# Arab Prophylactic Measures to Protect Individuals with Disabilities from the Spread of COVID-19

Suhail Mahmoud Al-Zoubi<sup>1</sup> and Bakkar Suleiman Bakkar<sup>1</sup>

<sup>1</sup>Department of Psychology, Sultan Qaboos University, Sultanate of Oman

## **HOW TO CITE:**

# Al-Zoubi, S.M., Bakkar, B.S. (2021). Arab Prophylactic Measures to Protect Individuals with Disabilities from the Spread of COVID-19. International Journal of Special Education, 36(1), 69-76

# **CORRESPONDING AUTHOR:**

Suhail Mahmoud Al-Zoubi; smalzoubi@squ.edu.om DOI: https://doi.org/10.52291/

ijse.2021.36.7

# **COPYRIGHT STATEMENT:**

Copyright: © 2021 Authors.

Open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).

# **ABSTRACT**

This descriptive research aimed to assess the prophylactic measures used to deal with individuals with disabilities (IDs) during the COVID-19 pandemic in Arab countries. The United Nations Economic and Social Commission report for Western Asia (ESCWA, 2020) has been reviewed. This report included prophylactic measures to protect IDs during the COVID-19 pandemic in 15 Arab countries. The methodology of this research included using an analysis method to identify the nature and viability of the prophylactic measures used in Arab countries during the pandemic. The result showed that 65% of Arab prophylactic measures were governmental, and 35% were non-governmental. 55% of these measures dealt with all disability categories, 30% for hearing impairment, 10.83% for intellectual and developmental disabilities, and 4.17% for visual impairment. Saudi Arabia and Jordan were the most Arab countries that provided prophylactic measures to IDs during the COVID-19 pandemic.

*Keywords:* Arab countries; COVID-19 pandemic; individuals with disabilities; prophylactic measures

www.internationalsped.com 69

## **INTRODUCTION**

The Coronavirus pandemic (COVID-19) is a global emergency affecting societies around the world. As a result, the pandemic has caused international concern and a health, psychological and social emergency because of the possibility of this virus being transmitted from one person to another (Abdelfattah et al., 2021). Consequently, COVID-19 has become widespread and transcends international borders. It also became prevalent in rich and poor societies and between adults and children, and males and females. The Covid-19 pandemic has revealed challenges in meeting health, education, and employment services IDs and integrating them into various Arab countries. This pandemic provided an opportunity to reflect on the reconstruction of an inclusive society for IDs through a systematic change in the social, economic, educational, and health dimensions.

The countries of the world have implemented a set of prophylactic measures and issued instructions to limit the spread of the virus. Therefore, these countries resorted to obliging people in social distancing, home quarantine and quarantine for those infected with this virus (Wilder-Smith & Freedman, 2020), in addition to closing public and private institutions (Lim et al., 2021). The large numbers infected with the virus contributed to affecting health services and may lead to humanitarian disasters and human, economic and financial losses (Usher et al., 2020), wich due to the suspension of the wheel of life.

The countries of the world must provide preventive measures that limit the spread of the virus to the socially marginalized. IDs and the elderly are subjected to marginalization and social exclusion before this pandemic. The policy of social exclusion of IDs is still practiced in some societies. The low opportunities for participation and interaction and their social marginalization are evidence that societies are still following this policy (Al-Otaibi et al., 2015), The programs and services provided to IDs in special education centers need to highlight social justice, job opportunities, and health care (Al-Zoubi & Bani Abdel Rahman, 2017).

The IDs are among the groups most at risk of afflicting with coronavirus. This group whose number is around one billion worldwide is considerably impacted by the COVID-19 (Armitage & Nellums 2020). IDs are highly susceptible to respiratory diseases and complications (Proesmans, 2016), that often result from being

infected with diseases associated with disability. Likewise, IDs face obstacles that make them vulnerable to infection due to unhygienic lifestyles, such as rub and handwashing carefully, and other daily living skills (Cannella-Malone et al., 2011), some of them have difficulty describing their health problems and symptoms of their illnesses to healthcare professionals (Ward et al., 2010). Individuals with visual impairment need to touch objects to obtain information (Withagen et al., 2013), while individuals with physical and health disabilities need physical support through occupational and physical therapy (Morris & Jenkins, 2018), these things may expose IDs to infection. Thus, educational programs based on multimedia contribute to teaching handwashing and other daily living skills to IDs (Lee & Lee, 2014).

