



Article

Volunteer Working during COVID-19 in Jordanian Community: Advantages and Challenges

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Abstract: This study deals with the crisis volunteering during the lockdown period of the COVID-19 pandemic in Jordan. This study aims to identify the skills that volunteers acquire during voluntary work. Moreover, it aims to identify whether there are significant differences for volunteer difficulties and advantages regarding gender, age, and education level. Researchers employed a quantitative method, using a questionnaire to achieve the goals of this study. The sample was 121 voluntary people (females and males) during the pandemic in a Jordanian community. The results of this study have shown that volunteering during the COVID-19 pandemic has had a positive impact on volunteers during this period in terms of acquiring a variety of skills. Furthermore, there were numerous difficulties faced by volunteers, and there were no statistically significant differences in the level of skills acquired by volunteers as a result of their participation in volunteering.

Keywords: volunteer; volunteering; COVID-19; skills; challenges



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1. Introduction

Jordan is a Middle Eastern country, and the majority of the 11 million inhabitants of Jordan are Arab (98%), with the remaining 2% comprising different ethnic groups ([The Hashemite Kingdom of Jordan \(HKJ\) \(2020\)](#)). In Jordan, as in most Arab societies, socio-cultural practices influence most aspects of one's life. Jordan belongs to the Arab World, and Islam is the religion in this country. Jordanian people speak a variety of spoken Arabic known as Jordanian Arabic. As in other countries in the Middle East, Jordan is considered to be a developing country, although it keeps observing its norms and traditions in all aspects of people's life ([Al Momani and Al-Refaei 2010](#)).

In the Arab context, in countries such as Jordan, the family is the basic building block of society, and it is the first educational and cultural environment that embraces children. There are many dominant values of the Arab family including honor, obligations, responsibility, and unity ([Tadmouri et al. 2004](#)).

As a result of COVID-19, healthcare systems postponed medical care volunteer activities, regardless of how important these volunteers' contributions are to patient care and hospital operations in the American healthcare system. Virtual volunteering can relieve stress on hospital staff, improve patient experiences, lower the risk of viral infection, and give patients and their families a sense of normalcy ([Pickell et al. 2020](#)).

Previous researchers have investigated the critical importance of community volunteers and how they may be deployed effectively during a crisis. Several findings have emerged, including the importance of collaboration among local citizens, civil society, including community-based organizations, and regional government to fill gaps in public services; the critical role of experienced local volunteers, who quickly switched to COVID-19 from other causes as the pandemic peaked; and an example of state-led coproduction based on long-term relationships ([Miao et al. 2021](#)).

Volunteers have been helping their communities, and the significance of their effort must be emphasized and recognized. However, there are many challenges faced by the volunteers during the COVID-19 pandemic. On the other hand, volunteering at this trying time encouraged individuals to band together and grow stronger and more self-assured.

2. Literature Review

2.1. Overview

Volunteering may be an important aspect of coproduction, since coproducing volunteers actively provide relevant public services to their local communities, sometimes without receiving any monetary remuneration (Nabatchi et al. 2017). Volunteering provides a variety of health and eudemonic benefits (such as higher self-rated health, reduced levels of depression, improved wellbeing, self-esteem, and quality of life) (Jenkinson et al. 2013). Volunteering is an important action for improving social outcomes (such as civic participation) and, as a result, the survival of organizations and events. The conventional style of in-person volunteering, however, is vulnerable due to social distancing techniques during COVID-19 and a mix of postponements or cancellations of structure or event operations (Lachance 2020). Volunteering on the internet may serve as a long-term chronicle of interpersonal physical interaction between volunteers and the people they help. It is worth noting that building infrastructure for virtual volunteering during this epidemic might be useful in the future. Virtual volunteering can safeguard immunocompromised patients and volunteers who are isolated or otherwise at high risk, both during and after the pandemic, while still allowing them to receive or contribute psychological, educational, and awareness-raising services (Narine 2020).

2.2. Community Initiatives and Voluntary in Jordan during the COVID-19 Pandemic

Jordan is an Arab state located in the northern part of the Arabian Peninsula. After the World Health Organization (WHO) declared COVID-19 as a pandemic disease, the first case of COVID-19 infection was reported in Jordan on 2 March 2022. A policy of extensive contact tracing followed by quarantine of asymptomatic contacts and hospital isolation and screening of symptomatic contacts was enforced (Samrah et al. 2020). Jordan realized early on that the global community was largely unable to stop the spread of the virus and that its health system would not be able to cope with a pandemic (Al Gharaibeh and Gibson 2022). One of the healthiest follow-up steps for the nongovernmental organizations (NGOs) in Jordan was going to be the development of a chapter of the Association of Fund-Raising Professionals (AFP), and the intent would be to form the third international chapter of AFP, located in Amman. This network capacity would build on the Director's Roundtable and offer an ongoing legacy for the NGOs throughout Jordan (Mason 2004).

During COVID-19, it became clear there was a need for the private sector, civil society, and volunteers to assume a greater role during the lockdown (Al Gharaibeh and Gibson 2022). The Jordanian community, groups, or individuals showed initiative and volunteered as a response to the crisis of COVID-19. Al Gharaibeh (2020) showed examples of how Jordanian people responded to the crisis; several individual and community initiatives were launched to help mitigate the effects of the crisis. District-based initiatives have also sprung up across the country—for example, an initiative started by groups of retired nurses and doctors who would consult, serve, and dispense the required medication to patients in their neighborhoods in collaboration with their former places of practice. In addition, the Jordan Medical Association's initiative was an example of Jordanians initiatives, which provided 1000 volunteer doctors to work in the Ministry of Health. Furthermore, private hospitals announced that they would receive COVID-19 cases to support the government in dealing with the crisis. Moreover, the government launched a special online account (L'enak Qadaha or Because You're Willing and Able) to receive public donations and initiatives using the website www.corona.moh.gov.jo (accessed on 15 April 2022) (Al Gharaibeh and Gibson 2022).

In addition, the Watan (Home Country) Initiative in Jordan is a cooperative effort by the Ministry of Health, the Civil Defence Administration, and the Jordan Medical, Dentists', and Pharmacists' Associations. This initiative aims to provide support to medical and healthcare staff, reduce their exposure to the public, and shield the elderly from exposure (Al Gharaibeh and Gibson 2022). Another initiative in Jordan during COVID-19 is the Aman (Security) Application, which is a smart digital application that provides protection from infection to individuals, their families, and communities by informing them of the possibility of their exposure to the COVID-19 virus. It uses geographical positioning system technology to alert users that they have come into contact with a person with confirmed infection and provide them with steps to take (Al Gharaibeh and Gibson 2022).

