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Original Article



Social Implications of COVID-19 in Iran: A Social Work Perspective

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Abstract

Background: The widespread and rapid outbreak of COVID-19 shows how a biological and epidemiological issue can affect all aspects of life, including the social domain, leading to short-term and long-term changes in the social and cultural structure of society. Accordingly, the present study aimed to illustrate the social effects of COVID-19 using the futures wheel method.

Methods: This qualitative study utilized the futures wheel method. Two groups of experts participated in this study, including experts in the social field at the Institute for Futures Studies in Health and national-level experts in the field of social work. The second version of the futures wheel was implemented in three steps. The identified effects were categorized based on (1) opportunities and threats and (2) time intervals (short-term and long-term). Cases with a support rate of more than 70% were included in the futures wheel as final factors.

Results: The findings of this study revealed two main layers of social effects stemming from the COVID-19 outbreak. Home quarantine, social responsibility, social distancing, social security, increased risk for vulnerable social groups, and the use of social networks were the categories identified at the first layer. The second layer included factors such as individualism, social stigma, social exclusion, domestic violence, and an increase in abortions, which threatened Iranian society in a short period.

Conclusion: Threats may manifest through social protests, class disparities, and the increase in social disorders in the long run. In the short term, opportunities such as reducing the number of female-headed households and increasing intragroup social capital can also be predicted. Therefore, it is expected that the role of civil society will be strengthened in the long term. **Keywords:** COVID-19, Pandemic, Social effects, Futures wheel, Iran

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Introduction

Every day, new phenomena emerge that affect various social, cultural, economic, and political aspects of life. Trends and events play a crucial role in driving future changes. Trends refer to regular and continuous changes over a specific period, while events are incidents that disrupt the continuity of history and are of considerable importance. One such event that has recently strongly affected all areas of human life is the outbreak of COVID-19 (1,2).

In late December 2019, a series of unexplained cases of pneumonia were reported in Wuhan, China. The Chinese government and health researchers took rapid measures to control the outbreak and initiated etiological research. On January 12, 2020, the World Health Organization (WHO) temporarily named the new virus novel coronavirus-2019. On February 11, 2020, the disease caused by the novel coronavirus-2019 was officially named COVID-19 by the WHO. The outbreak of the COVID-2019 was unique due to its rapid transmission. In addition, it led to a global emergency in less than a few months, which was a shock to the international community, especially to health policymakers around the world. According to the WHO report in 1996, "Over the past 20 years, at least 30 new diseases have emerged to threaten the health of hundreds of millions of people" (2).



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The distinctive and rapid outbreak of COVID-19 shows how a biological and epidemiological issue can affect all aspects of life, including the social domain leading to short-term and long-term changes in the social and cultural structure of society. This epidemic has brought about various social risks, especially for vulnerable groups of society. At the same time, this unexpected crisis has provided opportunities for various groups and people, particularly within the social realm (3)

In this condition, preserving social and mental health, reducing social risks, and strengthening existing opportunities are of utmost importance. As mentioned, no community is immune to the social consequences and risks posed by this crisis, experiencing social problems during the spread of COVID-19 (4).

Mortality is not the only concern caused by infectious diseases as these diseases have numerous harmful effects on society. In Africa, mortality rates represent only minor side effects of infectious diseases, and besides health problems, the negative effects include disabilities and abnormalities, reduced efficiency, and the pressures of care and treatment induced by numerous diseases. Poor economic performance of African countries further exacerbates the social impacts of infectious diseases. In 34 out of 53 countries, other components of human development including income, education, and social issues have also been affected (5).

Developing countries like Iran, are more vulnerable to immediate crises due to their limited social, health, and economic infrastructures. In critical situations like the COVID-19 pandemic, countries like Iran encounter challenges such as insufficient medical equipment, deficiencies in the healthcare system, increased unemployment, and economic decline. Therefore, these countries are often relatively more vulnerable.

