological health. Similarly, many young people have been restricted from going outside at the beginning of the Covid-19 and their schools were closed. As adolescents put much priority to contact their peers regarding their developmental issues. In this case, they felt more stressed when they were not able to have face-to-face contact with their friends. Pregnant women also encountered difficulties to go to a doctor and worried about their birth period due to Covid-19 pandemic. For instance, they concerned about healthy birth processes as they might not access accurate and accessible information about their birth processes.

While numerous studies draw attention to the negative effects of coronavirus epidemic on people's psychological, social and cultural well-being, it is stated that there is an urgent need for preventive and interfering studies providing psychological and social well-being (Banerjee, 2020; Bavel et al., 2020; Bruns et al., 2020; Ho et al., 2020; Holmes et al., 2020; Huang and Zhao, 2020; Monica and Corporation, 2020; Shi and Hall, 2020; Qiu et al., 2020; Wang et al., 2020a, 200b). Similarly, the development of strategies and interventions can meet the psychological, social and neurological needs when the cooperation is established within different institutions (Holmes et al., 2020). It has been suggested that interventions should be developed to improve individuals' mental health by teaching effective coping strategies (Qiu et al., 2020).

While our findings fail to support strong evidence regarding certain risk factors impacting on vulnerable groups' social and psychological well-being, it paid attention to the importance of recognising vulnerable groups' needs. When we recognise their needs and special circumstances regarding their health, social services can offer more effective practices and resources. Therefore, more attention should be required on how human and health services can provide effective tools and strategies for vulnerable groups during coronavirus crisis. This article suggests that innovative tools such as web-based preventions and interventions should be developed for specific vulnerable groups to reduce and stop social and psychological problems during pandemic. For example, such tools and resources can help them improve their well-being by providing psychological and therapeutic support. Furthermore, informing vulnerable groups about the nature of Covid-19 in reducing their fear and uncertainty can reduce their stress.

Conclusion

A longer period of facing restrictions or quarantine are often related to more harmful consequences around social and psychological wellness. In this period, vulnerable groups might be affected more detrimental than general population. This study paid attention to the vulnerable groups including elderly people, children, youths and pregnant women to recognise their unique social and psychological needs. Even though many other sensitive groups including domestic violence survivors, individuals who have the chronic disease and mental health problems also need to be recognised, this study reviewed the available literature on the needs of elderly people, children, youths and pregnant women by concentrating on their social and psychological well-being. It was recommended that health care services as well as human services should take new actions to provide available sources and approaches to improve vulnerable groups' social and psychological well-being during the outbreak of Covid-19.