This crisis has demonstrated the urgent need to reorganize voluntary and social work in Jordan and to better train social workers to be able to deal with crisis situations and their social and psychological aftermath more effectively (Al Gharaibeh 2020). In addition, regarding the challenges facing volunteers during the pandemic, Almharmeh and Alhjjaj (2022) showed in their study the extent to which the COVID-19 pandemic had a large effect on volunteerism in the Amman and Balqa regions in Jordan. Regarding this, the study recommended training volunteer teams in crisis management skills and building comprehensive national databases for volunteers and their institutions, as well as the need for state financial support for volunteer projects and programs.

2.3. COVID-19 and Voluntary Work

As the COVID-19 epidemic spreads over the world, the demand for volunteers has skyrocketed. Demographic backgrounds, socioeconomic traits, personality, and psychological aspects were all investigated in the (Mak and Fancourt 2021) study. Formal volunteering, social action volunteering, and neighborhood volunteering were recognized as three categories of volunteering during the pandemic, according to the findings of the study. According to regression research, demographic backgrounds, socioeconomic characteristics, personality, and psychological factors all influenced the pattern of volunteer activity (Mak and Fancourt 2021).

COVID-19 has wreaked havoc on billions of people's personal and professional lives throughout the world, forcing governments to swiftly adjust to a new reality marked by rising death rates, lockdowns, social isolation, and teleworking (Oldekop et al. 2020). During the COVID-19 epidemic, people volunteered to help the public health system, went shopping for people in high-risk areas, and donated to organizations (e.g., Beardmore et al. 2020). Volunteering in this crisis—COVID-19—helped individuals to band together and grow stronger and more confident in themselves.

The COVID-19 outbreak has sparked a massive outpouring of sympathy. Online volunteering platforms, in particular, have been built as a means of channeling assistance to high-risk communities. Volunteers' satisfaction with their COVID-19 volunteering facilitated through these platforms is unknown, as is whether they will continue their participation after the crisis. As a result, and taking into account personal susceptibility to COVID-19 infection, this study examines the impact of various platforms' support on participants' motivations. The research is based on an online poll of 565 participants who signed up for a Swiss online platform. COVID-19 volunteering pleasure is driven by the fulfillment of several volunteer goals and platform support. Furthermore, motivational fulfillment and platform-related support have an indirect influence on long-term volunteerism via volunteering satisfaction. Finally, the empirical findings reveal that platform support and purpose satisfaction are both dependent on perceived infection vulnerability (Trautwein et al. 2020).

2.4. Advantages and Challenges of Voluntary Work during COVID-19

During the COVID-19 pandemic, one study (Zhang et al. 2021) attempted to conduct a timely assessment of the psychological load on and experience of medical student volunteers. Depression, anxiety, and stress were detected in 26.8%, 20.2%, and 11.1% of medical

student participants, respectively, according to the study's findings. Before starting work, the volunteers' negative feelings were stronger and eventually faded. The majority of individuals were unconcerned about becoming sick but were concerned about contamination in their families. Volunteering was largely motivated by participants' responsibilities as medical students and support from their families and professors. The great majority of medical students stated that they would be willing to work as medical assistants again, and that their experience would have no impact on their future career choice (Zhang et al. 2021).

During pandemics, volunteering in the health-care industry is critical. The study by Adejimi et al. (2021) aimed to investigate the attitudes and perspectives of clinical medical and dental students in Lagos, Nigeria, concerning volunteering during the coronavirus disease pandemic of 2019 (COVID-19). The majority of respondents (82.9%) agreed to volunteer if they were given suitable personal protection equipment (PPE) and were properly taught to do so (79.3%). Despite its danger, the majority of responders (91.2%) saw volunteering during the COVID-19 epidemic as a type of educational experience. In the case of a healthy manpower crisis, students in their penultimate year were more willing to volunteer than final year students. If the government asked, final-year students were more inclined to volunteer. Female pupils were more numerous than male students. Even if they were not reimbursed, female students were more inclined than male students to volunteer, even if it required parental consent (Adejimi et al. 2021).

To improve volunteer uptake and operational processes, strategies such as providing housing, monetary and academic-related incentives, assisting with the transition from students to "professional volunteers", promoting cohesive and positive staff-student volunteer relationships, and forming a volunteer management team were identified (Seah et al. 2021). Furthermore, during the COVID-19 pandemic, pandemic-related volunteerism outstripped regular volunteerism levels. As a result, following the coronavirus pandemic, both political engagement and volunteerism have grown (Mikecz and Oross 2020).

Another study (Lazarus et al. 2021) aimed to evaluate Indonesian medical students' willingness to volunteer and their readiness to practice during the COVID-19 pandemic. Results show that among 4870 participants, 2374 (48.7%) expressed their willingness to volunteer, while only 906 (18.6%) did not. The shortage of medical personnel, a sense of duty, and solicitation by stakeholders were the main reasons that increased the students' willingness to volunteer, whereas, contrarily, fear for one's own health, the absence of a cure, and fear of harming patients were the primary factors diminishing their willingness to volunteer (Lazarus et al. 2021).

Bazan et al. (2021) describe the experiences of 580 students from a single medical university in Poland who volunteered at various healthcare facilities within the first six months after the country's first case was documented (March–September 2020).

Triage, patient call centers, admission wards, hospital clinics, emergency departments, and diagnostic labs were among the most common duties performed by the studied group. Fear levels in the study group were low at the start of volunteering and did not rise over time. The majority of students reported receiving positive feedback from family, friends, patients, and healthcare workers, as well as a high level of satisfaction from volunteering (even when faced with COVID-19-related prejudice), with professional experience and a sense of giving real aid being among the most frequently mentioned benefits. The study's findings show that, while medical students are not critical workers in the COVID-19 pandemic, they are important workers nevertheless. They may be a huge help to healthcare systems in times of crisis, and they should be recognized as such in the future if the need arises (Bazan et al. 2021).

During the COVID-19 pandemic, another (Zhang et al. 2021) study attempted to undertake a timely evaluation of the psychological load on and experience of medical student volunteers. The study found that 26.8%, 20.2%, and 11.1% of medical student participants had depression, anxiety, and stress, respectively. Before starting work, the volunteers' negative feelings were more intense, but they eventually faded. The majority of

individuals were unconcerned about becoming infected individually but were concerned about family contamination. Participants were particularly motivated to volunteer because of their responsibilities as medical students and support from their families and professors. The great majority of medical students stated that they would be willing to work as medical assistants again and that their previous experience would have no impact on their future decisions (Zhang et al. 2021).

2.5. Ethics in Social and Voluntary Work

Marketing ethics and social responsibility have become more important to consumers, as well as other stakeholders. Historically, social responsibility has been more voluntary, and ethics are required to maintain compliance and integrity. That dynamic is changing as stakeholders want firms to be responsible for overall quality of life and social welfare (Ferrella and Ferrellb 2021). Firms can see attitudes toward their brands improve, and their behavior toward customers and employees will drive consumer and employee loyalty (He and Harris 2020). After the 2020 pandemic, firms recognized their overall mission is to protect and serve people (Martella 2020). Weller (2017) confirms that ethics and social responsibility are managed differently in firms; social responsibility is seen as more external, and ethics requires an internal focus. Volini et al. (2020) indicate that the new “social contract” on the importance of being focused on the welfare of people is important for marketing success, aligning people with advancing technology.

