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## NAVIGATING THE COVID-19 PANDEMIC'S IMPACT ON CHILDREN WITH DISABILITIES AND THEIR FAMILIES IN AZERBAIJAN

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### Abstract

This study was designed to identify major health concerns related to special children during Covid-19 lockdown, including school closures, service reduction, healthcare access restrictions, and unique challenges associated with caring for children with disabilities that significantly impact their daily lives and well-being. National questionnaire was designed by researchers and disseminated in Azerbaijan from December 25, 2023 to March 05, 2024, physically. This cross-sectional study was conducted in the Western, Eastern, as well as Northeast parts of Azerbaijan, a total of 108 parents completed a clinical and demographic survey. Data on children's care, rehabilitation, education, and family organization was collected. The first 108 eligible surveys were analyzed. This study found that the COVID-19 lockdown has increased physical, social, psychological, and financial challenges for parents and families of special needs children. Child health and access to basic facilities and rehabilitation services are harmed by this pandemic.

**Keywords:** COVID-19, Children with disabilities, Pandemic lockdown, Survey analysis, Azerbaijan.

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## Azerbaycan'da Covid-19 Salgınının Engelli Çocuklar Ve Aileleri Üzerindeki Etkisini Yönetmek

### Öz

Bu çalışma, COVID-19 karantinası sırasında engelli çocukların karşılaştığı temel sağlık sorunlarını belirlemek üzere tasarlanmıştır. Bu sorunlar arasında okulların kapatılması, hizmet kesintileri, sağlık hizmetlerine erişimdeki kısıtlamalar ve engelli çocukların bakımıyla ilişkili benzersiz zorluklar yer almaktadır. Bu zorluklar, çocukların günlük yaşamlarını ve refahlarını önemli ölçüde etkilemektedir. Araştırmacılar tarafından anket geliştirilmiş ve 25 Aralık 2023 ile 5 Mart 2024 tarihleri arasında Azerbaycan'da dağıtılmıştır. Bu kesitsel çalışma, Azerbaycan'ın batı, doğu ve kuzeydoğu bölgelerinde yürütülmüştür. Klinik ve demografik bir ankete toplam 108 ebeveyn katılmıştır. Çocuk bakımı, rehabilitasyon, eğitim ve aile organizasyonu hakkında veriler toplanmıştır. Uygun olan ilk 108 anket analiz edilmiştir. Bu çalışma, COVID-19 karantinasının engelli çocukların ebeveynleri ve aileleri için artan fiziksel, sosyal, psikolojik ve finansal zorluklara yol açtığını ortaya koymuştur. Bu pandemi, çocukların sağlığını ve temel altyapı ve rehabilitasyon hizmetlerine erişimini olumsuz etkilemektedir.

**Anahtar Kelimeler:** COVID-19, engelli çocuklar, pandemiyle ilgili karantina, anket analizi, Azerbaycan.

### 1. Introduction

The COVID-19 pandemic has posed unparalleled challenges globally affected individuals and communities in diverse ways. Families raising children with disabilities often navigate a distinct set of challenges amplified by school closures, service reduction, limitations in healthcare access and unique challenges associated with caring for children with disabilities that significantly affect their day-to-day existence and overall well-being. The challenges faced by these families are intricate and multifaceted, spanning emotional, societal dimensions and financial strains (Gok et al., 2021).

Globally, including in Azerbaijan, it is imperative to implement comprehensive measures to protect the safety, well-being, and future of children during the COVID-19 pandemic. Governmental organizations, along with international and national non-governmental organizations, prioritize various aspects of child health and nutrition, early childhood education, safeguarding children from violence and psychological distress caused by prolonged isolation at home, and

addressing the economic consequences faced by vulnerable groups within communities. According to UNICEF (2020), over 1 million individuals in the country have already been reached through digital and direct communication during the Covid-19 pandemic, providing them with simple preventive measures and particularly guidance on hand washing.

The national authorities have enacted various containment measures with a focus on individuals' well-being of individuals in order to stop the spread of COVID-19. The Cabinet of Ministers of the Republic of Azerbaijan approved an Action Plan on 30 January 2020 to combat the spread of the novel coronavirus within the country. The Task Force was established by the Government on 27 February 2020, under the Cabinet of Ministers. It is composed of high-ranking officials from relevant authorities, with the purpose of coordinating the Government's actions in response to the country's coronavirus outbreak.

On March 19, 2020, the President of Azerbaijan issued an Executive Order aimed at safeguarding public health in the country and enhancing efforts to combat the spread of the coronavirus. The establishment of the Special Coronavirus Response Fund was mandated by the Decree in order to provide financial aid for the country's response efforts. The Fund received an allocation of approximately \$12 million from the President's Contingency Fund.

The measures that have been taken to protect Azerbaijan from the pandemic have posed a challenging endeavor. Various strategies employed to address the health crisis in the region have resulted in different negative outcomes. These challenges encompass dealing with the overwhelming impact of the pandemic itself and confronting its profound psychological effects on individuals. Moreover, the implemented preventive measures have also caused a noticeable psychological burden on the population. The State Committee for Family, Women and Children Affairs of the Republic of Azerbaijan (2020) conducted a survey to examine the impact of social isolation measures and the special quarantine regime on family dynamics during the COVID-19 pandemic. The survey results reaffirmed the

interconnectedness between environmental and social situations and their impact on families.

Children with disabilities and their parents have experienced significant adverse effects as a result of the pandemic. The pandemic has primarily resulted in challenges for this vulnerable group in terms of their socialization and social integration. The absence of activities in day care centers and community-based rehabilitation centers has resulted in the disappearance of atypical social communication and self-service skills. These centers have transitioned to online platforms, offering inclusive education classes.

This study aimed to identify significant health issues affecting special children during the Covid-19 lockdown, including school closures, reduced services, restricted healthcare access, and unique challenges in caring for children with disabilities that significantly affect their daily lives and well-being. Conducted in the Western, Eastern, as well as Northeast parts of Azerbaijan, this cross-sectional study delves into the experiences of families caring for children with disabilities across different regions of the country. As the pandemic impacts continue, we must address these challenges to ensure equitable access to care and resources for all children, especially those with special needs.