REFERENCES

- Abramson, A. (2020). How COVID-19 may increase domestic violence and child abuse. <https://www.apa.org/topics/covid-19/domestic-violence-child-abuse>
- Adams, M. (2017). Differences between younger and older us adults with multiple chronic conditions. *Preventing Chronic Disease*, 14, 160613.
- Akin, L., & Gözel, M. G. (2020). Understanding Dynamics of Pandemics. *Turkish Journal of Medical Sciences*, April, 515–519. <https://doi.org/10.3906/sag-2004-133>
- (APA) Amerikan Psikiyatri Birliği. (2015). *Mental bozuklukların tanınması ve sayımsal el kitabı, Dördüncü Baskı (DSMV) Trauma- and Stressor-Related Disorders* (Çev. Ed.: E. Köroğlu). Ankara Hekimler Yayın Birliği, Ankara
- Ammerman, B. A., Burke, T. A., Jacobucci, R., & McClure, K. (2020). Preliminary Investigation of the Association Between COVID-19 and Suicidal Thoughts and Behaviors in the U.S. *PsyArXiv*. <https://doi.org/10.31234/OSF.IO/68DJP>
- Attanasio, O., Blundell, R., Conti, G., & Mason, G. (2020). Inequality in socio-emotional skills: A crosscohort comparison. *Journal of Public Economics*, Forthcoming.
- Armitage, R., Nellums, L.B. (2020). COVID-19 and the consequences of isolating the elderly, *The Lancet Public Health*, [https://doi.org/10.1016/S2468-2667\(20\)30061-X](https://doi.org/10.1016/S2468-2667(20)30061-X)
- Banerjee, D. D. (2020). Psychological preparedness for the COVID-19 pandemic, perspectives from India. *Psychiatry Research*, 288(April). <https://doi.org/10.1016/j.psychres.2020.112999>
- Bavel, J. J. Van, Baicker, K., Boggio, P., Capraro, V., Cichocka, A., Crockett, M., Cikara, M., Crum, A., Douglas, K., Druckman, J., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., ... Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. *PsyArXiv*. <https://doi.org/10.31234/OSF.IO/Y38M9>
- Birinci, M., & Bulut, T. (2020). Covid-19'un Sosyo-Ekonomik Yönden Dezavantajlı Gruplar Üzerindeki Etkileri: Sosyal Hizmet Bakış Açısından Bir Değerlendirme. *Sosyal Çalışma Dergisi*, 4(1), 62–68.
- Briere, J., Elliott, D.M., 2000. Prevalence, characteristics and long-term sequelae of natural disaster exposure in the general population. *Journal of Traumatic Stress*, 13, s. 661-679.
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Bruns, D. P., Kraguljac, N. V., & Bruns, T. R. (2020). COVID-19: Facts, Cultural Considerations, and Risk of Stigmatization. *Journal of Transcultural Nursing*, 1043659620917724. <https://doi.org/10.1177/1043659620917724>
- Callaghan, D. M. (2003). Health-promoting self-care behaviors, self-care self-efficacy, and self-care agency. *Nursing Science Quarterly*, 16(3), 247–254. <https://doi.org/10.1177/0894318403016003016>
- Campbell, A. M. (2020). An Increasing Risk of Family Violence during the Covid-19 Pandemic: Strengthening Community Collaborations to Save Lives. *Forensic Science International: Reports*. <https://doi.org/10.1016/j.fsir.2020.1000891>.
- CDC (Centers for Diseases Control and Prevention) (2020). Coronavirus Disease 2019 (COVID-19), Older adults. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html> [Erişim tarihi 21/04/2020]
- Damiano, L. (2020). COVID-19 and pregnancy: a biobank of maternal and fetal tissue. <https://www.umcg.nl/EN/Research/InstitutesProgrammes/impact/impact-stories/covid-19/other-risk-groups/Paginas/covid-19-and-pregnancy.aspx>
- Dauis, F. (2020). Covid-19 The most vulnerable groups and people with disabilities are among HI's top priorities.
- Demirdağ, T., & Tezer, H. (2020). Novel Coronavirus disease (COVID-19) in children. *Turkish Journal of Medical Sciences*, April, 592–603. <https://doi.org/10.3906/sag-2004-174>