Internationally, IDs suffer from health inequalities, and their health needs are not met compared to persons without disabilities (Doherty et al., 2020). In this regard, parents of IDs expressed low satisfaction with telehealth, televisitation sessions, and telerehabilitation that provided for their children during the COVID-19 pandemic (Murphy et al., 2021). This pandemic may pose a threat and negative impacts on the health and well-being of IDs, and where they took more medicines during this pandemic (Masi et al., 2021). This pandemic has negative educational, health, and social repercussions for IDs and their families, and they have not been the focus of international discussions that focused on the elderly (Houtrow et al., 2020).

The IDs may face difficulties in adhering to social distancing and self-isolation due to their need for other forms of support. They are affected more than others by the pandemic due to the sudden halt of many of the services they depend on. They face significant barriers to accessing relevant health information and messages making it difficult for them to decide on how to protect themselves and how to obtain essentials and services during the quarantine period. For these reasons, efforts must be concerted to prevent IDs from being neglected and benefit from the prophylactic measures to safeguard from the spread of the COVID-19 pandemic. Moreover, the efforts should be also redoubled to ensure that IDs have full access to the necessary information, health care services, and forms of supports they need so that they have good health and safety.

In rural communities, special education services for IDs were significantly disrupted during COVID-19. Con-

tributing factors to this were related to high rates of poverty, lack of funding and staffing for health care, chronic illness, and barriers to e-learning due to lack of access to the internet and technology (Running Bear et al., 2021). The World Health Organization (WHO) has launched a policy to ensure that IDs benefit from the COVID-19 pandemic response plan and recover from it. This policy included disability inclusion, ensuring access to information, facilities, services, and programs, in addition to ensuring meaningful consultation with IDs, and the need for their active participation, inclusion and benefit from the mechanisms included in all stages of the response and recovery process for this epidemic. (United Nations, 2020). To achieve this policy, WHO divided these measures into three groups: measures are directed to IDs, and measures are directed to the caregivers and those ones that rest on the shoulders of the governments (WHO, 2020).

More than 100 million people with a percentage of 15%, in the Eastern Mediterranean Region, whose countries are members of the World Health Organization, suffer from some form of disability according to WHO statistics (World Health Organization, 2020). The data of the organization's global report on disability indicates that 50% of individuals with disabilities are unable to afford the costs of health care services, as they face challenges that prevent them from getting access to those services. With the COVID-19 pandemic, it is imperative for all people including IDS to follow basic measures to protect their selves from being infected with the virus. Social distancing and self-isolation are difficult for some individuals with disabilities. All caregivers must ensure that these individuals are not left out of these concerned services and various forms of care during COVID-19 but rather should be treated with respect and dignity without any form of discrimination.

In this context, the Economic and Social Commission for Western Asia (ESCWA), as part of its efforts to support Arab countries to include IDs in their policies and plans by conducting a survey of the precautionary and prophylactic measures taken by Arab governments, and creating the awareness materials, governmental and nongovernmental websites that are appropriate and accessible to IDs. This initiative motivated many stakeholders in Arab countries to take additional measures to overcome the barriers faced by IDs during COVID-19. As a result, more governmental measures were implemented and a large amount of appropriate educational, enlightening, and outreach materials were produced (ESCWA, 2020).

# ARAB PROPHYLACTIC MEASURES

According to the report of ESCWA (2020), Arab state governments (ASG) and Arab nongovernmental organizations (NGOs) have taken a set of preventive measures against the spread of COVID-19 in IDs. These measures focused on disseminating awareness among IDs and their caregivers. The following is a summary of the Arab measures against the spread of COVID-19 among IDs (ESCWA, 2020).