## **1. Literature Review**

### **1.1. Educational Disruptions and Impact on Socialization and Emotional Well-being**

Families often encounter significant hurdles with the educational system. The disruption caused by the COVID-19 outbreak have posed distinct challenges to the education of children with disabilities, reported in Azerbaijan. The closure of schools, shift to remote learning and the absence of in-person support services during pandemic have disproportionately affected children with disabilities have impacted the structured learning environment crucial for these students.

Children with disabilities often rely on customized education plans tailored to their unique needs (Dhiman et al., 2020; Neece et al., 2020). A significant number

of these children depend on in-person education, adaptive teaching methods. Specialized material and personalized assistance, which became challenging to replicate in remote learning settings (Verdiyeva et al., 2022). The alteration to remote learning has challenged the effective implementations of these plans as individualized assistance and support services become harder to deliver from a distance. Educational challenges can contribute to heightened stress, anxiety, or depression in children with disabilities. The pressure to keep up with academic demands while facing additional obstacles may negatively impact their emotional well-being. In some educational settings, children with disabilities may not have sufficient opportunities for inclusive activities. This exclusion can hinder the development of positive relationships with peers and limit their overall social development (Smitha et al., 2021).

The lack of hands-on experiences and face-to-face interaction further hinder their ability to fully engage with the curriculum, potentially impact their comprehension and retention of educational content. In Azerbaijan, the impact of change in the educational landscapes has introduced specific challenges for families having children with disabilities (Ren et al., 2020). Parents and caregivers of children with disabilities have taken on increased responsibilities like supervising online classes, facilitating specialized learning plans and providing additional support and therapeutic needs. The virtual learning environment may not effectively address the diverse learning needs posing difficulties for parents to adapt the curriculum to meet the specific requirements of their child.

This abrupt shift has not only hindered their academic progress but also effected their socialization and emotional well-being. The shift to online plate forms has diminished the opportunities for children to engage in meaningful peer interactions that contribute to social development of children. Collaborative activities, which are instrumental in promoting teamwork and cooperation have also become limited (Toseeb et al., 2020; Asbury et al., 2021). The emotional support traditionally provided by teachers and support staff in person has undergone a

significant shift. This lack of in-person socialization contributes to feeling of isolation among children with disabilities which become more challenging for families with children with disabilities. Parents face additional responsibilities of creating a conducive environment for emotional well-being and social engagement (Ismayilzade et al., 2021).

Balancing these demands while addressing the unique needs of children with disabilities presents a considerable challenge for many parents residing in Azerbaijan. It has caused significant stress and disruption in the lives of children who thrive on structure and routine in normal circumstances. Addressing the educational gaps faced by children with disabilities during COVID-19 outbreak require innovative solutions (Chen et al., 2020). Recognizing the challenges posed by diminished socialization and emotional well-being. Collaborative efforts between educators, parents, policymakers and support networks are essential to identify and implement innovative solutions effectively.

Due to physical differences, children with disabilities may experience isolation from their peers. This can result in limited social interactions and hinder the development of essential social skills. Children with disabilities may be more vulnerable to bullying and stigmatization, which can negatively affect their self-esteem and emotional health (Mikayilova et al., 2023). The lack of understanding or empathy from peers can contribute to feelings of exclusion. Children with disabilities may be more vulnerable to bullying and stigmatization, which can negatively affect their self-esteem and emotional health. The lack of understanding or empathy from peers can contribute to feelings of exclusion (Hallek et al., 2023). These three countries are relatively small and underdeveloped in terms of their geographical size and population, geopolitical importance, market size and aggregate demand, production, investment, export, and technological potential. According to many non-economic indicators (political stability, democratization, liberalization and institutionalization of society, law, infrastructure development, safety, security, investment, compliance with environmental and social standards, efficiency of the

legal system, human rights respect, etc.), as well as economic indicators (purchasing power, rate of economic growth, foreign trade balance, current account deficit, public debt, inflation rate, unemployment rate, public expenditure, investments, etc.), they are characterized by a long-term transitional crisis of structural type.

## **1.2. Financial Strain and Healthcare Challenges**

According to survey reports observed in Azerbaijan, the financial burdens associated with raising children with disabilities often pose overwhelming burdens for numerous families. Children with disabilities may require frequent medical visits, therapies, medications, and specialized equipment. The associated costs can place a substantial financial burden on families, especially if these services are not fully covered by insurance (Korenman & Hyson, 2023; Toseeb et al., 2020).

Rapidly accumulating expensive related to educational support services, medical care expenses, and therapy sessions, specialized equipment significantly strains the family's financial resources. Coping with these financial demands become especially challenging due to the unique needs and requirements associated with raising children with disabilities. In some cases, parents may need to reduce working hours or leave the workforce altogether to devote more time to caring for the child with disabilities, further intensifying layer of stress as caregivers (Verdiyeva et al., 2022). Many families rely on schools and specialized services for therapies, interventions and educational support.

Accessing quality education for children with disabilities often involves additional expenses for specialized programs, assistive technologies, and support services. These costs can strain a family's budget (Chen et al., 2020). Parents may face challenges in maintaining employment due to the need for caregiving and attending to their child's medical or educational needs. This can result in a loss of income, making it difficult to cover daily living expenses.

The sudden discontinuation of these services has forced families to seek alternative and often costly solutions to fill the gaps. Children with disabilities have heightened healthcare needs. Access to medical services has become challenging.

Families face increased costs for telehealth consultations, specialized apparatus and medications.

Financial strain is further heightened when insurance coverage is sufficient, or families face unexpected medical challenges related to COVID-19. The shift to remote learning has introduced additional costs related to technology and adapted educational materials. Families need to invest in devices, software and internet connectivity to facilitate their children's online education (Khatri et al., 2021) Minors with disabilities may require additional specialized tools or assistance, adding to the financial burden. Families having children with disabilities rely on routine medical care, including therapies, check- up, and specialist appointments.