- Demirbilek, Y., Pehlivan Türk, G., Özgüler, Z. Ö., & Meşe, E. A. L. P. (2020). COVID-19 outbreak control , example of ministry of health of Turkey. *Turkish Journal of Medical Sciences*, 489–494. <https://doi.org/10.3906/sag-2004-187>
- Ellepolala, A., & Rajapakse, R. P. S. (2020). Foreseeable psychological impact of COVID 19 in Sri Lanka (Issue April). <https://doi.org/10.13140/RG.2.2.26156.21120>
- Gelder, N. Van, Peterman, A., Potts, A., Donnell, M. O., Thompson, K., & Shah, N. (2020). COVID-19: Reducing the risk of infection might increase the risk of intimate partner violence. *EClinicalMedicine*, 000, 100348. <https://doi.org/10.1016/j.eclinm.2020.100348>
- Güner, H. R., Hasanoğlu, I., & Aktaş, F. (2020). COVID-19: Prevention and control measures in community. *Turkish Journal of Medical Sciences*, 571–577. <https://doi.org/10.3906/sag-2004-146>
- Hagan, J. F. (2006). Psychosocial implications of disaster or terrorism on children: A guide for the pediatrician. In *Pediatrics* (Vol. 116, Issue 3, pp. 787–795). American Academy of Pediatrics. <https://doi.org/10.1542/peds.2005-1498>
- Ho, C. S. H., Chee, C. Y. I., Psychiatry, M., & Ho, R. C. M. (2020). Mental Health Strategies to Combat the Psychological Impact of COVID-19 Beyond Paranoia and Panic. *Commentary*, 1–6.
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Cohen Silver, R., Everall, I., Ford, T., John, A., Kabir, T., King, K., Madan, I., Michie, S., Przybylski, A. K., Shafran, R., Sweeney, A., ... Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *The Lancet. Psychiatry*, 0366(20), 1–14. [https://doi.org/10.1016/S2215-0366\(20\)30168-1](https://doi.org/10.1016/S2215-0366(20)30168-1)
- Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 epidemic in China: a web-based cross-sectional survey. *MedRxiv*, 288(April), 2020.02.19.20025395. <https://doi.org/10.1101/2020.02.19.20025395>
- Humphreys, K. L., Myint, M. T., & Zeanah, C. H. (2020). Increased Risk for Family Violence During the COVID-19 Pandemic. *Pediatrics*. <https://doi.org/10.1542/peds.2020-0982>
- Iancu, I., Iancu, B. (2017). Elderly in the Digital Era. *Theoretical Perspectives on Assistive Technologies*. *Technologies*, 5, 60.
- Johns Hopkins Medicine (2020). Health, Coronavirus and COVID-19: Caregiving for the Elderly. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-caregiving-for-the-elderly> [Erişim tarihi 21/04/2020]
- Lee, J. (2020). Reflections Feature Mental health effects of school closures during COVID-19. *The Lancet Child and Adolescent Health*, 2019(20), 30109. [https://doi.org/10.1016/S2352-4642\(20\)30109-7](https://doi.org/10.1016/S2352-4642(20)30109-7)
- Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2020). The impact of covid-19 epidemic declaration on psychological consequences: A study on active weibo users. *International Journal of Environmental Research and Public Health*, 17(6). <https://doi.org/10.3390/ijerph17062032>
- Liang H, Acharya G. (2020). Novel corona virus disease (COVID-19) in pregnancy: What clinical recommendations to follow? *Acta Obstet Gynecol Scand*. 2020; 00:1–4. DOI: 10.1111/aogs.13836
- Liu, J. J., Bao, Y., Huang, X., Shi, J., & Lu, L. (2020). Mental health considerations for children quarantined because of COVID-19. *The Lancet Child & Adolescent Health*, 0(0). [https://doi.org/10.1016/s2352-4642\(20\)30096-1](https://doi.org/10.1016/s2352-4642(20)30096-1)
- Monica, S., & Corporation, R. (2020). Public Mental Health Crisis during COVID-19 Pandemic, *China References*. 26(7).1-
- Moroni, Gloria, Nicoletti, C., & Tominey, E. (2020). Children's socio-emotional skills and the home environment during the COVID-19 crisis. *VOX*, CEPR Policy Portal. <https://voxeu.org/article/children-s-socio-emotional-skills-and-home-environment-during-covid-19-crisis>
- National Council on Ageing. *Healthy Ageing*. 2017, <https://d2mkcg26uvvg1cz.cloudfront.net/wp-content/uploads/2018-Healthy-Aging-Fact-Sheet-7.10.18-1.pdf>
- NIH-funded Census Bureau report offers details of global aging phenomenon, <https://www.nih.gov/news-events/news-releases/worlds-older-population-grows-dramatically> [Erişim tarihi 21/04/2020]