The current state of society raises serious concerns about the social vulnerability of rural and urban areas in the face of epidemics. The presence of marginalized populations in large cities, high vulnerability of the poor, sexual perversions, drug injections, and widespread production of, at times contaminated, food, all provide good chances for opportunistic infectious diseases (6).

Moreover, research shows social workers have faced increasingly complex client needs during the COVID-19 pandemic. Five themes were identified regarding the impact of the COVID-19 pandemic on social work practice including clients presenting with increasing complexities, challenges in transitioning to virtual care, the advantages of transitioning to virtual care, adjustment in providing in-person services, and considerations for personal well-being.

The futures wheel technique was invented in 1971 by Jerome C. Glenn. It is used to identify and categorize emerging issues and possible future decisions (5). This technique has been referred to by various names such as the execution wheel, effects wheel, mind mapping, etc., depending on the context in which it is applied. The futures wheel is a kind of systematic brainstorming to organize thoughts and ask questions about the future. Considering the need for higher awareness of the social effects of COVID-19 disease, this study aims to illustrate these effects using the futures wheel technique.

Methods

This study examined the social consequences of COVID-19 in Iran using a qualitative inductive approach by reviewing the library documents. A comprehensive review of the relevant literature was conducted to gather existing knowledge, theories, and insights related to the research topic. The review of library documents helped to establish the theoretical framework and provide a contextual background for the study.

A total of 14 sessions were held in this study for both groups. The inclusion criteria for selecting the participants were professional background, expertise, or having firsthand information. The participants were selected using purposive and snowball sampling. Similar to other qualitative studies, data synthesis continued until saturation was achieved. Data were collected through researcher-led interviews over a period of more than six months. The collected data were organized and coded to identify patterns and themes. Following a qualitative approach, content analysis was conducted to draw insights and conclusions from the data. The MAXQDA software (version 2022) was used for data analysis and coding. Coding criteria included identifying key themes and analyzing recurring patterns in participants' comments.

In this study, the second version of the futures wheel was used to identify the social consequences of the coronavirus pandemic (6) by following three steps. In the first step (brainstorming), the name of the event or trend, representing one of the social effects of COVID-19, was written down at the center. Then, from this center, like the wheel of a bicycle, spokes were drawn outwards. The effects or preliminary results were written at the end of the rod. The secondary effects and results of the initial effect made the second ring of the wheel and this process continued. The viewpoints of two expert teams were used to collect and validate the data. The first team of experts included the members of the social departments of the Institute for Futures Studies in Health (IFSH), Kerman University of Medical Sciences. This team constantly monitored social changes. The second team included five distinguished national-level experts in the field of social work, recognized for their prolific publications and extensive expertise in social work, possessing comprehensive and firsthand knowledge. First, the experts of the first group listed the most important social effects of the pandemic by holding brainstorming sessions and searching for related information sources. Then, these effects were coded openly, each given a short title. Social effects were complemented by interactions with the members of other IFSH departments such as economic, political, environmental, education, and health departments, to analyze other pandemic effects. According to the STEEP model, this development continued until a useful picture of the social effects of the pandemic was revealed.

In the second step (realism), the mentioned items were accurately assessed and the cases were evaluated as much as possible. For this purpose, the list of effects was shared with the experts of the second group, and their comments were received by completing the provided text. In addition, the effects were classified based on (1) opportunity and threat and (2) time interval (short-term and long-term) by both groups of experts.

In the third step (consensus), collective agreement was achieved step by step regarding the rings. In this final step, the futures wheel was finalized and the table of opportunities and threats was sent back to the experts to collect further feedback. Cases with a support rate of more than 70% were placed on the futures wheel as final factors.

In qualitative research, the criteria proposed by Lincoln and Guba, including credibility, transferability, dependability, and confirmability are often used to establish the validity and reliability of data. In this study, several strategies were used to increase credibility, including prolonged interaction with the data. The researchers spent enough time to build trust and rapport. Findings were also shared with the participants to confirm and validate the data. To increase transferability, the researchers provided detailed descriptions of the research context, process, and participants. This allows readers to assess the relevance and applicability of the findings to their contexts. Furthermore, dependability was ensured by maintaining a clear audit trail, which included documenting the research process and any decisions, changes, or modifications made. Finally, to increase confirmability, an external audit was used to review and validate the research process and findings.