The stress of managing financial strain while caring for a child with disabilities can take a toll on parents' emotional and mental well-being. Access to mental health support may be crucial but can also incur additional costs. The pandemic has disrupted these medical healthcare aids, leading to postponed and cancelled appointments that negatively impact the overall health management of children with disabilities.

Children with disabilities are more susceptible to infections, including COVID-19 which place additional stress on families, necessitating stringent preventive measures and making decisions about exposure and healthcare access more challenging (Lunetti et al., 2023). The shift towards telehealth services, while a valuable alternative, poses challenges for families having children with disabilities, caregivers often bear the emotional burden of managing their child's health during the pandemic. Pandemic associated disruption also affects the mental health of the children with disabilities requiring additional support and interventions that contribute to heightened stress and anxiety among children and caregivers. Navigating these challenges requires resilience, adaptability, and a collaborative approach between families' healthcare providers and support networks among Azerbaijan's people (Houtrow et al., 2020).

## **2. Methodology**

### **2.1. Conduct Research and Data Collection**

Conduct research and data collection serve as useful tools to focus attention on the experiences of children with disabilities during the pandemic. By systematically gathering information on their challenges, struggles, and successes, researchers can draw attention to the frequently ignored aspects of their lives. This cross-sectional study was designed to identify and analyze the major health and well-being concerns of children with disabilities in Azerbaijan during the COVID-19 lockdown.

A national survey was developed by the researchers to collect both clinical and demographic data related to the care, education, rehabilitation, and family organization of children with disabilities. The questionnaire was disseminated physically from December 25, 2023, to March 5, 2024. Researchers visited the homes of families with children with disabilities in three broad geographic areas: Western, Eastern, and Northeastern Azerbaijan. The decision to conduct in-person surveys was made to ensure inclusivity and accessibility, especially for families who might lack internet access or digital literacy. All participants provided verbal consent, and anonymity was maintained throughout the research process.

Collaborating with researchers, educational institutions, and relevant organizations is essential to conduct in-depth studies on the impact of the pandemic on children with disabilities. This collaboration aims to gather both quantitative and qualitative data, focusing on the challenges faced, changes in routines, disruptions in services, and the overall well-being of these children and their families. Involving parents, educators, healthcare professionals, and advocacy groups for children with disabilities is a key aspect of the research process. To achieve this, focus group discussions, surveys, and interviews should be conducted. These methods aim to understand the experiences of the individuals involved, providing valuable insights into the specific needs and challenges faced by children with disabilities during the pandemic. By understanding the long-term implications of the pandemic on children

with disabilities, supporters can effectively campaign for the implementation of sustainable and adaptable services. This involves anticipating evolving needs and potential challenges as society continues to navigate the aftermath of the pandemic.

Research and data collection also play a pivotal role in promoting different sorts of services for children with disabilities, both in the present and the future. Through strong research efforts, advocates can gather convincing evidence that throws light on the specific challenges faced by this vulnerable population during the pandemic. Research allows advocates to present a clear and evidence-based picture of the immediate needs of children with disabilities. This includes factors such as disturbed educational services, limited access to essential therapies, and increased nurturing responsibilities. Research findings serve as a powerful tool to influence policy decisions at various levels of government. Policymakers are more likely to respond to well-documented data that highlights the unique requirements of children with disabilities, ensuring that their voices are heard in the decision-making processes (Suaifan et al., 2022).

## **2.2. Population Description**

The survey included both closed- and open-ended questions addressing themes such as access to education, availability of healthcare and rehabilitation services, psychological impacts, and changes in family routines. Data was analyzed using descriptive statistical methods in IBM SPSS Statistics Software.

Researchers examined the survey results after gathering all data from the respondents. In whole, 1998 was the mean value of the children in the regions of Azerbaijan obtained from SPSS software that were investigated, from which 108 respondents that were valid. The survey was wrapped up physically from Western, Eastern, as well as Northeast parts of Azerbaijan to determine the effect of Covid-19 on their mental health and missing data was 1890 (Table 1).

**Table 1.** Population Description and Gender of Respondents to the Questionnaires for the Survey

Variables				
Gender	Frequency	Percent (of total, N=1998)	Valid Percent (of N = 108)	Cumulative Valid Percent
F	37	1.9%	34.3%	34.3%
M	54	2.7%	50.0%	84.3%
N	17	0.9%	15.7%	100.0%
Total (valid)	108	5.4%	100.0%	
Missing	1890	94.6%	-	-
Total (all)	1998	100%	-	-

Source: *Own Compilation*

In a whole, 5 different regions were analyzed, according to which Ganja region was more represented. The results revealed that the questionnaires completed which were valid had percentage of 108 having 34.3% females (F), 50.0% males (M), and 15.7% of genders (N) were not mentioned (Table 1).

### **2.3. Insights into Public Discourse and Design of Interventions, Identifying Support Mechanisms**

Research is essential in informing the design of specific actions taken to the needs of children with disabilities and their families. Exploring into complex challenges faced by children with disabilities allows for development of fine-tuned and effective strategies. Using research data can enhance the voice of children with disabilities. This may contribute a significant role in awareness and sharing their concerns in public. By integrating their experiences into public conversations, decision-makers gain a more comprehensive understanding of the diverse needs that require consideration in response planning. The interlaced insights act as a guide for decision-makers, influencing their considerations during the decision-making

processes. This ensures that policies, interventions, and responses are not only informed by general data but also by the specific circumstances and challenges faced by children with disabilities.

Research helps in identifying and recommending family-centered support mechanisms. Recognizing the integral role of families, interventions can be designed to support not only the child but the entire family unit. Design surveys and questionnaires' that are inclusive and accessible is crucial to gather meaningful input from a diverse audience.

