

Information Vulnerability Amid The COVID-19 Pandemic: Syrian Refugees In Turkey

COVID-19 Pandemisinde Bilgi Kırılganlığı: Türkiye’deki Suriyeli Mülteciler

Burak Ağalday¹ , Mehmet İhsan Özdemir² 

Abstract

States were caught unprepared by the COVID-19 pandemic. This caused a hitch in briefing the public with true and sufficient information. Refugees may be exposed to these drawbacks more due to the language barrier and social isolation. They are an especially vulnerable group in the COVID-19 pandemic due to their adverse life conditions and difficulty in accessing social services and information. In this paper, we study the Syrians who fled to Turkey during the Syrian civil war. We examine the Syrians’ information vulnerability and sources of information using original online survey data and archives of official institutions in charge of the refugee response and the management of the pandemic. It is concluded that Syrians are less knowledgeable than the host community regarding COVID-19 precautions and administrative measures. It is also found that the Syrians’ level of information on administrative measures is likely to increase when institutional announcements are followed. Additionally, naturalized Syrians are more likely to acquire true information on administrative measures than the Syrians under temporary protection. We argue that official institutions play a crucial role in building refugees’ information resilience, yet their briefing is unsystematic and uncomprehensive.

Keywords

COVID-19, Information vulnerability, Institutional briefing, Syrian refugees, Turkey, Precarity

Öz

Koronavirüs (COVID-19) pandemisine devletlerin hazırlıksız bir şekilde yakalandığını söylemek mümkündür. Bu yüzden pandemi sürecine dair doğru ve gerekli bilgilerin kamuoyuyla paylaşılmasında aksaklıklar yaşanmıştır. Mülteciler, toplumdaki tecrit edilmişlik ve dil farklılığı gibi bariyerler nedeniyle bu aksaklıkların yarattığı olumsuzluğa daha fazla maruz kalabilmektedir. Buna istinaden mültecilerin olumsuz yaşam şartları, sosyal hizmetlere ve doğru bilgiye erişimde yaşadığı zorluklar dikkate alındığında onların COVID-19 pandemisinde savunmasız ve kırılgan bir grup olduğunu söylemek yerinde olacaktır. Bu çalışmamızda Suriye iç savaşı sırasında Türkiye’ye sığınan Suriyelilerin bilgiye erişimi ele alınmaktadır. Özgün çevrimiçi anket verisi ve pandemi sürecinde kamuoyunu bilgilendiren ilgili kurumların arşivleri ışığında Suriyelilerin bilgi kırılganlığı ve bilgi kaynakları incelenmiştir. Ev sahibi topluluğun ve Suriyeli mültecilerin bilgiye erişiminin karşılaştırmalı olarak ele alındığı bu çalışmamızda Suriyeli mültecilerin COVID-19 önlemleri ve idari tedbirler konusunda ev sahibi topluma göre daha az bilgili olduğu sonucuna ulaşılmıştır. Ayrıca idari tedbirler konusunda Suriyelilerin bilgi seviyesinin kurumsal duyuruların takibiyle arttığı gözlemlenmiştir. Son olarak, vatandaşlık statüsündeki Suriyelilerin geçici koruma statüsündeki Suriyelilere kıyasla idari tedbirler konusunda doğru bilgiler edinmesi daha olasıdır. Bundan hareketle resmi kurumların mültecilerin bilgi direncini oluşturmada oldukça önemli bir rol oynadığı ancak bu bilgilendirmelerin sistematik ve kapsamlı olmadığı tartışılmaktadır.

Anahtar Kelimeler

COVID-19, Bilgi kırılganlığı, Suriyeli mülteciler, Kurumsal bilgilendirme, Türkiye, Güvencesizlik

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To cite this article: Ağalday, B., & Özdemir, M. İ. (2022). Information vulnerability amid the COVID-19 pandemic: Syrian refugees in Turkey. *SİYASAL: Journal of Political Sciences*, 31(2), 369–383. <http://doi.org/10.26650/siyasal.2022.31.1110721>

Introduction

An 18-year old Syrian teen going to work was shot dead by a police officer after attempting to escape a curfew checkpoint (MEMO, 2020). Did he run in order to avoid being fined? Was he aware that the curfew did not apply to working youth? The incident triggered the following research question: Are refugees more vulnerable to COVID-19 than the host community? We study the Syrian-origin people, who fled to Turkey during the Syrian civil war to investigate this question. We examine the difference in the level of information on the basic COVID-19 precautions and administrative measures between the host community and the Syrians. We also analyze the Syrians' source of information during the pandemic. It is argued that Syrians are less knowledgeable on COVID-19, and they rely on authorized institutions (Ministry of Health -MoH-, Ministry of Interior -MoI, Directorate General of Migration Management -DGMM-) briefings. It is suggested that official institutions take the lead in building refugees' information resilience by systematically briefing the refugees, particularly in refugees' native language.