Similarity, social norms can be defined as the informal rules that dictate what is acceptable in a given social context (Brennan et al. 2013). Experts in social norm intervention theory recognize that social norms are embedded in larger ecological networks including material conditions, institutions, family structures, and so on (Cislaghi and Heise 2019). Greater attention should also be paid to the consequences of the interventions, such as impacts on gender relations, psychosocial wellbeing, and cultural identities (Rennie et al. 2021).

Yet, the building blocks are now in place—definitions, the widespread importance of faith and spirituality, how religious ethics are entwined with secular and social work ethics, and the stage is set to explore students’ own thinking and experience through exercises. It can be concluded, whether from a humanist or theist perspective, the heart of the work involves meaning and spirit, respect for persons, resisting oppression, and striving for social justice and compassion in our practice (Elliott 2017).

3. The Significance of This Research

This research can be considered important from both theoretical and practical perspectives, as follows:

In terms of theoretical significance, this is one of the first studies that examines the privileges gained by volunteers as a result of participating in volunteer work, as well as the challenges faced by volunteers in light of the COVID-19 pandemic. Furthermore, it examines the global interest in the COVID-19 pandemic in general, and in Jordan in particular, to strengthen the social responsibility of members of society to cooperate to confront the crisis situations as an inevitable result of it.

Regarding the practical significance, it addresses the urgent need for the efforts of young volunteers, especially in a society with limited resources such as Jordan, where volunteer work is one of the important bodies to help manage the crisis. Therefore, identifying the challenges facing and limiting the participation of these volunteers will be important to remove the obstacles faced by volunteers and thus activate their participation in society. In addition, we identify the privileges and challenges that affect participation in volunteer work in epidemiological conditions to deal with them, which will contribute to directing specialists and policymakers to direct efforts to facilitate the task of young volunteers, and to keep pace with changes to suit the emergency conditions in society so that it works to motivate young people and develop their skills and abilities to participate in alleviating the risks. We also explore the effects of this pandemic or any emergency circumstance that

society may face by attracting volunteers and encouraging them to participate by amending or adding laws that encourage young people to continue to actively participate without hesitation in volunteer work in case of crises.

4. Methodology

The researchers conducted an online survey among COVID-19 volunteers. Descriptive analysis was used in this research, which was used to review the most important literature in relation to “volunteering during the Corona pandemic skills and challenges study on a sample of volunteers in Jordan”. The descriptive approach is founded on the classification of data to be able to describe the phenomenon of the study and its community through a field survey of the sample of study members made up of members of the Jordanian community volunteers during the COVID-19 pandemic. This study is of an analytical quantitative nature, and the researchers collected responses from the sample to reach the conclusions of the research.

4.1. Data Collection

The researchers in this study used both primary sources in order to meet the study goals. The sources of preliminary information were obtained through the questionnaire distributed to members of the Jordanian community to learn about volunteerism during the COVID-19 pandemic and their privileges and challenges to cover the aspects addressed by the theoretical framework and the questions on which the study was based. The researchers distributed the questionnaire to the members of the study sample comprised of 121 members of Jordanian society.

4.2. The Study Community and Its Sample

The non-probability sampling method was chosen to achieve the objectives of the study due to the lack of accurate and sufficient information about the volunteers, their numbers, and places volunteered during the COVID-19 pandemic and the conditions of the comprehensive ban, which limited the possibility of communication with other institutions. Volunteer *, as one of the active voluntary institutions in Jordan, was founded by one of the old students at Al-Balqa Applied University during the pandemic period. The questionnaire link was sent to the founder of the program, who circulated the questionnaire through volunteer groups via email. Then they requested volunteers to send the link to colleagues who participate in volunteer work in other institutions, and thus the sample members were obtained.

The study community is members of the Jordanian community who volunteered during the COVID-19 pandemic, and the study community is relatively limited. It was reached through the snowball technique, where the survey was guided and researched by the respondents themselves, by asking volunteer individuals who performed similar work during the COVID-19 pandemic. Then we identified and contacted the participating individuals and distributed the study tool to them. Table 1 describes the demographics of the study sample's members.

Table 1. The study sample members by demographic features.

Variable	Class	Frequency	Percentage
Sex	Male	33	27.3
	Female	88	72.7
	Total	121	100.0
Age	20 years and less.	37	30.6
	0–21 years	59	48.8
	40–31 years	11	9.1
	More than 40 years.	14	11.6
	Total	121	100

Table 1. Cont.

Variable	Class	Frequency	Percentage
Job	works he/she	29	24
	He/she doesn't work	92	76
	Total	121	100
Educational level	Secondary school and below	27	22.3
	Intermediate Diploma	10	8.3
	Bachelor	74	61.2
	Master and Top	10	8.3
	Total	121	100
Marital status	single	95	78.5
	married	24	19.8
	absolute	1	0.8
	widower	1	0.8
	Total	121	100
Property	city	90	74.4
	village	29	24
	Desert	1	0.8
	camp	1	0.8
	Total	121	100
Income	Less than 400 dinars	79	65.3
	800–401 dinars	27	22.3
	1200–801 dinars	6	5
	1600–1201 dinars	4	3.3
	1601 dinars and more	5	4.1
	Total	121	100
Did you take part in direct voluntary work for those in need during the pandemic?	Yes	79	65.3
	No	42	34.7
	Total	121	100
Did you participate in voluntary work through social media sites?	Yes	96	79.3
	No	25	20.7
	Total	121	100
Have you participated in providing direct services to corona patients	Yes	38	31.4
	No	83	68.6
	Total	121	100
Did you participate with the help of the families of those injured in Corona?	Yes	44	36.4
	No	77	63.6
	Total	121	100

4.3. The Questionnaire

To collect preliminary information and data, the researcher built a scale by which she measured the privileges achieved by the volunteers through his/her participation in volunteer work, as well as measuring the challenges that affect volunteers' participation in volunteer work during the COVID-19 pandemic using a questionnaire. This questionnaire was distributed electronically online to 121 respondents through the Google Survey website and by email due to the repercussions of the emerging COVID-19 crisis, as data collection started during April and May 2021.

The three-part scale was as follows:

Part 1 includes demographic information, consisting of sex, age, work, educational level, marital status, place of residence, income, participation in voluntary work for those in need during the pandemic, participation in voluntary work through social media sites, participation in direct services for COVID-19 patients, and participation through assistance to families of those infected by COVID-19.

Part 2 measures the skills acquired by volunteers through volunteering and includes 28 paragraphs.

Part 3 measures the difficulties and challenges faced by volunteers while volunteering and includes 28 paragraphs.