Results

The first layer of social effects due to the outbreak of COVID-19 was divided into six categories: home quarantine, social responsibility, social distancing, social security, increased risk for vulnerable social groups, and the use of social networks (Figure 1). Each item involves the consequences of the second and third layers, which are mentioned below separately.

Home quarantine

The second layer: Increased identity and value crisis, enhanced self-care practices, increased co-presence of family members, more focus on parenting skills, and higher resilience in families experiencing crisis were mentioned as consequences of home quarantine. The third layer: Each social consequence in the second layer may cause further effects; for example, the identity and value crisis may lead to staging social protests, reevaluating individual and family values, and changing attitudes toward the relationship between human societies. Moreover, increased co-presence of family members can lead to increased breach of personal privacy within the family and higher pregnancy and abortion rates.

"One of the social effects of COVID-19 is the increase in self-care practices as people have to stay at home" (Participant 1).

Social responsibility

The second layer: According to the experts' viewpoints, the secondary effects of social responsibility in the future may lead to an increase in the participation of social institutions, non-governmental organizations (NGOs), local groups, and businesses as well as public involvement. It can also enhance social trust in medical and nursing staff, the role of civil society, intragroup social capital, the sense of social responsibility for public health, and the social responsibility of international institutes for the health of developing countries. Moreover, it strengthens public participation, local groups and agencies, and the role of civil society.

The third layer: Increasing the involvement of social institutions and NGOs probably leads to paying more attention to the health of donors and strengthens the social responsibility of the private sector. Furthermore, an increase in social cohesion is anticipated as individuals assume greater responsibility for the intragroup social health.

"One of the positive social effects of COVID-19 is the heightened sense of social responsibility in institutions providing healthcare services, governmental organizations, and NGOs" (Participant 2).

Social distancing

The second layer: Social distancing might lead to various social effects in the future such as social stigma, increased individualism, reduced traffic-related problems, changes in the emigration process, communication culture, and social interaction, reduced significance of traditional and religious ceremonies, and changes in inter- and intra-city travel patterns.

The third layer: The reduction of traffic-accident deaths and disabilities could be one of the outcomes of social distancing in the future. Consequently, it is anticipated that the number of female-headed households due to husband's death in accident will also decrease. It is also possible that the decrease in the income of peddlers and child laborers due to the reduction of inter- and intracity travels may force them to engage in alternative illicit activities to earn a living. Besides, heightened social stigma within the community can be another consequence of



Figure 1. Social effects caused by the outbreak of COVID-19

social distancing.

"What we observed was social distancing. Communication and social interaction changed a lot and this had a devastating effect" (Participant 3).

Social security

The second layer: COVID-19 might have various effects on social security including increased violence, crime, social unrest, and armed robbery due to unemployment, neglecting refugees and illegal immigrants, and increased urban defenseless spaces.

The third layer: Reduced social security can be one of the implications of COVID-19 at this layer.

"Considering the rise in violence, it can be said that there has been a decrease in social security..." (Participant 4).

Increased risk for vulnerable social groups

The second layer: The COVID-19 outbreak may put vulnerable groups at a higher risk. Thus, it may lead to an increase in rates of alcohol and drug abuse, the incidence of mental disorders, the prevalence of social disorders, the vicious disease cycle, poverty, and social issues. It may also result in an increased risk of infection and mortality in vulnerable populations (addicts, beggars, sex workers, child laborers, etc.).

"The changes induced by COVID-19 have put vulnerable social groups in a very bad situation" (Participant 5).

Use of social networks

The second layer: Concerning the use of social networks during the COVID-19 outbreak, a wider use by the public is expected in the future. In addition, there is the probability of an increase in rumors and dissemination of unreliable news, enhanced media literacy, greater expression of public opinion on government performance, strengthened virtual communication through social networks, faster and easier access to new information, more ethical deviations, and improved cyberspace skills of the elderly and children.