Coronavirus, named COVID-19 and announced as a pandemic by the WHO, spread worldwide, infected nearly 500 million people, and caused more than six million deaths globally by March 2022 (see WHO, 2022). Its impact across countries varied widely. It hit, for instance, Italy and Spain harshly, while it was relatively less impactful in Germany. At the sub-state level, the pandemic has threatened particular groups such as refugees due to their vulnerability towards the virus. While medical history and demographic characteristics are predominantly emphasized in comprehending the implications and alleviating the impact of the pandemic, the governments acted slowly in their response to disadvantaged communities, who lack access to sanitary conditions or necessary information to prevent the infection (Amnesty International, 2020; Subbaraman, 2020). In Turkey, Syrian refugees, who correspond to nearly 5% of the total population, are vulnerable due to their impoverished life conditions, language barrier, and access to information.

In this study, we find that Syrians are less knowledgeable than the host community in basic preventive medical and administrative measures. Amongst the Syrians' information sources are their effort to follow the official institutions' announcements. We also observe a statistically meaningful difference between the Syrians under temporary protection and those who have acquired Turkish citizenship. Education is a significant demographic determinant of the level of information. The study is an attempt to observe the refugees' vulnerability amid the COVID-19 catastrophe. The outputs are not generalizable to the population. We sought to probe the plausibility of the nexus between institutional briefing and refugees' information resilience.

Based on these results, the implications of our study are twofold: first, refugees' vulnerability requires an immediate institutional response so that their disadvantageous position does not exacerbate the impact of the pandemic; and second, refugees' information resilience should be an institutional priority not only in the short term but also in the long term.

We first begin by reviewing the literature on the structural and institutional vulnerability of the Syrian refugees in Turkey. We then introduce three hypotheses and the methodology

to test these hypotheses. We finally analyze the results and discuss the role of institutions in building information resilience.

Literature Review

Refugees experience structural and institutional vulnerabilities. The structural vulnerabilities may stem from host communities' perception of outsiders, the interaction between refugees and host people, the political climate, the size of the refugee population, and the host states' capacity. In the Turkish case, scapegoating, the politicization of the refugee issue, stigmatization, and difficulties in access to the labor market or social services constitute the structural foundations of refugee vulnerability. For instance, refugees are blamed for house rent increases, higher inflation, unemployment, and rising crime rates (Karasu, 2019, pp. 61–62). The negative perception towards refugees is not limited to their social and economic position, it is perpetrated against their culture, belief system, and personal traits. Erdoğan (2018, pp. 56–57), in his large-N analysis of Turks and Syrians, indicated that Syrians are delineated with negative traits such as laziness and rudeness by the majority of Turks. The host community's unfavorable approach towards refugees may hinder refugees' access to social services and the labor market, exacerbating their vulnerability (Pelek, 2019). The discrimination in social and economic life undermines refugees' ability to achieve or maintain a stable standard of living (Şimşek, 2018, pp. 379–383; Tümtaş, 2018, p. 40). Lower and irregular wages, collective living, child labor, and social isolation comprise some of the challenges experienced by the refugees (Akpınar, 2017, p. 20; Güneş Aslan and Güngör, 2019; Incetahtacı, 2020; Ünal and Doğan, 2020). In addition to the social and economic vulnerabilities, the abuse of the issue by political actors may influence refugees' prospect adversely (İçduygu, 2017) and feed negative attitudes through partisanship (İlgiç & Memisoglu, 2017). The political exploitation manifests itself in the EU-Turkey bargaining (Rygiel, Baban, & Ilcan, 2016), pre-election campaigns (Yanaşmayan, Ustubici, & Kasli, 2019), legal status discussions (Akcapar & Simsek, 2018), and the cross-border resettlement of refugees (İçduygu & Nimer, 2020).

While structural vulnerabilities may emerge out of context, institutional vulnerability generates legal drawbacks for refugees. In the Turkish context, refugees' legal status and neglect from organizations are the main facets of institutional vulnerability. As a party to the 1951 Geneva Convention with geographical limitation (Protocol relating to the Legal Status of Refugees, 1968), Turkey has not granted "refugee" status to Syrians; instead, they have been entitled to "temporary protection" since 2014 (Temporary Protection Regulation, 2014). Institutional recognition of temporariness creates ambiguity for the future of Syrians in Turkey due to the issue's sensitivity to the political climate.