- Hashemite Kingdom of Jordan: The governmental institutions and NGOs joined efforts in presenting a set of health, social, educational and mass communication measures. These measures included the adaptation of general and higher education curricula, examinations, computerized educational programs, and educational channels on YouTube for IDs and their families. The Higher Council for the Rights of Persons with Disabilities to enhancing the rights of Jordanian IDs during this pandemic. This council has issued directives to the Ministry of Health on healthcare for IDs. It also had an effective role in facilitating the access of IDs to e-learning systems, in collaboration with the Ministry of Education and the Ministry of Higher Education.
- United Arab Emirates (UAE): The UAE has adopted a
  health program to protect IDs from COVID-19 and
  follow them in their homes. Applying distance education through government institutions and associations.
  The Sharjah City for Humanitarian Services provided
  many services to IDs and their families, and the Dubai
  Future Foundation published educational material for
  IDs to preserve their health and the safety of their family during Covid-19 pandemic.
- Kingdom of Bahrain: The Bahraini government has allocated an additional budget to support IDs and their families by Ministry of Social Development. The Ministry of Education has activated distance education and contact with parents of IDs via WhatsApp.
- Republic of Tunisia: The Ministry of Social Affairs allocated a financial budget to IDs and their families. The media contributed to translating the Ministry of Health's instructions into sign language. Several Tunisian organizations, institutions and associations, in collaboration with UNESCO, have launched an online platform for IDs and their families.
- Republic of Sudan: The Ministry of Health and Sudanese associations provide health awareness campaigns and instructions in sign language for individuals with hearing impairment.

- Republic of Iraq: The Iraqi media and the WHO have contributed to spreading and promoting health awareness among individuals with hearing impairment about the pandemic by using sign language in television programs.
- Sultanate of Oman: The Ministry of Education launches the distance learning initiative to transferring e-learning means among IDs. The decisions of the Omani committee in charge of dealing with CO-VID-19 pandemic were translated into sign language.
- State of Palestine: Preventive measures are the result of joint efforts between Ministry of Health and Ministry of Social Development, in collaboration with the United Nations to promote the health rights of Palestine IDs during the pandemic. The associations and organizations of community-based rehabilitation (CBR) have also contributed to providing all forms of support to IDs and their families.
- State of Qatar: Implementing distance education for IDs in Qatari general and higher education institutions. The Ministry of Health launched an electronic platform to train families of children with autism spectrum disorder. In addition, providing psychological, educational and health services and counseling to families of IDs by special education centers.
- State of Kuwait: The Committee on the Rights of Persons with Disabilities has developed awareness-raising materials and published them through social media. This Committee launched an initiative to prevent IDs from the COVID-19, in collaboration with institutions, associations and the United Nations Organization.
- Lebanese Republic: The Ministry of Health has translated awareness messages on ways to prevent CO-VID-19 into sign language. Including IDs in the distance learning platform of the Ministry of Education and Higher Education.
- Libyan Arab Republic: The Libyan government has provided reports to support IDs during COVID-19.
   The National Planning Council prepares an emergency strategy to prevent COVID-19 outbreaks among IDs.
- Arab Republic of Egypt: Giving IDs working in government sectors special leave with full pay, as well as mothers of children with disabilities. The National Council of Persons with Disabilities explains symptoms of the COVID-19 in sign language. Designed media programs, posters and educational leaflets about the pandemic for IDs. There are joint efforts between Egyptian institutions, associations and centers

- of special education in protecting persons with visual and hearing impairments and autism from this pandemic.
- Kingdom of Morocco: The Ministry of Solidarity, Community Development, Family and Equality in Morocco, in partnership with the United Nations, launched program to support IDs. This ministry, in partnership with national organizations and associations, has issued measures to support and ensure the continuity of education for IDs.
- Kingdom of Saudi Arabia: Institutions, associations and Authority for Persons with Disabilities have contributed to the issuance of educational and awareness raising materials on the COVID-19 pandemic. The Ministry of Health provided health reports in sign language. Distance education has been provided to IDs, in addition to holding lectures and seminars on methods of preventing this pandemic.

#### **METHODS**

# Methodology

The analytical descriptive approach was used to determine the prophylactic measures taken by Arab countries to prevent the spread of COVID-19 among IDs. This approach used the content analysis method of the report issued by ESCWA (2020).

# **Participants**

The participants consisted of 15 Arab countries. The report of ESCWA (2020) included only those Arab countries which provided precautionary and prophylactic measures during the COVID-19 pandemic for IDs.

# DATA COLLECTION

A content analysis card was designed. The card includes three elements related to the type of disability, level of measures, and the country that issued these prophylactic measures. To verify the face validity. Three faculty members at Sultan Qaboos University have reviewed this card. Subsequently, 95% of reviewers indicated that the card elements are consistent with the contents of the ESCWA's report. Inter-rater reliability was used to assess the reliability of the card. The authors of this research were applied card elements to the ESCWA report. The mean of the agreement between authors reached 87% using Cooper's test.