Community engagement can also play an important role in addressing the challenges faced by families of children with disabilities during the COVID-19 pandemic. It can provide insights into the most effective and feasible interventions based on their research and data collection. Communities can collaboratively work to fill the gaps caused by pandemic in the overall well-being of children with disabilities (Dhiman et al., 2020).

Materials and Methods should be described with sufficient details to allow others to replicate and build on published results. Please note that publication of your manuscript implicates that you must make all materials, data, computer code, and protocols associated with the publication available to readers. Please disclose at the submission stage any restrictions on the availability of materials or information. New methods and protocols should be described in detail while well-established methods can be briefly described and appropriately cited.

### **3. Results**

#### **3.1. Prosperity of Children with Disabilities**

A dismissive effect of lockdown during the pandemic of Covid-19 reported that many children with disabilities remained at home. The regions that were examined includes, Baku, Ganja, Gazakh, Guba, and Khachmaz from Azerbaijan, having various frequencies are percentages of 14.8%, 26.9%, 18.5%, 18.5%, and 21.3% respectively. Ganja region showed highest frequency among the other regions having 26.9% of the total valid results. The children in this region mostly had

physical disabilities, few of them had a down syndrome, and some had both physical and intellectual disabilities, while some had impaired visually, aurally, and had speech impairment along with the intellectual and physical disabilities (Table 2).

**Table 2.** Regional Distribution of Children with Disabilities During Covid-19 Pandemic

Region	Frequency	Percent (of total, N=1998)	Valid Percent (of N = 108)	Cumulative Valid Percent
Baku	16	0.8%	14.8%	14.8%
Ganja	29	1.5%	26.9%	41.7%
Gazakh	20	1.0%	18.5%	60.2%
Guba	20	1.0%	18.5%	78.7%
Khachmaz	23	1.2%	21.3%	100.0%
Total (valid)	108	5.4%	100.0%	
Missing	1890	94.6%	-	-
Total (all)	1998	100%	-	-

Source: *Own Compilation*

In regions other than Ganja, there were majority of child with illness, physical disabilities, intellectual disabilities, and some had disorders that were produced due to mutation in gene or any chromosomal aberrations. According to ages of children, the children with the age of 11 had highest frequency with 0.7% and their valid percentage was 12.0 (Table 3).

**Table 3.** Age of Child and Their Valid Percentage During Whole Phase of Covid-19

Age (child)					
		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	0.0	1	0.1	.9	.9
	5.0	1	0.1	.9	1.9
	6.0	3	0.2	2.8	4.6

7.0	2	0.1	1.9	6.5
8.0	4	0.2	3.7	10.2
9.0	5	0.3	4.6	14.8
10.0	7	0.4	6.5	21.3
11.0	13	0.7	12.0	33.3
12.0	8	0.4	7.4	40.7
13.0	10	0.5	9.3	50.0
14.0	11	0.6	10.2	60.2
15.0	12	0.6	11.1	71.3
16.0	10	0.5	9.3	80.6
17.0	9	0.5	8.3	88.9
18.0	4	0.2	3.7	92.6
19.0	1	0.1	.9	93.5
20.0	1	0.1	.9	94.4
21.0	1	0.1	.9	95.4
22.0	1	0.1	.9	96.3
23.0	1	0.1	.9	97.2
25.0	1	0.1	.9	98.1
30.0	2	0.1	1.9	100.0
Total	108	5.4	100.0	
Missing	System	1890	94.6	
Total		1998	100.0	

Source: *Own Compilation*

### 3.2. Rehabilitation and Remedial Follow-up

During the lockdown, 17% out of 108 respondents were worrying about the physiological health, 15.7% to 11% were being able to deal with unreliability or

uncertainty of mental health, 14.8% failed in the balancing of mindful learning in a disturbed noisy environment, about 40% to 13% were afraid of infections that can be caused by Covid-19, 8.3% to 4% children felt difficulty in disturbing physical activities.

Moreover, many children showed changes in their behavior and felt difficulties in sleeping. More than half of the respondent revealed that their children stopped performing physical activities and playing. During this lockdown, different therapies like speech therapy, occupational therapy, and physiotherapy were utilized by the parents.

Along with above explained questionnaires 8.3% to 7.4% of the children felt anxious because they were unable to play outside during lockdown, 23% to 12% were restricted to the home which deprived their school activities.

### **3.3. Parental and Caretaker's Responsibility During the Lockdown**

Overall 1890 valid results were obtained and 108 respondents were studied. The major concern of the parents was rehabilitation. Other concerns were related to risk of infections that were fear for children during Covid-19 pandemic. 43.5% child showed low energy during different activities, 76.8% caretakers started increasing their responsibilities during the lockdown.

The suggestions obtained from respondent were related to proper schooling, human resources recommendation and other physiological support to the children to develop a healthy behavior for them.

## **4. Discussion**

An innovative, nationwide, interdisciplinary, and family-centered effort, the survey was designed to document the experiences of children with disabilities and their families with the Covid-19 epidemic. According to the responses, it was revealed that families were having a lot of problems, and a lot of their requirements were not being satisfied because rehabilitation and medical follow-up had stopped. From the start of the lockdown, parents were solely responsible for providing all of their children's care, rehabilitation, education, etc. at home.

#### **4.1. Health Related Risks for Children and Their Families**

Similar to prior research on children without disabilities, this poll focused on the detrimental impacts of the lockdown on the children's mental and social health (behavior, morale, social contact, and physical exercise) (Colizzi et al., 2020). The public has experienced psychological impacts of the lockdown, such as disorientation, rage, and post-traumatic stress symptoms, which are connected to how long the lockdown lasted. Children who are physically disabled are more likely to experience mental health issues, which may worsen during the pandemic. In addition to having a negative impact on their spirits, a deficiency in social connection may cause their communication skills to deteriorate. Additionally, the onset or exacerbation of behavioral problems may have a negative impact on their welfare and heighten the sense of powerlessness experienced by parents (Supratiwi et al., 2021). Before the regression analysis the descriptive statistics was performed. From the obtained results, the relevant results were singled out in the Table 1.