4.4. Reliability and Validity

Data collection is undoubtedly the most difficult step researchers face when conducting scientific research, and there are many considerations that the researcher should make when writing a scientific study and selecting a data collection tool. The sincerity and stability of the data provided by the tool is one of the most important foundations of data collection in scientific research, because this will lead to strong validity of the results of the entire scientific research. The search tool provides us with information regarding the research problem from the study community itself; the honesty of the content reflects the extent to which the metric measures the characteristics of the object that the research aims to measure.

Validity: After the initial picture (***) arbitrator) was prepared, the scale was submitted for validation to faculty members in the departments of sociology and social work at the University of Balqa Applied. They were able to voice their ideas regarding the sincerity of the content and the validity of the phrases for the scale and its suitability to measure what it was developed to determine. As a result, the necessary changes were presented. The criterion (80%) was taken into consideration to indicate the validity of the paragraph, and some passages were rewritten in order to improve clarity based on the arbitrators' recommendations. Others were omitted because they were unsuitable for the study's aims. Thus, the scale was made up of 56 paragraphs separated into two major axes, and the researcher took the arbitrators' judgments and revisions as evidence of the study tool's sincerity. The Cronbach Alpha Coefficient test was used to measure the stability of the tool in measuring the variables it contains, where the results of the stability of the scale are statistically acceptable if the value of Cronbach's Alpha is greater than (0.70) (Hair et al. 2011). Table 2 shows the measurement test of the Internal Consistency Coefficient Cronbach Alpha for study variables, their dimensions, and the study tool as a whole to determine the consistency of the answers.

Table 2. Cronbach Alpha test for stability coefficients for study tool paragraphs.

Stability Coefficient Using Cronbach Alpha	Paragraphs	The Variables
0.974	28	Skills acquired by volunteers through volunteering
0.956	28	Difficulties and challenges faced by volunteers while volunteering

Table 2 shows that the values of the Cronbach Alpha subdivisions of the scale ranged from 0.956 to 0.974, which are acceptable for the purposes of the current study.

4.5. Statistical Analysis

The Statistical Package Program (SPSS V-21) was used in the following tests:

- Extracting repetitions and percentages to describe the members of the study sample.
- Using the Alpha Cronbach test to ensure the tool is stable.
- Descriptive statistics: Calculation averages were extracted to detect the level of responses of study sample members and standard deviations to determine the level of dispersion of responses.
- Using the three-way ANOVA tri-contrast test.

5. Discussion and Results

Scale correction key:

We took into account that the five-point Likert scale used in the study should be graded according to the rules and characteristics of the metrics.

Strongly Dis-Agree	Dis-Agree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Based on the foregoing, the study’s calculating averages were regarded as follows: The minimum value of response choices divided by number of levels equals the top value. $1.33 = \frac{4}{3} = \frac{(1-5)}{3}$, and this value is equal to the length of the class.

3 3

So, the low level is $1.00 + 1.33 = 2.33$

The average level is $2.34 + 1.33 = 3.67$

The high level is 3.68–5.00

This section of the study contains descriptive statistics, such as calculating averages and standard deviations to determine how the study sample members responded to volunteering during the COVID-19 epidemic in terms of privileges and challenges, as well as inference analyses.

Next we calculated the results of **the first question**: What skills do volunteers acquire through volunteering?

Calculation averages and standard deviations were calculated to identify the level of skills acquired by volunteers through volunteering during the emerging Corona pandemic, as shown in Table 2.

Table 3 shows that the calculation averages of paragraphs (skills acquired by volunteers through volunteering during the emerging COVID-19 pandemic) ranged from 4.45 to 4.16. For example, paragraph 14 (I create volunteering I have a love of active participation in community issues) has the highest average (4.45) and St. Deviation (0.69). Paragraphs (11, 16) came in second place with an average of 4.40 for both, with St. Deviations of 0.79 and 0.68 at the high level. Paragraph 11 concerned ‘volunteering contributed to the development of my self-confidence’, and paragraph 16 concerned ‘volunteering increased my ability to establish successful social relationships’.

Paragraph 8 placed last with an average of 4.16 and a St. Deviation of 0.80 at a high level, and the penultimate paragraph was 4, with an average of 4.17 and a St. Deviation of 0.83 at a high level, where the paragraph stipulated ‘I became better at recording notes more accurately’.

Table 3 notes that all the values of the calculation averages for paragraphs in this area were above the default arithmetic average level (3.00), and all (t) calculated values were higher than the table value (T) (1.96). All of these values are indicative of the statistical significance level (0.05), indicating statistically significant differences between the average arithmetic of the scale and the default arithmetic average (3.00), indicating that volunteers have already acquired skills through work practice and volunteering during the emerging COVID-19 pandemic.

Table 3. Calculation averages and test (t) of the responses of the members of the study sample to the level of “skills acquired by volunteers through volunteering during the emerging COVID-19 pandemic” ranked downwards by arithmetic average.

No.	Paragraph	Arithmetic Average	Standard Deviation	Value (t)	Rank	Level
14	I find my volunteering a love of active participation in community issues.	4.45	0.69	22.903 *	1	High

Table 3. Cont.

No.	Paragraph	Arithmetic Average	Standard Deviation	Value (t)	Rank	Level
11	Volunteering has contributed to developing my self-confidence	4.40	0.79	19.439 *	2	High
16	Volunteering has increased my ability to establish successful social relationships	4.40	0.68	22.702 *	2	High
25	Acquire new skills and methods in dealing with others.	4.40	0.63	24.560 *	2	High
9	My involvement in volunteering made me prefer to work with the team.	4.39	0.77	19.891	5	High
1	My participation in volunteering in these circumstances has developed a skill to communicate with others.	4.38	0.85	17.880 *	6	High
26	Volunteering has led to the acquisition of new acquaintances and friends	4.38	0.64	23.877 *	6	High
28	I was encouraged to participate in volunteering to leave my mark in multiple places in my country.	4.38	0.72	21.034 *	6	High
13	Volunteering has the values of belonging to the community.	4.37	0.70	21.657 *	9	High
22	My participation in volunteering has increased my ability to dialogue and exchange views.	4.37	0.72	20.950 *	9	High
23	I'm becoming more receptive to others.	4.37	0.72	20.950 *	9	High
6	I'm becoming more responsible.	4.36	0.68	21.880 *	12	High
12	Volunteering has increased my decision-making ability.	4.36	0.74	20.226 *	12	High
24	I've increased my ability to develop myself.	4.36	0.68	21.958 *	12	High
20	Volunteering increased my ability to work under pressure.	4.34	0.73	20.308 *	15	High
21	I'm becoming more able to plan and organize.	4.32	0.66	22.005 *	16	High
5	I've developed a skill in collecting information and data.	4.31	0.73	19.717 *	17	High
15	I've got the ability to propose solutions more.	4.30	0.73	19.653 *	18	High
7	My ability to interact with society has become better.	4.28	0.82	17.210 *	19	High
2	I'm becoming more able to interview others.	4.26	0.84	16.474 *	20	High
18	Volunteering has helped expand my network of relationships at the level of the working community	4.26	0.77	17.957 *	20	High
19	Volunteering has increased my ability to lead	4.26	0.68	20.400 *	20	High

Table 3. Cont.