Table 1. Descriptive analysis according to level of measures

Level of Measures	Frequency	Percentage %
Governmental	78	65
Non-Governmental	42	35
Total	120	100

## **RESULTS**

Table 1 showed the percentage and frequency of Arab prophylactic measures according to the level of measures. The percentage of governmental institutions was 65% in opposite to 35% of non-governmental organizations in Arab countries.

Table 2 showed differences in the percentage of Arab prophylactic measures according to the type of disability. Table 2 indicated that 55% of prophylactic measures for all disability categories, while it was 4.17% for individuals with visual impairment.

Table 3 showed differences in the percentage of Arab prophylactic measures according to the country name. Table 3 indicated that 20.83% of Arab prophylactic measures in the Kingdom of Saudi Arabia, while it was 1.67% in Bahrain, Lebanese, Libyan, and Sudan.

# **DISCUSSION**

Results showed that Arab prophylactic governmental measures are more comprehensive and accessible than those of nongovernmental organization measures to safeguard IDs from the spread of COVID-19. This implies that the category of IDs as the rest of the individuals without di-

Table 2. Descriptive analysis according to type of disability

Disability Type	Frequency	Percentage %
All disabilities	66	55
Hearing impairment	36	30
Intellectual		
& developmental	13	10.83
disabilities		
Visual impairment	5	4.17
Total	120	100

Table 3. Descriptive analysis according to country name

Country Name	Frequency	%
Saudi Arabia	25	20.83
UAE	5	4.17
Jordan	21	17.5
Tunisia	4	3.33
Morocco	16	13.33
Iraq	3	2.5
Egypt	14	11.67
Bahrain	2	1.67
Qatar	7	5.83
Lebanese	2	1.67
Oman	6	5
Libyan	2	1.67
Kuwait	6	5
Sudan	2	1.67
Palestine	5	4.17

sabilities have received the same attention and interest regarding the preventive efforts and measures being used in the COVID-19 pandemic in the Arab countries. Governmental measures occupied considerable efforts concerted to protect IDs from COVID-19 compared to the nongovernmental ones due to many factors: first, the governments have diverse financial resources required to cover the costs of these measures, second, the governments have the political and military authority that should be imposed to be committed to implementing the necessary restrictive measures and maintaining the public order. Third, the governments have authority and supervision over the majority of institutions of special educations, fourth, the governments also have the authority on the general and higher education institutions, mass media, social medial, and internet. Moreover, the governmental measures occupied bigger space; because this infectious disease became a pandemic, and constituted a human and health crisis worldwide. Therefore, the governments of Arab countries imposed more severe and restrictive measures related to social distancing, comprehensive closure, and curfew. These measures seem effective in containing the spread of the virus and infection in individuals with and without disabilities. Arab countries realized that the deprived, the poor, IDs, and disadvantaged people are the most categories that bear heavy burdens because of the negative health, psychological, and social effects of the pandemic.

Arab governments also realized that the health care and services for IDs surpass those provided for individuals without disabilities. Consequently, Arab governmental institutions have taken the prophylactic measures mentioned earlier in the ESCWA report (2020), which implies that IDs need more urgent health and rehabilitation services. This great interest is due to the lack of professional providers and caregivers in special education. The pandemic led to more complications for IDs in getting access to these services. These complications constituted a heavy burden on IDs and their families working as caregivers.

Arab governmental measures came to create and maintain social equity among IDs and individuals without disabilities, in spite of economic, financial, and social challenges in some Arab countries. Achieving social equity for Arab IDs came as a response to the International Convention on the Rights of Persons with Disabilities (Al-Zoubi et al., 2021) which was originated to fully protect the rights of these individuals comprehensively. Health was one of the dimensions covered in this convention; that is IDs have the right of holding all health services without any bias or discrimination. Additionally, Arab governmental measures came also as a response to the Arab Decade for the IDs issued in 2003 by the Arab League (Al-Hadabi et al., 2021). This decade included a set of health services for IDs (Broderick & Ferri, 2019).