- NIH (National Institutes of Health) (2016). World's older population grows dramatically.
- Parlak Demir, Y. (2017). Kendi evinde yaşayan ve huzurevinde yaşayan yaşlı bireylerin günlük yaşam aktivitelerinin, depresyon düzeylerinin ve sosyal izolasyon durumlarının karşılaştırılması, *Ankara Sağlık Hizmetleri Dergisi*, 16(1), 19-28.
- Patalay, P., & Fitzsimons, E. (2018). Development and predictors of mental ill-health and wellbeing from childhood to adolescence. *Social Psychiatry and Psychiatric Epidemiology*, 53(12), 1311-1323.
- Petersen, E., & Gökengin, D. (2020). SARS-CoV-2 epidemiology and control, different scenarios for Turkey. *Turkish Journal of Medical Sciences*, 509-514. <https://doi.org/10.3906/sag-2003-260>
- Pisano, L., Galimi, D., & Cerniglia, L. (2020). A qualitative report on exploratory data on the possible emotional/behavioral correlates of Covid-19 lockdown in 4-10 years children in Italy. *PsyArXiv*. <https://doi.org/10.31234/OSF.IO/STWBN>
- Ramchandani, P. (2020). Children and covid-19. In *New Scientist*. Reed Business Information. [https://doi.org/10.1016/S0262-4079\(20\)30721-1](https://doi.org/10.1016/S0262-4079(20)30721-1)
- Rasmussen S A, Smulian J C, Lednický J A, Wen T S, Jamieson D J. (2020). Coronavirus Disease 2019 (COVID-19) and pregnancy: what obstetricians need to know. *American Journal of Obstetrics & Gynecology*, 1-12. <https://doi.org/10.1016/j.ajog.2020.02.017>
- Rosenthal, D. M., Ucci, M., Heys, M., Hayward, A., & Lakhanpaul, M. (2020). Impacts of COVID-19 on vulnerable children in temporary accommodation in the UK. *The Lancet Public Health*. [https://doi.org/10.1016/s2468-2667\(20\)30080-3](https://doi.org/10.1016/s2468-2667(20)30080-3)
- Royal College of Paediatrics and Child Health Covid-19 guidance for pediatric services RCPCH London. <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-03-21-covid19-pregnancy-guidance-2118.pdf> [Erişim tarihi 21/04/2020]
- Shi, W., & Hall, B. J. (2020). What can we do for people exposed to multiple traumatic events during the coronavirus pandemic? *Asian Psychiatry*, January, 19-20.
- Supplee, L., & Crowne, S. S. (2020). During the COVID-19 pandemic, telehealth can help connect home visiting services to families - *Child Trends*. <https://www.childtrends.org/during-the-covid-19-pandemic-telehealth-can-help-connect-home-visiting-services>.
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: Implications and policy recommendations. *General Psychiatry*, 33(2), 19-21. <https://doi.org/10.1136/gpsych-2020-100213>
- The Lancet. (2020). Redefining vulnerability in the era of COVID-19. Elsevier Ltd. [https://doi.org/10.1016/S0140-6736\(20\)30757-1](https://doi.org/10.1016/S0140-6736(20)30757-1)
- T.R.Ministry of Health (T.C. Sağlık Bakanlığı) (2020a). COVID-19 Yeni Koronavirüs Hastalığı. <https://covid19bilgi.saglik.gov.tr/tr/> [Erişim tarihi: 21/04/2020].
- T.R.Ministry of Health (T.C. Sağlık Bakanlığı) (2020b). Sağlık İstatistikleri Yılığ 2018. <https://dosyasab.saglik.gov.tr/Eklenti/36134,siy2018trpdf.pdf?0> [Erişim tarihi 21/04/2020]
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*, 002076402091521. <https://doi.org/10.1177/0020764020915212>
- TÜİK (Türkiye İstatistik Kurumu). 2018. Nüfus Projeksiyonları, 2018-2080. <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30567> [Erişim tarihi 21/04/2020]
- ULİSA12 (2020). Kovid-19 (Koronavirüs) Salgınının Ekonomik Etkileri. https://aybu.edu.tr/yulisa/contents/files/ULI%CC%87SA12_Kovid_19_Ekonomik_Etkiler.pdf [Erişim tarihi 21/04/2020]
- Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: a social crisis in the making. *The Lancet Public Health*, 0(0), 2019-2020. [https://doi.org/10.1016/S2468-2667\(20\)30084-0](https://doi.org/10.1016/S2468-2667(20)30084-0)
- Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonell, C., & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. *The Lancet Child & Adolescent Health*, 0(0), 1-8. [https://doi.org/10.1016/S2352-4642\(20\)30095-X](https://doi.org/10.1016/S2352-4642(20)30095-X)

- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020a). 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*, 17(5). <https://doi.org/10.3390/ijerph17051729>
- Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020b). Mass masking in the COVID-19 epidemic: people need guidance. *The Lancet*, 395(10228), 945–947. [https://doi.org/10.1016/S0140-6736\(20\)30547-X](https://doi.org/10.1016/S0140-6736(20)30547-X)
- WHO (World Health Organization) (2020a). WHO announces COVID-19 outbreak a pandemic. <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/who-announces-covid-19-outbreak-a-pandemic> [Erişim tarihi: 21/04/2020]
- World Health Organization. (2020b). Mental health and psychological resilience during the COVID-19 pandemic. <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/mental-health-and-psychological-resilience-during-the-covid-19-pandemic>
- Yip, P.S., Cheung, Y.T., Chau, P.H., Law, Y.W. (2010). The impact of epidemic outbreak: the case of severe acute respiratory syndrome (SARS) and suicide among older adults in Hong Kong. *Crisis*, 31(2), 86-92. doi: 10.1027/0227-5910/a000015.
- Xiang, Y., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*, 7(3), 228–229. [https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8)
- Xiang, Y., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*, 7(3), 228–229. [https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8)
- Zhou, X. (2020). Psychological crisis interventions in Sichuan Province during the 2019 novel coronavirus outbreak. *Psychiatry Research*, 286(February), 112895. <https://doi.org/10.1016/j.psychres.2020.112895>