The third layer: The increase in rumors and unreliable news may lead to increased levels of stress and anxiety in society as well as distrust in social media. Equitable access to information and the same level of awareness will probably result in fast and easy access to social networks among the population.

"It seems that the use of social networks and virtual communication increased..." (Participant 6).

Opportunities and threats

The social consequences of COVID-19 explained by the expert were classified into two categories: opportunities and threats. As shown in Figure 2, the opportunities included the strengthened role of civil society, enhanced self-care practices, improved communication skills in the family, increased intragroup social capital and initiatives of NGOs to provide services to the target group, decreased female-headed households due to husband's death in accident, and improved sense of responsibility for social health.

In contrast, breach of privacy in the family, social stigma, individualism, increased abortion rates, violence, behavioral deviations, social protests, class disparities, and social disorders were identified as social threats caused by COVID-19.

Temporal horizon of effects

Based on the findings, it is anticipated that Iranian society will encounter certain threats in the short term including violation of privacy within the family, individualism, social stigma, social exclusion, domestic violence, and increased abortion rates. These threats manifest as social protests, class disparities, and social disorders in the long term. In the short term, opportunities such as decreased female-headed households and increased intragroup social capital can also be predicted. If the opportunities arising from the social impacts of the COVID-19 pandemic are effectively utilized, a strengthening of the role of civil society is to be expected in the long term.

Discussion

The COVID-19 pandemic has become a global crisis with far-reaching implications worldwide. Beyond its health impacts, this crisis poses a significant threat to the socio-economic life of people. It is predicted that the consequences of this crisis will lead to profound and lasting changes in people's lives. Therefore, this study was conducted to assess the social effects of COVID-19 in Iranian society.

Home quarantine, as one of the key strategies to control the spread of COVID-19, had profound, widespread and multifaceted effects on individuals' social and family lives, necessitating careful attention and management. In their study, Chu et al emphasized the various social consequences of quarantine during the COVID-19 pandemic, which is consistent with the results of this study (7).

The spread of the coronavirus not only impacted public



Figure 2. Opportunities and threats of COVID-19

health but also posed challenges to and strengthened the concept of social responsibility across various societies. Social responsibility entails paying attention to public interests and cooperating to improve the quality of social life. The results of Severo and colleagues' study showed that the COVID-19 pandemic significantly influenced changes in people's behavior, reflecting social responsibility, which is consistent with the results of the present study (8).

Social distancing contributed to reducing the spread of the virus while fostering new modes of communication. It is essential to design and implement programs to support mental health and strengthen social connections. Creating opportunities for virtual interactions and promoting remote social activities can help enhance social bonds and diminish feelings of isolation. The study by Thu et al emphasized that social distancing measures were implemented in almost all countries during the COVID-19 outbreak (9).

Based on the findings, other effects of the COVID-19 pandemic on social security can be identified. Social security refers to the sense of security and support in society and includes various aspects such as personal safety, mental health, and economic stability. Kalinowski et al investigated household social security during the coronavirus pandemic, revealing a decline in social security during the COVID-19 pandemic (10).

The spread of the coronavirus also had significant negative effects on vulnerable social groups. These groups, characterized by heightened economic, racial, gender, or social risks, highlight the need to develop sustainable and effective support systems by policymakers. Moreover, measures should be taken to promote social justice and improve the quality of life for these groups. The study by Calderón-Larrañaga et al demonstrated that COVID-19 affects individuals who are not only biologically but also socially vulnerable, which aligns with the results of this study (11).

The restrictions imposed due to the coronavirus led to significant changes in social communication modes and the use of social networks. These changes had significant effects on the social lives of individuals and communities. It is necessary to provide training on media literacy and the appropriate use of information available on social networks. The findings from Kaya's study indicated that social media usage during COVID-19 showed differences compared to usage during normal times, with users perceiving that decision-makers changed their choices in response to social media (12).

The findings showed that the future outbreak of coronavirus disease could have positive and negative effects at individual, family, and social levels in the short and long term. One of the opportunities induced by the social effects of COVID-19 as predicted in this study was increased intragroup social capital and social cohesion.