The results in table 2 showed that Arab prophylactic measures were directed respectively to all disabilities, hearing impairment, intellectual and developmental disabilities, and visual impairment. This implies that the majority of Arab institutions and centers of special education include all categories of disabilities, so Arab measures have been directed to all disabilities in general. This doesn't mean that other disabilities haven't received a great deal of interest and attention from the Arab governments. It is clearly evident that hearing impairment came in the second place in receiving prophylactic measures because individuals with this impairment need primarily hearing to know health information issued by governmental institutions and disseminate awareness on the pandemic via the mass media. This requires translation by sign language which is being used in all news and channels. Accordingly, Parents of IDs have played an important role in caring for and teaching their children during this pandemic. There are many reasons why parents prefer home education. Some are not satisfied with the current educational opportunities while others believe that children are not gaining an advantage with the traditional school arrangement (Martin 2020). Others parents believe that all forms of home education of their children with disabilities during the COVID-19 pandemic are essential (Cahapay, 2020). During this pandemic, parents used sign language to translate information coming from the television or phone messages to their children with hearing and intellectual disabilities or to simplify this information for them (Mbazzi et al., 2020), but individuals with hearing impairment have limited access to important public health information since much of the information was not made into accessible formats (Qi &Hu, 2020).

Therefore, it is important to provide informational and educational and health materials to limit the spread of this virus among IDs (Jalali, et al., 2020), hence, measures also must be focused on assistive technologies, critical services, adaptive learning methods, and other social services for IDs (Cahapay, 2021). Therefore, digitalized societies, digital and social media, and platforms have played a key role in how IDs dealt with COVID -19(Goggin &Ellis, 2020), to enhance facilitative measures for IDs, a sign language interpreter should be used at press conferences during this pandemic (Meng 2020). Also, targeted health education interventions should be directed to this vulnerable population during CO-VID-19 (Al-Hanawi et al., 2020).

Goggin and Ellis (2020) demonstrated that digital societies, digital and social media, and platforms have played a major role in how individuals with disabilities cope with the spread of COVID-19. Qi and Hu (2020) noted that due to the rapid spread of COVID-19, people with hearing impairments had limited access to important public health information because much of the information was not well organized, coordinated, and presented as well as could be accessed. They also stressed that the situation only improved when some local organizations and networks of persons with disabilities took the initiative to produce informational videos in sign language with accessible texts. To improve the necessary measures that help people with hearing impairments access the valuable information they need in China, the Beijing municipal government held a press conference that was translated into sign language for the first time to make information available to people with a hearing impairment. This conference was considered as a supportive gesture from the government (Meng 2020).

The results also showed that the Kingdom of Saudi Arabia and the Hashemite Kingdom of Jordan are the most Arab countries that have provided the best measures to cope with the pandemic. This may be due to the higher bodies/institutions for IDs, such as the Authority for Persons with Disabilities in Saudi Arabia, and the Higher Council for the Rights of Persons with Disabilities in Jordan. These bodies mainly contributed to draw up the health policies in both countries. These policies were positively reflected in all health, social and educational, and psychological services provided for them. Whoever contemplates the ESCWA report (2020) demonstrates that this report includes all categories of IDs, and this is deemed as an indicator that Jordan and Saudi Arabia have prominent expertise in dealing with these categories during the pandemic.

protect them from the COVID-19 pandemic due to the difference in the nature of centers for the education of each category of disability and the availability of the least restrictive environments. At the regional level, the ESCWA report revealed that this trend is consistent with international trends in dealing with this pandemic. But this report mainly focused on IDs during the pandemic, and this is considered as an impetus to follow this trend worldwide.

#### **CONCLUSION**

Internationally, it seems clear that continuous recommendations of the WHO related to measures and efforts used to combat the spread of COVID-19 worldwide contributed to enhancing the prophylactic measures in all countries. It is noticed that measures used to combat the pandemic in different places in this world have been taken governmentally and institutionally. However, these measures may be different in the nature, continuity, severity, or strictness of implementation and viability. IDs may not receive the same efforts and measures to

#### **ACKNOWLEDGEMENT**

The authors would like to thank the ESCWA in Lebanon to issue this report.

The research team benefited from the data which contained in this report.

## **DISCLOSURE STATEMENT**

No potential conflict of interest was reported by the authors.

FUNDING: None.