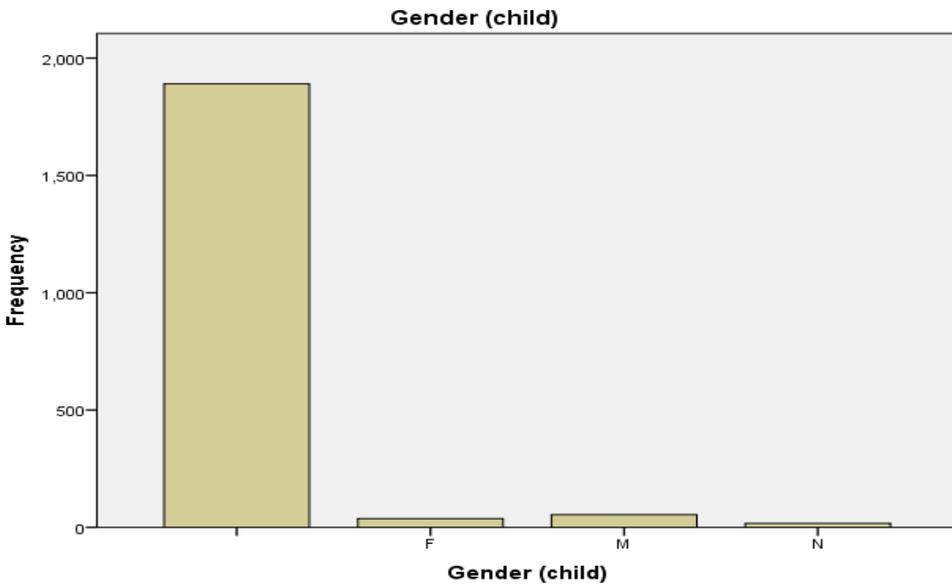
Moreover, parent of disabled children also faced difficulties and suffered from great level of stress, depression and anxiety because of the increasing responsibilities for children during the pandemic. Our results indicated the most of the children were physically disabled, few had Down syndrome and other had intellectual disabilities. Furthermore, in the recent studies, the results are evident of the negative impact on the children's behavior due to the Covid-19 pandemic because they were restricted to their homes.

#### **4.2. Impact of Covid-19 Pandemic on Different Aged Disabled Children**

A total of 1890 results were valid, out of which 108 responses were further examined. These results showed there were majority of male disabled children having highest frequency between the genders which was 54 Hz (Graph 1). Therefore, the Covid-19 pandemic majorly effected the male genders then females and other who had not mentioned their genders. The existence of differences is expected because in the previous process of transition various economic, political, institutional and social changes have been realized. There are also other factors

which have not been examined in this paper. Still, presented results clearly show similarity of models of influence and functional dependency, on the basis of common factors of influence research.

**Graph 1.** Gender Frequency



The results of this survey, which was conducted during the lockdown, about medical treatment and rehabilitation, child welfare, and parental concerns, need to be taken into account for the regular management of certain children (such as those who live in remote areas) as well as the actual health situation and social distancing measures. In order to prevent the negative consequences of the lockdown on children and their families, we now require creative care systems that can be utilized for both routine medical care and pandemic situations. These systems should also adhere to the principles of the child's rehabilitation.

## **5. Limitations**

The convenience sample which was based on the disabled children that we could contact during the Covid-19 epidemic may have certain limitations which are as followed, the convenience sample is frequently regarded as the gold standard since probability samples are expensive and using them during the COVID-19 pandemic

was challenging and impractical. The most difficult challenge during this research was that, it was really hard to reach parents of children with disabilities. They did not want to participate and answer questions. It took time to persuade them. As well as most of them do not use e-mails and therefore we could not send the questionnaire via e-mails. Also taking into account that conducting survey via social media is not credible as we don't know who answers the questions (Blank, 2017). Hence, to overcome these limitations associated with this survey we've collected data physically to ensure reliability in this research that these respondents were actually their respondents. Notwithstanding the fact that, health care systems and the measures that were utilized the tackle with this pandemic contradict among countries, some of the statistics from the regions of Azerbaijan survey could be helpful for further investigation and studies in various other countries.

## **6. Future Perspectives and Recommendations**

### **6.1. Development of Programs for Supporting Individuals with Disabilities**

The development of programs for supporting individuals with disabilities is crucial for promoting inclusivity, providing equal opportunities, and enhancing the overall well-being of this population (Thakur et al., 2021). The evolution of disability support programs represents a dynamic trajectory in responding to the diverse needs of individuals with disabilities (Navas et al., 2021).

Over the years, these programs have shifted from rudimentary forms of assistance to comprehensive, multidimensional frameworks. Early initiatives often focused on charity and medical models, viewing disabilities as deficits to be managed. However, as societal perspectives evolved, so did the nature of support programs. The advent of the social model of disability emphasized removing societal barriers and promoting inclusivity. Modern programs integrate education, employment, and healthcare components, recognizing the importance of holistic support. This evolution underscores a commitment to empowering individuals with

disabilities, fostering independence, and promoting their active participation in society.

Data serves as a metric for measuring progress over time. Advocates can track improvements resulting from their efforts and use this information to demonstrate the impact of interventions and the ongoing need for support. For this purpose, many initiatives can be taken. Conduct a thorough needs assessment to understand the specific challenges and requirements of individuals with disabilities in the target community. Gather input from individuals with disabilities, their families, caregivers, and relevant stakeholders to identify priority areas. Ensure that programs align with local and national disability laws and regulations. Incorporate principles of accessibility and non-discrimination in program design and implementation (Jeste et al., 2020).

Develop a range of services that address the diverse needs of individuals with disabilities, including educational support, vocational training, healthcare services, and social inclusion programs. Emphasize early intervention programs to identify and address disabilities in the early stages, promoting better outcomes for individuals and reducing long-term challenges. Establish educational programs that cater to various learning styles and abilities (Miller & van Heumen, 2021). Provide training for educators, caregivers, and community members to create an inclusive and supportive environment.