No.	Paragraph	Arithmetic Average	Standard Deviation	Value (t)	Rank	Level
17	Volunteering has gained practical experience that will increase my chances of getting a job later.	4.23	0.83	16.236 *	23	High
27	I'm better able to invest my free time.	4.23	0.75	18.058 *	23	High
10	I've developed a problem-solving skill.	4.21	0.78	17.203 *	25	High
3	My observations of what's around me have become more accurate.	4.18	0.77	16.783 *	26	High
4	I'm better at recording notes more accurately.	4.17	0.83	15.441 *	27	High
8	My ability to organize and manage time is better.	4.16	0.80	15.991 *	28	High
Total		4.32	0.57	25.440 *		High

Default value (t) = 3.00, table value (t) = ± 1.96 , *: function at the indication level (0.05) and below.

For youth, volunteering is most often a way to earn experience and establish a connection for their future careers, and older people consider voluntary assistance to be an essential life value (Narine 2020).

Next, we calculated the results of the **second question**: What are the difficulties and challenges that volunteers face during volunteering?

The means and standard deviations were calculated to recognize the difficulties and level of volunteering during the emerging COVID-19 pandemic, as shown in Table 4.

Table 4. Calculation averages and test (t) of the responses of the study sample members to the level of "difficulties faced by volunteers during volunteering during the emerging COVID-19 pandemic" ranked downwards by calculation average.

No.	Paragraph	Arithmetic Average	Standard Deviation	Value (T)	Rank	Level
27	There are obstacles for females related to customs and traditions that affect the extent of their participation	3.64	1.15	6.146 *	1	Mid-level
28	There's no legislation that protects us as volunteers that sometimes makes us reluctant to participate in volunteer work.	3.50	1.19	4.656 *	2	Mid-level
18	Society reduces the role of the volunteer and his ability to bring about change	3.24	1.10	2.390 *	3	Mid-level
7	The large number of family commitments affects the degree of my participation in volunteering	3.23	1.13	2.250 *	4	Mid-level
21	In some cases, volunteers only aim to obtain certificates.	3.22	1.20	2.044 *	5	Mid-level
14	Lack of enough time to volunteer because of my work/studies	3.19	1.08	1.931	6	Mid-level
16	Lack of awareness of the concept of volunteering in society affects my ability to participate in volunteering	3.16	1.15	1.505	7	Mid-level

Table 4. Cont.

No.	Paragraph	Arithmetic Average	Standard Deviation	Value (T)	Rank	Level
25	Lack of an organized plan or clear description of the tasks required of us as volunteers	3.06	1.13	0.564	8	Mid-level
3	Volunteer institutions keep secrets that make me, as a volunteer, know a lot of things.	3.04	1.12	0.405	9	Mid-level
19	The lack of media interest in raising awareness of the importance of volunteering limits my enthusiasm for participating in volunteering	3.01	1.18	0.077	10	Mid-level
11	Some volunteers tend to neglect to take on the responsibilities assigned to them.	3.00	1.12	0.000	11	Mid-level
22	Limiting volunteering to certain routine areas increases my reluctance to participate	3.00	1.18	0.000	11	Mid-level
12	Some volunteers tend to underestimate volunteering by taking advantage of the flexibility of this work.	2.98	1.18	0.155	13	Mid-level
26	The multiplicity of supervisors as volunteers causes us psychological and physical pressure.	2.98	1.11	0.164	13	Mid-level
2	The poor material potential of voluntary institutions has affected my motivation to participate in volunteering	2.97	1.16	0.313	15	Mid-level
10	Lack of sufficient information on the importance of volunteering limits my participation in it	2.93	1.18	0.695	16	Mid-level
15	I didn't get enough training to volunteer properly.	2.89	1.06	1.112	17	Mid-level
5	As a volunteer, I face administrative handicaps that limit my enthusiasm and my ability to volunteer.	2.85	1.09	1.497	18	Mid-level
1	My lack of respect and appreciation from the officials reduced my motivation to volunteer.	2.83	1.24	1.544	19	Mid-level
6	I had difficulties dealing with staff.	2.83	1.11	1.723	19	Mid-level
17	The lack of encouragement from my family to participate in volunteer work affects my enthusiasm to participate in it.	2.83	1.33	1.372	19	Mid-level
9	I see there's a focus on working individually at the expense of working as a team.	2.82	1.13	1.765	22	Mid-level
4	I find myself as a volunteer in a dark circle for not evaluating and directing the administration for the volunteer work I do.	2.81	1.21	1.723	23	Mid-level
24	The volunteer foundation does not provide lunches for volunteers if they volunteer for long hours	2.81	1.13	1.854	23	Mid-level

Table 4. Cont.

No.	Paragraph	Arithmetic Average	Standard Deviation	Value (T)	Rank	Level
13	I don't want to volunteer far from my place.	2.73	1.23	2.436 *	25	Mid-level
8	I find that voluntary institutions are using volunteers to do other work.	2.65	1.15	3.334 *	26	Mid-level
23	I can't find collaboration by staff at the volunteer organization with volunteers.	2.64	1.06	3.676 *	27	Mid-level
20	Non-compliance of volunteering supervisors with volunteer ethics	2.60	1.05	4.229 *	28	Mid-level
	Total	2.98	0.78	0.280		Mid-level

Default value (t) = 3.00, table value (t) = ± 1.96 , *: function at the indication level (0.05) and below.

Table 4 shows that the calculation averages of the paragraphs (difficulties faced by volunteers during volunteering during the emerging CORONA pandemic) ranged from 3.64 to 2.60. On average, paragraphs 27, 28, 18, 7, and 21 have the highest calculation averages, which represent the most important difficulties faced by volunteers during the emerging COVID-19 pandemic, e.g., 'there are obstacles in front of females related to customs and traditions that affect their participation' ranked highest with an average of 3.64 and a St. Deviation of 1.15, and 'there is no legislation protecting us as volunteers that sometimes makes us reluctant to participate in volunteering' had an average of 3.15 with a St. Deviation of 1.19. Furthermore, 'society reduces the role of the volunteer and his ability to make a change' had an average of 3.24 with a St. Deviation of 1.10. The next paragraph (The large number of family commitments affecting my degree of participation in volunteering) had an average of 3.23 and a St. Deviation of 1.13. Lastly, the paragraph 'in some cases only the goal of volunteers to obtain certificates' had an average of 3.22 with a St. Deviation of 1.20.

The results showed that the (t) values calculated for all these paragraphs were higher than 1.96, indicating statistically significant differences between the averages of the scale and the default average (3.00). This indicates that these paragraphs were already the most difficult challenges encountered by volunteers during the COVID-19 pandemic.