Ashcroft et al believe although the current crisis may have a negative impact on social capital due to social distancing, social media can serve as an effective tool for enhancing social capital (13).

According to research findings, the use of social networks can be both useful and harmful. The excessive use of virtual networks and cyberspace by children is one of the threats posed by these networks. However, faster access to useful information and the strengthening of social communication have been mentioned as positive implications of the use of social networks.

Each year, many people become disabled or die due to road traffic injuries (14), the reduction of which was identified as one of the short-term opportunities in this study. Accordingly, the results pointed to a reduction in mortality and disability rates as well as the number of female-headed households due to decreased inter- and intra-city travels during the COVID-19 pandemic.

Social stigma and discrimination are risk factors of COVID-19 affecting individual and social life (15). The WHO has also emphasized the importance of implementing interventions to reduce the stigma faced by the patients, regions, and countries involved (16). In this study, social stigma was identified as a short-term threat.

Other studies have indicated that the recent crisis could lead to an increase in domestic violence (17) and gender inequality and pose a threat to the lives of marginalized people (18). The results of a study conducted in Iran showed that the mean domestic violence against women in all participants was 34.9. In addition, 26.6%, 26.1%, and 21.2% of the participants experienced high levels of physical, emotional, and sexual violence during the COVID-19 pandemic, respectively. Besides, lower age, illiteracy/primary education, previous marriage(s), and unwanted/unwise marriage were the significant risk factors for domestic violence against women.

In the present study, domestic violence was identified as a short-term consequence of the virus outbreak. The other social consequences included alcohol and drug addiction, crime, and theft. Vulnerable social groups usually suffer the most from unexpected crises and are at greater risk of harm because of their limited access to training and healthcare services, social stigma, and discrimination (19,20). A study investigated the cognitive and emotional well-being of preschool children during the COVID-19 pandemic and explored how the pandemic affected young children's mental health and development. The findings shed light on the threats and opportunities during this unprecedented event. It is important to note that the pandemic has had a significant impact on children worldwide, including those in Iran. Isolation due to social distancing measures has affected their well-being, and understanding these effects is crucial for targeted interventions (4). In this study, vulnerable groups including child laborers, the elderly, femaleheaded households, beggars, sex workers, drug abusers, the homeless, and prisoners were considered to be at higher risk.

The present crisis not only has short-term effects with anticipated long-term consequences but also prompts social structures and actions to undergo reevaluation. In general, governments usually provide supportive mechanisms for the public, especially vulnerable groups in such situations.

This study showed that in addition to support packages aimed at enhancing the financial strength of the target groups, it is necessary to develop social resilience programs for families and vulnerable groups to reduce the potential consequences and harms of COVID-19.

Limitations and future research

This study had some limitations. While focusing on the social impacts of the COVID-19 pandemic, distinguishing them from other health and economic effects was challenging. Moreover, participants in this study held national positions at macro-political levels, potentially overlooking social issues stemming from the crisis in rural and small-town settings. Future research could examine the variables identified in this study using quantitative methods and modeling techniques.

Practical implications

Public health focuses on a wide range of determinants of health, employing different community organizing methods, empowerment strategies, and ecological approaches (21). Alongside other healthcare professionals, social workers are at the forefront of providing public health services in epidemic crises (22,23). Engaging in case management and direct clinical practice, utilizing empowerment strategies, participating in policy-making, and providing psychosocial support for individuals, families, groups, and communities are among the key measures social workers take in such conditions (24-26). Social workers' involvement in public health dates back to the early 20th century when they contributed to managing communicable diseases, maternity housing initiatives, and mother and child health programs (21,27). To address the social consequences and complications of COVID-19, social workers can take the following measures to provide professional services for individuals, groups, and communities:

Individual social work

The lockdown and the pressure caused by being confined in closed spaces increased the risk of developing obsessive-compulsive disorder and anxiety. According to studies, Iranian people were already exposed to mental health concerns and disorders before the COVID-19 outbreak (28), and the prevalence of anxiety and mental disorders significantly increased among them after the