Ensure that physical infrastructure, public spaces, and communication materials are accessible to individuals with diverse disabilities, including those with mobility, sensory, or cognitive impairments. Ensure that physical infrastructure, public spaces, and communication materials are accessible to individuals with diverse disabilities, including those with mobility, sensory impairments (Miller & van Heumen, 2021). Collaborate with government agencies, non-profit organizations, healthcare providers, and educational institutions to leverage resources and expertise for a comprehensive approach.

Engage in advocacy efforts to influence policies that support the rights and inclusion of individuals with disabilities at local, regional, and national levels (Drożdżal et al., 2021; Suaifan et al., 2022).

## **6.2. Key Research Contributions and Turning Points in Disability Studies**

Landmark studies and milestones in disability research have played a pivotal role in shaping our understanding of the challenges faced by individuals with disabilities. These studies mark critical junctures where scholars and advocates have illuminated the complexities of disability experiences. Milestones often coincide with legislative changes, such as the passage of the Americans with Disabilities Act (ADA) in 1990, which catalyzed a paradigm shift toward recognizing and accommodating the rights of individuals with disabilities. These key moments not only influenced policy but also inspired further research, paving the way for evidence-based practices and interventions that continue to enhance the lives of individuals with disabilities (Mills et al., 2020).

1. **Healthcare Access: Overcoming Historical Barriers:** The historical narrative of healthcare access for individuals with disabilities has been marked by persistent challenges, reflecting societal prejudices and inadequate infrastructure. In the earlier stages, individuals with disabilities encountered substantial barriers, including physical inaccessibility, stigmatization, and limited understanding of their unique healthcare needs. However, as awareness grew and advocacy efforts intensified, a transformative shift occurred. Moreover, landmark studies have shed light on healthcare disparities, influencing policies that prioritize equitable access. Despite progress, contemporary challenges persist, urging a continued commitment to innovation and the implementation of technology-driven solutions to enhance healthcare access for individuals with disabilities (Croft & Fraser, 2022).

2. **Technological Innovations: Revolutionizing Healthcare Access:** Within the broader landscape of healthcare access, technological innovations stand out as a driving force in overcoming barriers. The integration of assistive technologies,

telehealth solutions, and digital health platforms has revolutionized how individuals with disabilities receive medical care. Telehealth, in particular, has emerged as a powerful tool, providing remote consultations, monitoring, and support. This technological revolution not only addresses physical accessibility challenges but also promotes inclusivity by ensuring that individuals with disabilities can access healthcare services regardless of geographical constraints. As we navigate the intersection of healthcare and technology, ongoing research and development will play a crucial role in shaping the future of inclusive and accessible healthcare for individuals with disabilities (Drożdżal et al., 2021).

3. Policy and legal frameworks across time: The policy and legal frameworks surrounding the support of children with disabilities during the COVID-19 pandemic have undergone dynamic shifts over time. Governments worldwide have adapted and implemented measures to address the unique challenges faced by this vulnerable population. These frameworks encompass a spectrum of issues, including access to education, healthcare, and social services (Toquero, 2020).

The pandemic has highlighted the importance of inclusive policies that cater to the diverse needs of children with disabilities, ensuring they receive equitable support. Legal provisions have been adjusted to facilitate remote learning, telehealth services, and accessible information dissemination, recognizing the significance of safeguarding the well-being and educational rights of these children in the face of unprecedented global challenges.

The legal response to supporting children with disabilities during the COVID-19 pandemic has undergone significant transformations. Governments globally have adapted and refined existing frameworks to meet the unique challenges faced by this vulnerable demographic. These adjustments reflect a commitment to ensuring that legal provisions are responsive to the evolving needs of children with disabilities.

The pandemic has underscored the importance of healthcare accessibility for children with disabilities (Armitage & Nellums, 2020). Telehealth initiatives have

become pivotal in ensuring that these children receive the necessary medical attention and therapeutic services. Legal frameworks have adapted to accommodate remote healthcare provisions, recognizing the significance of maintaining continuity in healthcare support during times of crisis.

A critical element of the policy response involves disseminating information in an accessible manner. Legal frameworks have been adjusted to mandate the provision of clear and understandable information about COVID-19 and related measures, ensuring that caregivers and individuals with disabilities are well-informed. This focus on awareness aligns with the broader goal of empowering communities to navigate the pandemic effectively (Roberts et al., 2021).

### **6.3. International Studies and Cross-Cultural Insights**

In our interconnected world, it is essential to delve into the rich tapestry of human interaction across diverse cultures. Under the overarching theme of "Understanding Different Cultures Around the World," two significant aspects come to the forefront: International Studies and Cross-Cultural Insights.

International Studies encompass the exploration of global dynamics, fostering an appreciation for the interconnectedness of nations and peoples (Afifah, 2021). It involves studying political, economic, and social systems on an international scale, emphasizing the importance of diplomacy, cooperation, and shared responsibilities.

On the other hand, Cross-Cultural Insights delve into the nuances of how individuals from various cultural backgrounds interact. This field examines the ways in which beliefs, customs, and communication styles shape interpersonal relationships (Toseeb, Asbury, Code, Fox, & Deniz, 2020). By recognizing and respecting these differences, we can bridge gaps, foster mutual understanding, and build a more inclusive global community.

Together, International Studies and Cross-Cultural Insights form a comprehensive approach to navigating the complexities of our diverse world, promoting harmony and collaboration across borders. Furthermore, the synthesis of

these two key components emphasizes the need for interdisciplinary approaches to address the challenges and opportunities presented by our globalized world (Wong et al., 2021).

Scholars and practitioners alike must consider the interconnected nature of international relations and the impact of cultural factors in crafting effective strategies and policies (Couper-Kenney & Riddell, 2021). This review encourages future research to bridge disciplinary gaps and explore innovative methodologies that integrate both international studies and cross-cultural perspectives.