## **REFERENCES**

- Abdelfattah, F., Abu-Hilal, M., Dodeen, H., Alaedein, J., Al Bahrani, M., & Atoum, A. (2021). The psychological effects of the Corona pandemic (Covid-19) on the Arab citizen and his responses to it: A cross-sectional study in several Arab countries. *Dirasat: Human and Social Sciences*, 48(1), 44-69.
- Al-Hadabi, B., Al-Zoubi, S., Bakkar, B., Al-Yahyai, F., Al-Gaseem, M., Al-Qaryouti, I. (2021). Effects of an adapted physical education course on attitudes toward sport of Omani individuals with disabilities. *International Journal of Human Movement and Sports Sciences*, 9(2), 255-264. https://doi.org/10.13189/saj.2021.090214
- Al-Hanawi, M. K., Angawi, K., Alshareef, N., Qattan, A., Helmy, H. Z., Abudawood, Y., Alqurashi, M., Kattan, W. M., Kadasah, N. A., Chirwa, G. C., & Alsharqi, O. (2020). Knowledge, Attitude and Practice toward COVID-19 among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Frontiers in Public Health*, 8, 217. https://doi.org/10.3389/fpubh.2020.00217
- Al-Otaibi, M., Al-Zoubi, S., & Bani Abdel Rahman, M. (2015). The role of comprehensive rehabilitation center in empowering individuals with disabilities at Najran, KSA. *The International Interdisciplinary Journal of Education*, 4(10), 119-148.
- Al-Zoubi, S., & Bani Abdel Rahman, M. (2017). Social empowerment of individuals with intellectual disabilities. *European Journal of Education Studies*,3(9), 177-193. http://dx.doi.org/10.46827/ejes.v0i0.988
- Al-Zoubi, S., Al-Shorman, A., & Al Tauqi, M. (2021). Challenges faced by individuals with disabilities participating in Paralympic games. *An-Najah University Journal for Research*, 35(1), 163-184.
- Armitage, R., and L. B. Nellums. (2020). The COVID-19 Response Must Be Disability Inclusive. The Lancet. *Public Health* 5 (5): e257. https://doi.org/10.1016/S2468-2667(20)30076-1

- Broderick, A., & Ferri, D. (2019). International and European disability law and policy: Text, Cases, and materials. Cambridge University Press.

Cahapay B. Michael (2020). How Filipino parents home educate their children with autism during COVID-19 period,