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outbreak (29,30). One of the duties of social workers is to use telephone-based and remote interventions to provide counseling aimed at reducing stress in individuals and families. Furthermore, providing social support during emergencies and using hotlines are other measures to prevent domestic violence (31). The most difficult and sensitive task in the healthcare system is giving bad news to the patients' families about their critical conditions or death. Delivering bad news can have lasting effects on the memories of patients and their families. Studies conducted on patients' families emphasized that the healthcare staff are expected to show empathy, honesty, and transparency, allow families to ask questions, and guide them through the process (32). Therefore, providing grief counseling for survivors becomes doubly crucial following the loss of loved ones (33).

Social workers educate patients on self-care practices (e.g., performing some medical procedures, providing psychological/mental self-care, and making social and family interactions) and train family members to take care of patients.

Hospital social workers play a pivotal role in fostering connections between patients, families, the hospital, and the community. Helping patients to understand and adapt to hospital processes, elaborating and explaining medical programs, facilitating emotional expression, improving patient-family communication through digital tools, and assisting families with financial planning are among the duties of social workers as members of the medical team.

Community social work

Studies on determinants of health have shown that during a pandemic, people with low socioeconomic status are at greater risk of death, poverty, and social harm (34,35). In these conditions, social workers are the pioneers paving the way to meeting the needs of marginalized and vulnerable populations by allocating resources and facilities. These efforts involve negotiating with governmental and non-governmental organizations and officials and raising awareness in civil society through mass media.

Establishing social health centers in high-risk areas, particularly in suburbs, educating and awareness raising, and providing counseling to reduce stress represent effective strategies. Organizing local networks, communities, and non-governmental organizations to allocate resources to meet the needs of homeless people, working children, street children, and female heads of household can be mentioned as the achievements of social workers (31,36). Launching information and awareness-raising campaigns to reduce the social stigma associated with COVID-19 is another task social workers can engage in. Evidence-based practice should be followed by all stakeholders to enable appropriate decisions and timely action (37,38).

Conclusion

People are exposed to long-term and short-term psychological and social consequences of the COVID-19 pandemic. Threats may manifest as social protests, class disparities, and social disorders in the long term. Opportunities such as reduced female-headed households and increased intragroup social capital can also be predicted in the short term. Furthermore, it is expected that the role of civil society will be strengthened in the long term.

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Competing Interests

All authors declare that there is no conflict of interest in this study.

Ethical Approval

This research project was approved by Kerman University of Medical Sciences with the code of ethics IR.KMU.REC.1401.438.

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References

- Mirzaee MS, Salamat A, Mardani-Hamooleh M, Abbasi Z, Salehi T. Nurses' challenges in caring for patients with COVID-19: a qualitative study. J Qual Res Health Sci. 2022;11(3):189-95. doi. 10.34172/jqr.2022.06. [Persian].
- Tian H, Liu Y, Li Y, Wu CH, Chen B, Kraemer MUG, et al. An investigation of transmission control measures during the first 50 days of the COVID-19 epidemic in China. Science. 2020;368(6491):638-42. doi: 10.1126/science.abb6105.
- 3. Baldwin R, di Mauro BW. Economics in the Time of COVID-19. Paris, London: CEPR Press; 2020.
- Finegold KE, Knight JA, Hung RJ, Ssewanyana D, Wong J, Bertoni K, et al. Cognitive and emotional well-being of preschool children before and during the COVID-19 pandemic. JAMA Netw Open. 2023;6(11):e2343814. doi: 10.1001/jamanetworkopen.2023.43814.
- 5. Chen KH, Hoffman J. Serious play: transforming futures thinking through game-based curriculum design. J Futur Stud. 2017;22(2):41-60. doi: 10.6531/jfs.2017.22(2).a41.
- Haghdoost AA, Dehnavieh R, Kalavani K. The impact of COVID-19 on global health and the strategies to control it: the futures wheel model. Payesh. 2021;20(5):629-31. doi: 10.52547/payesh.20.5.629. [Persian].
- Chu IY, Alam P, Larson HJ, Lin L. Social consequences of mass quarantine during epidemics: a systematic review with implications for the COVID-19 response. J Travel Med.