## **7. Conclusion**

In the end, this designed study has elaborated that physical, social, psychological and financial challenges facing by parents and family of special children with disabilities have raised burden during the COVID-19 lockdown. This pandemic implements a negative effect on the child's health along with lack of access to basic facilities and rehabilitation services. Necessary factors are in real need to be consider to develop strategies for improvement of rehabilitative methods and health plans to promote better care for caretakers and their special children with different disabilities during restrictions of lockdown.

## **Authors' Note**

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## **8. References**

Afifah, Q. A. (2021). Analysis of the Impact of the Covid-19 Pandemic on Family Harmony: Case Studies on Family with and without People with Special Needs. *Indonesian Journal of Community and Special Needs Education*, 1(2), 87–92. <https://doi.org/10.17509/ijcsne.v1i2.33817>

- Armitage, R., & Nellums, L. B. (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](https://doi.org/10.1016/s2468-2667(20)30076-1)
- Asbury, K., Fox, L., Deniz, E., Code, A., & Toseeb, U. (2021). How is COVID-19 Affecting the Mental Health of Children with Special Educational Needs and Disabilities and Their Families? *Journal of Autism and Developmental Disorders*, 51(5), 1772–1780. <https://doi.org/10.1007/s10803-020-04577-2>
- Blank, G. (2017). The digital divide among Twitter users and its implications for social research. *Social Science Computer Review*, 35(6), 679-697. <https://doi.org/10.1177/0894439316671698>
- Chen, S.-Q., Chen, S.-D., Li, X.-K., & Ren, J. (2020). Mental Health of Parents of Special Needs Children in China during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 17(24), 9519. <https://doi.org/10.3390/ijerph17249519>
- Colizzi, M., Sironi, E., Antonini, F., Ciceri, M. L., Bovo, C., & Zoccante, L. (2020). Psychosocial and Behavioral Impact of COVID-19 in Autism Spectrum Disorder: An Online Parent Survey. *Brain Sciences*, 10(6), 341. <https://doi.org/10.3390/brainsci10060341>
- Couper-Kenney, F., & Riddell, S. (2021). The impact of COVID-19 on children with additional support needs and disabilities in Scotland. *European Journal of Special Needs Education*, 36(1), 20–34. <https://doi.org/10.1080/08856257.2021.1872844>
- Croft, S., & Fraser, S. (2022). A Scoping Review of Barriers and Facilitators Affecting the Lives of People with Disabilities During COVID-19. *Frontiers in Rehabilitation Sciences*, 2, 784450. <https://doi.org/10.3389/fresc.2021.784450>
- Dhiman, S., Sahu, P. K., Reed, W. R., Ganesh, G. S., Goyal, R. K., & Jain, S. (2020). Impact of COVID-19 outbreak on mental health and perceived strain among caregivers tending children with special needs. *Research in Developmental Disabilities*, 107, 103790. <https://doi.org/10.1016/j.ridd.2020.103790>
- Drożdżal, S., Rosik, J., Lechowicz, K., Machaj, F., Szostak, B., Przybyciński, J., Lorzadeh, S., Kotfis, K., Ghavami, S., & Łos, M. J. (2021). An update on drugs with therapeutic potential for SARS-CoV-2 (COVID-19) treatment. *Drug Resistance Updates*, 59, 100794. <https://doi.org/10.1016/j.drug.2021.100794>
- Gok, M., Cetinkaya, H., Kandemir, T., Karahan, E., Tuncer, İ. B., Bukrek, C., & Sahin, G. (2021). Chronic kidney disease predicts poor outcomes of COVID-19 patients. *International Urology and Nephrology*, 53(9), 1891–1898. <https://doi.org/10.1007/s11255-020-02758-7>
- Hallek, M., Adorjan, K., Behrends, U., Ertl, G., Suttorp, N., & Lehmann, C. (2023). Post-COVID syndrome. *Deutsches Ärzteblatt International*, 120(4), 48-55. <https://doi.org/10.3238/arztebl.m2022.0409>
- 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>
- Ismayilzade, A. A., Guliyeva, S., Teymurova, V., Azizova, R., & Alishova, C. (2021). The impact of Covid-19 on the quality of human capital for the economic development of Azerbaijan. *Journal of Eastern European and Central Asian Research (JEECAR)*, 8(1), 26–39. <https://doi.org/10.15549/jeecar.v8i1.639>