Paragraphs 13, 8, 23, and 20 represented the lowest-level difficulties faced by volunteers during the pandemic. The paragraph 'volunteer supervisors' failure to adhere to volunteer ethics' came last, with an average of 2.60 and a St. Deviation of 1.05. The paragraph 'I do not find cooperation by staff in the volunteer organization with volunteers' came in the penultimate place with an average of 2.64 and a St. Deviation of 1.06. The last paragraph (I find that voluntary institutions you use volunteers to do other work) had an average of 2.65 and a St. Deviation of 1.15.

The average values of all these paragraphs were lower than the default arithmetic average (3.00), while the (t) values were negative and greater than (-1.96), so the results showed statistically significant differences at the indication level (0.05) between the default arithmetic average and the average arithmetic of the scale, indicating an overall decrease in these difficulties.

Despite their enjoyment, it should be highlighted that young people suffered the most during the COVID-19 pandemic since they are the most active in society in terms of production, mobility, and engagement, therefore this catastrophe was devastating in terms of their lifestyle and future chances (Narine 2020).

While volunteers should be urged to return to their in-person placements as soon as it is safe to do so, virtual volunteering is presently the sole safe alternative, and it will likely remain a common component of medical volunteer programs long after the COVID-19 epidemic has passed (Pickell et al. 2020).

Third question results: Is there a statistically significant difference in volunteer abilities based on gender, age, or educational attainment?

To answer **the third question** of the study, mathematical averages and standard deviations were extracted and a three-way ANOVA tri-variation test was used to identify the differences in volunteer skills attributable to gender, age, and educational level, as shown in Table 5.

Table 5. Arithmetic averages and standard deviations to identify the level of volunteer skills attributable to sex, age, and educational level.

		Number	Arithmetic Average	Standard Deviation
Skills	Sex			
	male	33	4.30	0.63
	female	88	4.32	0.55
	Age			
	20 years and less.	37	4.39	0.44
	20–21 Years	59	4.35	0.66
	40–31 Years	11	4.11	0.50
	40 years and older	14	4.15	0.51
	Total	121	4.32	0.57
	Education Level			
	Secondary and below	27	4.44	0.47
	Intermediate Diploma	10	3.96	0.61
	Bachelor	74	4.35	0.57
	Master and more	10	4.06	0.62
Total	121	4.32	0.57	

Table 5 shows the differences between the values of the averages of volunteer skills attributable to sex, age, and educational level, and to identify the significance of the differences.

The three-way ANOVA triad test was employed, the results of which appear in Table 6.

Table 6. Three-way ANOVA Triad Test to identify differences in volunteer skills due to gender, age, and educational level.

Source	Total Squares	Degrees of Freedom df	Average Squares	Value F	Statistical Significance Sig.
Sex	0.005	1	0.005	0.015	0.903
Age	0.462	3	0.154	0.483	0.695
Education Level	1.761	3	0.587	1.842	0.144
Error	36.012	113	0.319		
Total	2293.606	121			
Corrected Total	38.898	120			

Table 6 revealed no statistically significant differences between volunteer skills levels due to sex, age, or educational level, with statistical (F) values of 0.015, 0.483, and 1.842, respectively, which were not significant at the indication level (0.05), as well as differences between arithmetic averages, if any. They did not reach the level of statistical significance.

However, experience is what gives age its true worth. The experience of the participants improves professionalized service delivery, which is a major aspect of coproduction and a developing trend in volunteerism in general (Ganesh and McAllum 2012).

Results for question four: Is there a statistically significant difference in the challenges volunteers confront based on their age, gender, or educational level?

To address the study's fourth question, arithmetic averages and standard deviations were calculated, and the three-way ANOVA tri-variation test was performed to find changes in volunteer problems related to sex, age, and educational level, as shown in Table 7.

Table 7. The arithmetic averages and standard deviations used to determine the amount of difficulty participants confront as a result of changes in gender, age, and educational level.

		Number	Arithmetic Average	Standard Deviation
Difficulties	Sex			
	male	33	2.96	0.74
	female	88	2.99	0.79
	Age			
	20 years and less.	37	2.72	0.80
	20–21 Years	59	2.98	0.77
	40–31 Years	11	3.51	0.52
	40 years and older	14	3.23	0.68
	Total	121	2.98	0.78
	Education Level			
	Secondary and below	27	2.64	0.89
	Intermediate Diploma	10	3.07	0.56
	Bachelor	74	3.04	0.74
	Master and more	10	3.38	0.67
Total	121	2.98	0.78	

Table 7 shows the differences between the values of the calculation averages of the difficulties faced by volunteers due to sex, age, educational level; to identify the significance of the differences.

The three-way ANOVA triad test was used, the results of which appear in Table 8.

Table 8. Three-way ANOVA Tri-Contrast Test to identify differences in the level of difficulties faced by volunteers due to gender, age, and educational level.

Source	Total Squares	Degrees of Freedom df	Average Squares	Value F	Statistical Significance Sig.
Sex	0.070	1	0.070	0.122	0.728
Age	2.870	3	0.957	1.672	0.177
Education Level	1.456	3	0.485	0.848	0.470
Error	64.637	113	0.572		
Total	1147.274	121			
Corrected Total	72.584	120			

Table 8 shows no statistically significant differences between the level of difficulties met by volunteers due to gender, age, and educational level, with statistical values (F) of 0.122, 1.672, and 0.848, respectively, which were not significant at the indication level (0.05), and the differences between arithmetic averages, if any. They did not reach the level of statistical significance.

6. Conclusions

Beyond individual motivations and behaviors, this research contributes to a better understanding of how to handle large numbers of spontaneous volunteers in a pandemic situation. In addition, we emphasize the difficulties that volunteers experienced during COVID-19. Our data also offer a wealth of information on the skills and experience that volunteers bring to their voluntary work. Fanscourt and Mak' respondents, with a wider social network and greater levels of social support, were more likely to engage in all sorts of volunteer activities (Mak and Fancourt 2021).

This study found that:

- 1 Volunteering during the COVID-19 pandemic has had a positive impact on volunteers during this period in terms of acquiring a variety of skills, which is an incentive for these volunteers to continue to participate in volunteering as these skills may be positively reflected in the volunteer, both in his or her personal private life and working life. Beyond individual motivations and behaviors, this research contributes to a better understanding of how to handle large numbers of spontaneous volunteers in a pandemic situation, which agrees with [Al Gharaibeh \(2020\)](#). This crisis has demonstrated the urgent need to reorganize voluntary and social work in Jordan and to better train social workers to be able to deal more effectively with crisis situations and their social and psychological aftermaths. [Beardmore et al. \(2020\)](#) also indicated that volunteering in this crisis—COVID-19—helped individuals to band together and grow stronger and more confident in themselves. Empowering volunteers is important for the holistic care of patients. While it is realistic to presume that volunteer characteristics remain consistent over time, helping during a pandemic may draw volunteers from a variety of demographic groups ([Mak and Fancourt 2021](#)). Volunteers should continue to help this community, and the significance of their efforts should be acknowledged ([Pickell et al. 2020](#)).
- 2 The most prominent difficulties faced by volunteers while volunteering during the emerging COVID-19 pandemic were faced by women, where customs and traditions that restrict the movement of women for fear of mixing with the opposite sex, directly or indirectly, may be due to the stereotype of women's work, which is limited to the work of the house and no work is encouraged outside this framework. In addition, the difficulties faced by volunteers that make them reluctant to participate is the lack of legislation protecting volunteers in these epidemiological circumstances. There is a great need to protect volunteers, especially since they are vulnerable to health risks in these circumstances, and the results of the study clarify that volunteers see the view of society as negative with reduced importance of their participation in bringing about change in society. This relates to the culture of society and its view of young people in general and their role in participating in taking responsibility in these circumstances. Assisting and creating a volunteer network provides easy access and multiple channels to serve the needs of patients and their families. These should develop as part of the Self Help and Family Support Group ([Pradubwong et al. 2015](#)).
Yet, a major impediment to government volunteering is the government's ability to effectively use volunteers and link volunteers' coproduction to relevant responsibilities ([Gazley and Brudney 2005](#)).
- 3 There were no statistically significant differences in the level of skills acquired by volunteers as a result of their participation in volunteering, i.e., the skills acquired by young people participating in volunteering were the same regardless of gender, age, or educational level, which is an indication of the benefits sought by volunteers without any regard for the characteristics of the volunteer. [Almharmeh and Alhjjaj \(2022\)](#) recommended that there is a need to train volunteer teams in disaster and crisis management skills, and build comprehensive national databases for volunteers and their institutions.
- 4 The lack of statistically significant differences in the level of challenges faced by volunteers due to gender, age, and educational level indicates that the difficulties faced by volunteers are not related to volunteers' gender, age, or educational level, but rather to the difficulties faced by volunteers regardless of these variables, making it critical to seek to overcome these difficulties as they are universal and affect all types of volunteers.

Conversely, developing virtual programs for some of the services that volunteers frequently give is a crucial strategy to safeguard COVID-19-affected volunteers, community members, patients, and physicians. Overall, this might be a good method to improve the

safety of our brave front-line workers while also providing protection to the rest of the community (Pickell et al. 2020).

7. Recommendations

Based on the results of this study, the researchers recommend the following:

- 1 The need to find legislation that protects volunteers to remove their fears and reluctance to participate in volunteering.
- 2 Working to raise awareness of the importance of allowing women to participate in volunteering as an important partner in supporting society and taking responsibility, especially in humanitarian emergencies such as the COVID-19 pandemic.

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References

- Adejimi, Adebola Afolake, Babatunde Adeniran Odugbemi, Oluwakemi Ololade Odukoya, Kehinde Sharafadeen Okunade, Aminah Oluwatamilore Taiwo, and Akin Osibogun. 2021. Volunteering during the COVID-19 pandemic: Attitudes and perceptions of clinical medical and dental students in Lagos, Nigeria. *Nigerian Postgraduate Medical Journal* 28: 1–13. [CrossRef] [PubMed]
- Al Gharaibeh, Fakir. 2020. The response of Jordanian society and social workers to the COVID-19 crisis. *International Social Work* 63: 811–14. [CrossRef]
- Al Gharaibeh, Fakir, and Laura Gibson. 2022. Public Health Policy on the COVID-19 Pandemic and its Impact on the Behavior Patterns of Families. *Journal of International Womens Studies* 23: 136–51.
- Al Momani, Kawakib Radwan, and Dana Faisal Al-Refaei. 2010. A Socio-Textual Analysis of Written Wedding Invitations in Jordanian Society. *LSP Journal* 1: 61–80. Available online: <http://lsp.cbs.dk> (accessed on 31 May 2010).
- Almharmeh, Bayan, and Huda Abd-alhamed Alhajjaj. 2022. The Effect of the Corona Pandemic on Volunteers and Beneficiary Groups in Amman and Balqa. *Journal of Averroes University in Holland* 47: 182–202.
- Bazan, Dominika, Michal Nowicki, and Piotr Rzymiski. 2021. Medical students as the volunteer workforce during the COVID-19 pandemic: Polish experience. *International Journal of Disaster Risk Reduction* 55: 102109. Available online: <https://reader.elsevier.com/reader/sd/pii/S2212420921000753?token=75733E323F186B5D14CCB8E5E5D743F4413755037187B86E200DA0AF20F21F00734C389DF4DA41C9E437A819E6BD0582&originRegion=eu-west-1&originCreation=20211213192847> (accessed on 9 February 2021). [CrossRef] [PubMed]
- Beardmore, Amy, Mat Jones, Michele Biddle, Jo White, Sanda Umar Ismail, Stuart McClean, and Andy Gibson. 2020. *Apart But Not Alone: Neighbour Support and the Covid-19 Lockdown [UWE Research Project]*. Bristol: University of the West of England.
- Brennan, Geoffrey, Lina Eriksson, Robert Goodin, and Nicholas Southwood. 2013. *Explaining Norms*. Oxford: University Press.
- Cislaghi, Beniamino, and Lori Heise. 2019. Using Social Norms Theory for Health Promotion in Low-Income Countries. *Health Promotion International* 34: 616–23. [CrossRef]
- Elliott, Nigel. 2017. Faith, ethics and social work: Framework for an Introductory Lecture. *Ethics and Social Welfare* 11: 92–99. [CrossRef]