2020;27(7):taaa192. doi: 10.1093/jtm/taaa192.

- Severo EA, De Guimarães JC, Dellarmelin ML. Impact of the COVID-19 pandemic on environmental awareness, sustainable consumption and social responsibility: evidence from generations in Brazil and Portugal. J Clean Prod. 2021;286:124947. doi: 10.1016/j.jclepro.2020.124947.
- Thu TPB, Ngoc PN, Hai NM, Tuan LA. Effect of the social distancing measures on the spread of COVID-19 in 10 highly infected countries. Sci Total Environ. 2020;742:140430. doi: 10.1016/j.scitotenv.2020.140430.
- Kalinowski S, Łuczak A, Koziolek A. The social dimension of security: the dichotomy of respondents' perceptions during the COVID-19 pandemic. Sustainability. 2022;14(3):1363. doi: 10.3390/su14031363.
- Calderón-Larrañaga A, Dekhtyar S, Vetrano DL, Bellander T, Fratiglioni L. COVID-19: risk accumulation among biologically and socially vulnerable older populations. Ageing Res Rev. 2020;63:101149. doi: 10.1016/j.arr.2020.101149.
- 12. Kaya T. The changes in the effects of social media use of Cypriots due to COVID-19 pandemic. Technol Soc. 2020;63:101380. doi: 10.1016/j.techsoc.2020.101380.
- Ashcroft R, Sur D, Greenblatt A, Donahue P. The impact of the COVID-19 pandemic on social workers at the frontline: a survey of Canadian social workers. Br J Soc Work. 2022;52(3):1724-46. doi: 10.1093/bjsw/bcab158.
- Abri S, Zahedi Asl M. Medical social workers: current roles and tasks. J Qual Res Health Sci. 2019;8(2):96-106. [Persian].
- He J, He L, Zhou W, Nie X, He M. Discrimination and social exclusion in the outbreak of COVID-19. Int J Environ Res Public Health. 2020;17(8):2933. doi: 10.3390/ijerph17082933.
- World Health Organization (WHO). Mental Health and Psychosocial Considerations During the COVID-19 Outbreak, 18 March 2020. WHO; 2020.
- Usher K, Bhullar N, Durkin J, Gyamfi N, Jackson D. Family violence and COVID-19: increased vulnerability and reduced options for support. Int J Ment Health Nurs. 2020;29(4):549-52. doi: 10.1111/inm.12735.
- 18. Jha AV, Appasani B. nCOVID-19: social and economic impacts. Conference: 1st International Conference-2020 on "COVID-19: Lives and Livelihood. Bhubaneswar: KIIT University; 2020. Available from: https://www.researchgate. net/profile/Jha_Vidyakant/publication/341349723_ nCOVID-19_Social_and_Economic_Impacts/ links/5ebbe62aa6fdcc90d67291b7/nCOVID-19-Social-and-Economic-Impacts.pdf.
- Deilamizade A, Moghanibashi-Mansourieh A. Challenges of providing COVID-19 prevention services to homeless people who use drugs in Iran. Int J Drug Policy. 2020;83:102806. doi: 10.1016/j.drugpo.2020.102806.
- Motie M, Baluchi M, Dehnavieh R, Kalavani K. Educating nurses and improving their resilience during the COVID-19. Biomed J Sci Tech Res. 2021;32(5):25374-5. doi: 10.26717/ bjstr.2021.32.005323.
- 21. Ruth BJ, Marshall JW. A history of social work in public health. Am J Public Health. 2017;107(S3):S236-42. doi: 10.2105/ ajph.2017.304005.
- Redondo-Sama G, Matulic V, Munté-Pascual A, de Vicente I. Social work during the COVID-19 crisis: responding to urgent social needs. Sustainability. 2020;12(20):8595. doi: 10.3390/ su12208595.
- Browne T, Keefe RH, Ruth BJ, Cox H, Maramaldi P, Rishel C, et al. Advancing social work education for health impact. Am J Public Health. 2017;107(S3):S229-35. doi: 10.2105/ ajph.2017.304054.
- 24. Dos Santos LM. The challenges of public health, social work, and psychological counselling services in South Korea: the

issues of limited support and resource. Int J Environ Res Public Health. 2020;17(8):2771. doi: 10.3390/ijerph17082771.