- Jeste, S., Hyde, C., Distefano, C., Halladay, A., Ray, S., Porath, M., Wilson, R. B., & Thurm, A. (2020). Changes in access to educational and healthcare services for individuals with intellectual and developmental disabilities during COVID-19 restrictions. *Journal of Intellectual Disability Research*, 64(11), 825–833. Portico. <https://doi.org/10.1111/jir.12776>
- Khatri, P., Agrawal, K. K., Sharma, D., Chhetri, P., Neupane, A., Piryani, R. M., Baral, P. P., Sapkota, S. R., Banjade, A., Chhetri, A., Bhandari, S., & Bharali, S. (2021). Prevalance of Elevated D-dimer Levels in Confirmed COVID-19 Cases in Intensive Care Unit of a Tertiary Care Centre of Western Nepal. *Journal of Nepal Medical Association*, 59(235), 243-247. <https://doi.org/10.31729/jnma.6284>
- Korenman, S., & Hyson, R. T. (2023). Health insurance, labor market shocks, and mental health during the first year of the COVID-19 crisis. *Economics & Human Biology*, 51, 101298. <https://doi.org/10.1016/j.ehb.2023.101298>
- Lunetti, C., Di Giunta, L., Gliozzo, G., Riccioni, C., Comitale, C., Basili, E., Baxseliyeva, A., & Virzi, A. T. (2023). Parental Happiness Socialization and Youth Adjustment in Italy and Azerbaijan in the COVID-19 Pandemic Era. *International Journal of Environmental Research and Public Health*, 20(4), 3604. <https://doi.org/10.3390/ijerph20043604>
- Mikayilova, U. T., Orujova, L., & Babayeva, U. (2023). Status of Inclusive Education in Azerbaijan. In *Progress Toward Agenda 2030: A Mid Term Review of the Status of Inclusive Education in Global Contexts*, pp. 121-137, Emerald Publishing Limited. <https://doi.org/10.1108/s1479-363620230000021009>
- Miller, S. M., & van Heumen, L. (2021). Inclusive online research with people labeled with intellectual and developmental disabilities during the COVID-19 pandemic: technological adaptations. *Journal of Enabling Technologies*, 15(2), 122-135.
- Mills, W. R., Sender, S., Lichtefeld, J., Romano, N., Reynolds, K., Price, M., Phipps, J., White, L., Howard, S., Poltavski, D., & Barnes, R. (2020). Supporting individuals with intellectual and developmental disability during the first 100 days of the COVID-19 outbreak in the USA. *Journal of Intellectual Disability Research*, 64(7), 489–496. Portico. <https://doi.org/10.1111/jir.12740>
- Navas, P., Amor, A. M., Crespo, M., Wolowiec, Z., & Verdugo, M. Á. (2021). Supports for people with intellectual and developmental disabilities during the COVID-19 pandemic from their own perspective. *Research in Developmental Disabilities*, 108, 103813. <https://doi.org/10.1016/j.ridd.2020.103813>
- Neece, C., McIntyre, L. L., & Fenning, R. (2020). Examining the impact of COVID-19 in ethnically diverse families with young children with intellectual and developmental disabilities. *Journal of Intellectual Disability Research*, 64(10), 739–749. <https://doi.org/10.1111/jir.12769>
- Ren, J., Li, X., Chen, S., Chen, S., & Nie, Y. (2020). The Influence of Factors Such as Parenting Stress and Social Support on the State Anxiety in Parents of Special Needs Children During the COVID-19 Epidemic. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.565393>
- Roberts, A., Chouhan, R. S., Shahdeo, D., Shrikrishna, N. S., Kesarwani, V., Horvat, M., & Gandhi, S. (2021). A Recent Update on Advanced Molecular Diagnostic Techniques for COVID-19 Pandemic: An Overview. *Frontiers in Immunology*, 12. <https://doi.org/10.3389/fimmu.2021.732756>

- Sahin, G. (2021). Chronic kidney disease predicts poor outcomes of COVID-19 patients. *International Urology and Nephrology*, 53(9), 1891–1898. <https://doi.org/10.1007/s11255-020-02758-7>
- Smitha, S. G., Pillai, N., Nayak, B., & Raveendran, J. (2021). A Study on Otorhinolaryngological Presentations in Covid 19 Patients in a Tertiary Health Care Center. *Indian Journal of Otolaryngology and Head & Neck Surgery*, 74(S2), 2935–2940. <https://doi.org/10.1007/s12070-021-02564-2>
- Suaifan, G. A. R. Y., Alkhawaja, B. A., & Mohammed, A. A. M. (2022). RNA Coronaviruses' Outbreaks: Recent Progress on the SARS-CoV-2 Pandemic Diagnostic Tests, Vaccination and Therapeutics. *Mini-Reviews in Medicinal Chemistry*, 22(4), 617–628. <https://doi.org/10.2174/1389557521666210422113915>
- Supratiwi, M., Yusuf, M., & Anggarani, F. K. (2021). Mapping the Challenges in Distance Learning for Students with Disabilities during Covid-19 Pandemic: Survey of Special Education Teachers. *International Journal of Pedagogy and Teacher Education*, 5(1), 11-18. <https://doi.org/10.20961/ijpte.v5i1.45970>
- Thakur, A., Pereira, C., Hardy, J., Bobbette, N., Sockalingam, S., & Lunskey, Y. (2021). Virtual Education Program to Support Providers Caring for People With Intellectual and Developmental Disabilities During the COVID-19 Pandemic: Rapid Development and Evaluation Study. *JMIR Mental Health*, 8(10), e28933. <https://doi.org/10.2196/28933>
- The State Committee for Family, Women and Children Affairs of the Republic of Azerbaijan. (2020). Analysis of the impact of the COVID-19 pandemic on families. *Family, Women and Children* (25), pp.40-47, <http://family.gov.az/store/media/Aila%20qadin%20ushaq%20Jurnal%C4%B1.pdf>
- Toquero, C. M. D. (2020). Inclusion of People with Disabilities amid COVID-19: Laws, Interventions, Recommendations. *Multidisciplinary Journal of Educational Research*, 10(2), 158-177. <https://doi.org/10.17583/remie.2020.5877>
- Toseeb, U., Asbury, K., Code, A., Fox, L., & Deniz, E. (2020). Supporting Families with Children with Special Educational Needs and Disabilities During COVID-19. <https://doi.org/10.31234/osf.io/tm69k>
- UNICEF. (2020). Comprehensive measures must be taken to protect the safety, well-being and future of children from the COVID-19 pandemic. April 17, <https://www.unicef.org/azerbaijan/az/press-relizl%C9%99r/unicef-covid-19-pandemiyas%C4%B1ndan-u%C5%9Faqlar%C4%B1n-t%C9%99hl%C3%BCK%C9%99sizliyini-rifah%C4%B1n%C4%B1-v%C9%99-g%C9%99l%C9%99c%C9%99yini>
- Verdiyeva, T., Muradli, A., & Huseynova, N. (2022). Impact of the Covid-19 Pandemic on the Well-being of Children with Disabilities and their Parents in Azerbaijan. *The Unequal Costs of Covid-19 on Well-being in Europe* (pp. 133-147): Springer. [https://doi.org/10.1007/978-3-031-14425-7\\_8](https://doi.org/10.1007/978-3-031-14425-7_8)
- Wong, P. W., Lam, Y., Lau, J. S., & Fok, H. (2021). The Resilience of Social Service Providers and Families of Children With Autism or Developmental Delays During the COVID-19 Pandemic—A Community Case Study in Hong Kong. *Frontiers in Psychiatry*, 11. <https://doi.org/10.3389/fpsy.2020.561657>