- Ferrelle, Odies C., and Linda Ferrellb. 2021. New directions for marketing ethics and social responsibility research. *Journal of Marketing Theory and Practice* 29: 13–22. [CrossRef]
- Ganesh, Shiv, and Kirstie McAllum. 2012. Volunteering and professionalization: Trends in tension? *Management Communication Quarterly* 26: 152–58. [CrossRef]
- Gazley, Beth, and Jeffrey L. Brudney. 2005. Volunteer involvement in local government after September 11: The continuing question of capacity. *Public Administration Review* 65: 131–42. [CrossRef]
- Hair, Joe F., Christian M. Ringle, and Marko Sarstedt. 2011. PLS-SEM: Indeed a silver bullet. *The Journal of Marketing Theory and Practice* 19: 139–52. [CrossRef]
- He, Hongwei, and Lloyd Harris. 2020. The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy. *Journal of Business Research* 116: 176–82. [CrossRef] [PubMed]
- Jenkinson, Caroline E., Andy P. Dickens, Kerry Jones, Jo Thompson-Coon, Rod S. Taylor, Morwenna Rogers, Clare L. Bamba, Iain Lang, and Suzanne H. Richards. 2013. Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health* 13: 773. [CrossRef]
- Lachance, Erik. 2020. COVID-19 and its impact on volunteering: Moving towards virtual volunteering. *Leisure Sciences* 43: 104–10. Available online: https://www.researchgate.net/profile/Erik-Lachance/publication/342829040_COVID-19_and_its_Impact_on_Volunteering_Moving_Towards_Virtual_Volunteering/links/5f08511a92851c52d626a47c/COVID-19-and-its-Impact-on-Volunteering-Moving-Towards-Virtual-Volunteering.pdf (accessed on 14 September 2020). [CrossRef]
- Lazarus, Gilbert, Ardi Findyartini, Azis Muhammad Putera, Nico Gamalliel, David Nugraha, Imam Adli, Jason Phowira, Lyanna Azzahra, Bagas Ariffandi, and Indah Suci Widyahening. 2021. Willingness to volunteer and readiness to practice of undergraduate medical students during the COVID-19 pandemic: A cross-sectional survey in Indonesia. *BMC Medical Education* 21: 138. Available online: <https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-021-02576-0> (accessed on 1 March 2021). [CrossRef]
- Mak, Hei Wan, and Daisy Fancourt. 2021. Predictors of engaging in voluntary work during the COVID-19 pandemic: Analyses of data from 31,890 adults in the UK. *Perspectives in Public Health* 1. [CrossRef] [PubMed]
- Martella, Roger. 2020. Corporate Social Responsibility in an Era of COVID-19. American Bar Association Issue 5. Available online: https://www.americanbar.org/groups/environment_energy_resources/publications/trends/2019-2020/may-june-2020/corporate-social-responsibility/ (accessed on 7 May 2020).
- Mason, Joan L. 2004. Nongovernmental organization sustainability support in the Middle East. *New Directions for Philanthropic Fundraising* 2004: 61–70. [CrossRef]
- Miao, Qing, Susan Schwarz, and Gary Schwarz. 2021. Responding to COVID-19: Community volunteerism and coproduction in China. *World Development* 137: 105128. [CrossRef]
- Mikecz, Dániel, and Dániel Oross. 2020. Political Participation and Volunteering during the Covid-19 Pandemic in Hungary. *Corvinus Journal of Sociology and Social Policy* 11: 175–77. Available online: <http://unipub.lib.uni-corvinus.hu/6534/1/581-2499-1-PB.pdf> (accessed on 3 June 2021). [CrossRef]
- Nabatchi, Tina, Alessandro Sancino, and Mariafrancesca Sicilia. 2017. Varieties of participation in public services: The who, when, and what of coproduction. *Public Administration Review* 77: 766–76. [CrossRef]
- Narine, Wiegel. 2020. Virtual volunteers: New strategies of volunteering during the pandemic of COVID-19. *Научный альманах стран Причерноморья* 4: 27–31. Available online: <https://cyberleninka.ru/article/n/virtual-volunteers-new-strategies-of-volunteering-during-the-pandemic-of-covid-19/viewer> (accessed on 21 June 2020).
- Oldekop, Johan A., Rory Horner, David Hulme, Roshan Adhikari, Bina Agarwal, Matthew Alford, Oliver Bakewell, Nicola Banks, Stephanie Barrientos, Tanja Bastia, and et al. 2020. COVID-19 and the case for global development. *World Development* 134: 105044. [CrossRef] [PubMed]
- Pickell, Zachary, Kathleen Gu, and Aaron M. Williams. 2020. Virtual volunteers: The importance of restructuring medical volunteering during the COVID-19 pandemic. *Medical Humanities* 46: 537–40. [CrossRef]
- Pradubwong, Suteera, Darawan Augsornwan, Pornpen Pathumwiwathana, Benjamas Prathanee, and Bowornsilp Chowchuen. 2015. Empowering Volunteers at Tawanchai Centre for Patients with Cleft Lip and Palate. *Journal of the Medical Association of Thailand* 98: S47–S53. Available online: <http://www.jmatonline.com> (accessed on 21 June 2020).
- Rennie, Stuart, Adam Gilbertson, Denise Hallfors, and Winnie Luseno. 2021. The Ethics of Stigma in Medical Male Circumcision Initiatives Involving Adolescents in Sub-Saharan Africa. *Public Health Ethics* 14: 79–89. [CrossRef] [PubMed]
- Samrah, Shaher M., Abdel-Hameed W. Al-Mistarehi, Ali M. Ibnian, Liqaa A. Raffee, Suleiman M. Momany, Musa Al-Ali, Wail A. Hayajneh, Dawood H. Yusef, Samah M. Awad, and Basheer Y. Khassawneh. 2020. COVID-19 outbreak in Jordan: Epidemiological features, clinical characteristics, and laboratory findings. *Annals of Medicine and Surgery Journal* 57: 103–8. Available online: www.elsevier.com/locate/amsu (accessed on 21 June 2020). [CrossRef]
- Seah, Betsy, Ben Ho, Sok Ying Liaw, Emily Neo Kim Ang, and Siew Tiang Lau. 2021. To Volunteer or Not? Perspectives towards Pre-Registered Nursing Students Volunteering Frontline during COVID-19 Pandemic to Ease Healthcare Workforce: A Qualitative Study. *International Journal of Environmental Research and Public Health* 18: 6668. Available online: <https://www.mdpi.com/1660-4601/18/12/6668> (accessed on 21 June 2021). [CrossRef]
- Tadmouri, Ghazi Omar, Mahmoud Taleb Al Ali, Ali Sarah Al-Haj, and Najib Al Khaja. 2004. *Genetic disorders in the Arab World: United Arab Emirates. The Arab World*. Dubai: Centre for Arab Genomic Studies, pp. 1–5.

- The Hashemite Kingdom of Jordan (HKJ). 2020. The Official Site of the Jordanian e-Government. Available online: <https://portal.jordan.gov.jo/wps/portal/Home/AboutJordan?lang=en&isFromLangChange=yes> (accessed on 16 July 2020).
- Trautwein, Stefan, Florian Liberatore, Jorg Lindenmeier, and George Von Schnurbein. 2020. Satisfaction With Informal Volunteering During the COVID-19 Crisis: An Empirical Study Considering a Swiss Online Volunteering Platform. *Nonprofit and Voluntary Sector Quarterly* 49: 1142–51. [CrossRef]
- Volini, Erica, Jeff Schwartz, Brad Denny, David Mallon, Yves Van Durme, Maren Hauptmann, Ramona Yan, and Shannon Poynton. 2020. Returning to Work in the Future of Work. Deloitte Global Human Capital Trends. Available online: <https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2020/covid-19-and-the-future-of-work.html> (accessed on 1 May 2020).
- Weller, Angeli. 2017. Professional associations as a community of practice: Exploring the boundaries of ethics and compliance and social responsibility. *Business and Society Review* 122: 359–92. [CrossRef]
- Zhang, Kaiting, Yixiang Peng, Xiaowei Zhang, and Liping Li. 2021. Psychological Burden and Experiences Following Exposure to COVID-19: A Qualitative and Quantitative Study of Chinese Medical Student Volunteers. *International Journal of Environmental Research and Public Health* 18: 4089. Available online: <https://www.mdpi.com/1660-4601/18/8/4089> (accessed on 13 April 2021). [CrossRef]