- 25. Dehnavieh R, Kalavani K. Management-supportive measures for managers of healthcare organizations during the COVID-19 epidemic. Infect Control Hosp Epidemiol. 2020;41(7):878. doi: 10.1017/ice.2020.108.
- Motie M, Dehnavieh R, Kalavani K. Management of diagnostic and treatment centers in the second wave of COVID-19. J Clin Haematol. 2020;1(2):54-5. doi: 10.33696/ haematology.1.007.
- 27. Noorbala AA, Rafiey H, Alipour F, Moghanibashi-Mansourieh A. Psychosocial stresses and concerns of people living in Tehran: a survey on 6000 adult participants. Iran J Psychiatry. 2018;13(2):94-102.
- Moghanibashi-Mansourieh A. Assessing the anxiety level of Iranian general population during COVID-19 outbreak. Asian J Psychiatr. 2020;51:102076. doi: 10.1016/j.ajp.2020.102076.
- 29. Agwu P, Okoye U. Social work and COVID-19: a gap in Nigeria's intervention. Int Soc Work. 2021;64(5):761-70. doi: 10.1177/0020872820980799.
- Mousavi Chelak SH, Moghanibashi-Mansourieh A, Yazdani A. Pandemic in Iran: psychosocial issues and social work response. International Journal of Innovation, Creativity and Change. 2020:105-15.
- Rassin M, Dado KP, Avraham M. The role of health care professionals in breaking bad news about death: the perspectives of doctors, nurses and social workers. Int J Caring Sci. 2013;6(2):227.
- 32. Vahdani B, Javadi SM, Sabzi Khoshnami M, Arian M. Grief

process and the COVID-19 pandemic: wise intervention in vulnerable groups and survivors. 2020;14(2):e103855. doi: 10.5812/ijpbs.103855.

- 33. Bambra C, Riordan R, Ford J, Matthews F. The COVID-19 pandemic and health inequalities. J Epidemiol Community Health. 2020;74(11):964-8. doi: 10.1136/jech-2020-214401.
- Patel JA, Nielsen FB, Badiani AA, Assi S, Unadkat VA, Patel B, et al. Poverty, inequality and COVID-19: the forgotten vulnerable. Public Health. 2020;183:110-1. doi: 10.1016/j. puhe.2020.05.006.
- 35. Mehri S, Habibi Soola A, Mohammadi MA, Hamidkholg G, Dadkhah B. Exploring managers' experiences of hospital disaster preparedness: a qualitative study. J Qual Res Health Sci. 2022;11(3):156-63. doi: 10.34172/jqr.2022.02.
- Alavi M, Moghanibashi-Mansourieh A, Radfar SR, Alizadeh S, Bahramabadian F, Esmizade S, et al. Coordination, cooperation, and creativity within harm reduction networks in Iran: COVID-19 prevention and control among people who use drugs. Int J Drug Policy. 2021;93:102908. doi: 10.1016/j. drugpo.2020.102908.
- 37. Ebadifard Azar F, Rezapour A, Mousavi Isfahani H, Azami-Aghdash S, Kalavani K, Mahmoudi F. Evidence- based medicine performance among health care providers in Iranian hospitals: a nationwide survey. Med J Islam Repub Iran. 2017;31:77. doi: 10.14196/mjiri.31.77.
- Kalavani K, Mohebbifar R, Rafiei S. Evidence based practice among healthcare providers: a cross-sectional study. Int J Health Care Qual Assur. 2019;32(5):867-78. doi: 10.1108/ ijhcqa-08-2017-0162.