- International Journal of Developmental Disabilities, https://doi.org/10.1080/20473869.2020.1780554
- Cahapay B. Michael (2021). Ushering children with disabilities in the 'new normal' post-COVID-19 period: collective actions in the Philippines. Disability & Society, 36(1), 145-150. https://doi.org/10.1080/09687599.2020.1829557
- Cannella-Malone, H., Fleming, C., Chung, Y., Wheeler, G., Basbagill, A., & Singh, A. (2011). Teaching daily living skills to seven individuals with severe intellectual disabilities: A comparison of video prompting to video modeling.
  - Journal of Positive Behavior Interventions, 13(3), 144-153. https://doi.org/10.1177/1098300710366593
- Doherty, A., Atherton, H., Boland, P., Hastings, R., Hives, L., Hood, K., James-Jenkinson, L., Leavey, R., Randell, E., Reed, J., Taggart, L., Wilson, N., & Chauhan, U. (2020). Barriers and facilitators to primary health care for people with intellectual disabilities and/or autism: an integrative review. BJGP Open, 4(3),1-10. https://doi.org/10.3399/bjgpopen20X101030
- ESCWA. (2020). Survey of government measures taken to prevent people with disabilities from the Novel Coronavirus (Covid-19) and the efforts made to provide them with the necessary information and educational materials in an accessible format. Beirut: United Nations.
- Goggin, G. & Ellis, K. (2020) Disability, communication, and life itself in the COVID-19 pandemic, Health Sociology Review, 29(2), 168-176. https://doi.org/10.1080/14461242.2020.1784020
- Houtrow, A., Harris, D., Molinero, A., Levin-Decanini, T., & Robichaud, C. (2020). Children with disabilities in the United States and the COVID-19 pandemic. Journal of Pediatric Rehabilitation Medicine, 13(3), 415-424. https://doi.org/10.3233/PRM-200769
- Jalali, M. Shahabi, S. Bagheri, K. Lankarani, Kamali, M. & Mojgani, P. (2020) COVID-19 and disabled people: perspectives from Iran. Disability & Society, 35(5), 844-847. https://doi.org/10.1080/09687599.2020.1754165
- Lee, R., & Lee, P. (2014). To evaluate the effects of a simplified hand washing improvement program in schoolchildren with mild intellectual disability: A pilot study. Research in Developmental Disabilities, 35(11), 3014-3025. https://doi.org/10.1016/j.ridd.2014.07.016
- Lim, M., Ramamurthy, M., Aishworiya, R., Rajgor, D., Tran, A., Hiriyur, P., Kunaseelan, S., Jabri, M., & Goh D. (2021). School closure during the coronavirus disease 2019 (COVID-19) pandemic - impact on children's sleep. Sleep Medicine, 78, 108-114. https://doi.org/10.1016/j.sleep.2020.12.025.
- Martin, J. (2020). What is homeschooling? Parents,
  - http://www.parents.com/kids/education/home-schooling/homeschooling-101-what-is homeschooling.
- Masi, A., Mendoza Diaz, A., Tully, L., Azim, S. I., Woolfenden, S., Efron, D., & Eapen, V. (2021). Impact of the COVID-19 pandemic on the well-being of children with neurodevelopmental disabilities and their parents. Journal of Paediatrics and Child Health, 57(5), 631-636. https://doi.org/10.1111/jpc.15285
- Mbazzi, F. B, Nalugya, R. Kawesa, E. Nimusiima, C. King, R. van Hove, G. & Seeley, J. (2021). The impact of COVID-19 measures on children with disabilities and their families in Uganda. Disability & Society, https://doi.org/10.1080/09687599.2020.1867075.
- Meng, Z. (2020). Sign Language was Firsrly Provided by the Press conference on new coronavirus pneumonia held by Information Office of Beijing Municipality" People, February 4. http://bj.people.com.cn/n2/2020/0204/c82840-33764688.html.
- Morris, D., & Jenkins, G. (2018). Preparing physical and occupational therapists to be health promotion practitioners: a call for action. International Journal of Environmental Research and Public Health, 15(2), 392. https://doi.org/10.3390/ijerph15020392
- Murphy, A., Pinkerton, L., Bruckner, E., & Risser, H. (2021). The impact of the novel coronavirus disease 2019 on therapy service delivery for children with disabilities. The Journal of pediatrics, 231, 168-177. https://doi.org/10.1016/j.jpeds.2020.12.060 Proesmans, M. (2016). Respiratory illness in children with disability: a serious problem?. Breathe, 12(4), 97-103.
- https://doi.org/10.1183/20734735.017416
- Qi, F. & Hu, L. (2020). Including people with disability in the COVID-19 outbreak emergency preparedness and response in China. Disability & Society, 35:5, 848-853, https://doi.org/https://doi.org/10.1080/09687599.2020.1752622
- Running Bear, C., Terrill, W. P. A., Frates, A., Peterson, P., & Ulrich, J. (2021). Challenges for rural Native American students with disabilities during COVID-19. Rural Special Education Quarterly, 1-20. https://doi.org/10.1177/8756870520982294.
- United Nations (2020). Policy Brief: A Disability-Inclusive Response to COVID-19. Washington: United Nations.
- Usher, K., Durkin, J., & Bhullar, N. (2020). The COVID-19 pandemic and mental health impacts.
- International Journal of Mental Health Nursing, 29 (3), 315X318. https://doi:10.1111/inm.12726
- Ward, R., Nichols, A., & Freedman, R. (2010). Uncovering health care inequalities among adults with intellectual and developmental disabilities. Health & Social Work, 35(4), 280-290. https://doi.org/10.1093/hsw/35.4.280.
- Wilder-Smith, A., & Freedman, D. (2020). Isolation, quarantine, social distancing and community containment: pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. Journal of Travel Medicine, 27(2),1-4. https://doi.org/10.1093/jtm/taaa020
- Withagen, A., Kappers, A., Vervloed, M., Knoors, H., & Verhoeven, L. (2013). The use of exploratory procedures by blind and sighted adults and children. Attention Perception & Psychophysics, 75, 1451-1464 https://doi.org/10.3758/s13414-013-0479-0
- World Health Organization (2020). Coronavirus. Geneva, Switzerland: World Health Organization. https://www.who.int/health-topics/coronavirus#tab=tab\_1.
- World Health Organization (2020). Situation Reports on COVID-19 Outbreak. Geneva, Switzerland: World Health Organization, Accessed October 10.