Information acquisition crosscuts structural and institutional factors. The mediating role of access to information creates vulnerability both in the structural and institutional landscape. The literature mainly emphasizes the structural outputs of the information landscape and its implications are multifarious. It is commonly associated with refugees' settlement and adaptation to the new surroundings (Lloyd, 2014), social inclusion (Kennan, Lloyd, Thompson, & Qayyum, 2013) and information acquisition for the determination of migration routes (Miconi, 2020). In the new context, the settlers utilize

various sources of information to cope with the contextual factors. The role of youth in the transmission of information to families (Lloyd & Wilkinson, 2016), public libraries (Vårheim, 2014) and social media (Dekker, Engbersen, Klaver, & Vonk, 2018) are some forms of information acquisition. Despite the diversity of the sources of information, the public institutions as policymakers and executors have reliable information and the capacity to disseminate this information. As Erdoğan (2020, p. 179) indicated, refugees request official briefings continually regarding new policies, rights and responsibilities. This study addresses a gap in the literature through highlighting the institutional dimension of the information landscape. We aim to bring up the issue of information resilience in the political science realm and analyze the issue in terms of the authorized institutions' role in access to reliable information. Therefore, we frame the information landscape not in the form of refugees as information pursuers and survivors of the structure but within the context of institutional liability for the provision of information. Particularly in the pandemic, refugees are a vulnerable group due to the lack of cleaning items and domestic water, insufficient nutrition, medical background (Balcilar, 2016; see also AFAD, 2017; Júnior *et al.*, 2020), congested residence, poor access to housing and sanitation (Truman *et al.*, 2009). The lack of or difficulty in access to information may exacerbate the refugee situation. Therefore, we underline the role of institutions in charge in alleviating the refugees' vulnerability by instituting the channels leading to information resilience.

Theoretical Expectations

Hypothesis 1: Syrian-origin individuals are more likely to be less knowledgeable about COVID-19 and administrative restrictions.

We expect that people of Syrian origin in the target population are less knowledgeable on COVID-19 symptoms, preventive measures, and precautionary legal restrictions. Recent research demonstrates that Syrians face a language barrier (Gürsoy & Ertaşoğlu, 2019; İçduygu & Şimşek, 2016; Kollender & Nimer, 2020), which retards their integration to the host community. The studies also indicate that the economic difficulties force the refugees to live in their own segregated congregation (Incehtahtacı, 2020, pp. 516–517). The lack of integration due to poor language proficiency, social discrimination, and isolation is likely to influence Syrians' access to information through interaction. In addition, a low standard of living with limited access to TV and the Internet would be a contributing factor to refugees' level of information.

Hypothesis 2: Syrians who follow the institutional briefings more are likely to be more knowledgeable than other Syrians.

The Ministry of Health, which informs the public on the preventive measures, and the Ministry of Interior, which issues the administrative restrictions, are the leading institutions in managing the pandemic. The municipal authorities also convey information through daily oral announcements at the provincial level. Additionally, we expect the DGMM, the sole authority in the refugee response, to brief its target population, likewise the aforementioned institutions. Thus, we hypothesize that those who follow the institutional channels are more likely to know the preventive and administrative measures.

Hypothesis 3: Syrian-origin individuals who hold Turkish citizenship are more likely to be knowledgeable than those under temporary protection.

Some Syrians that fled to Turkey after 2011 have been granted citizenship based on certain conditions such as marriage, high skills, education and profession (Akcapar & Simsek, 2018, p. 179). We expect the citizenship criteria to foster integration through higher interaction with the host community, social acceptance, and language proficiency (see Ager & Strang, 2008). Income is another facilitator of integration. The wealthier groups are likely to live outside the Syrian population and share a common environment with the host community (Şimşek, 2018). They are also likely to have access to information platforms such as TV and the Internet, which would enable them to learn more about COVID-19 and administrative measures. Thus, citizenship may expedite the process of inclusion, integration, and access to information channels. Therefore, we hypothesize that naturalized Syrians are more knowledgeable than Syrians under temporary protection.

Research Design

We conducted an original survey in Turkey with 625 members of the host community and 659 Syrian-origin people who fled to Turkey after 2011 and have held either temporary protection or Turkish citizenship status. The survey was administered online, involving 46 questions and six additional control variables specific to Syrians. Prior to the question formation, the researchers interviewed 13 Syrians from diverse demographics on the phone to grasp the Syrians' information channels and reflect those in the survey accordingly. The survey took nearly seven minutes to complete and was available in Turkish and Arabic between May 17 & 22, 2020. The Arabic version was translated by the researchers and checked by three Syrian-origin people independently. Both versions were pretested with 22 Turkish and 18 Syrian people. The amendments were made accordingly following the pilot study and those who attended the pretest were excluded from the analysis.

We used convenience sampling to reach the target populations. The participants were approached through Facebook, Twitter, and Instagram announcements through influential public figures and news agencies. In addition, multiple referral mechanisms such as Mukhtars, local & international NGOs, and prominent figures were utilized to reach a diverse sample. We obtained a diversified Turkish and Syrian sample regarding age, gender, household income and ethnicity (Table 1).

We first ran OLS regression to observe if the aggregate level of knowledge of COVID-19 differs across groups, namely the Turkish-origin and Syrian-origin communities. Then we continued with the last model to understand the determinants of the level of knowledge of the Syrian community by adding the Syrian-specific control variables. In the third model we built latent variables (Italicized) whose reliability was tested with Cronbach's Alpha. We reported robust estimates using STATA 15.

In addition to the statistical model, we screened Turkish and Arabic announcements/news by the institutions in charge to better interpret the outputs. We broke down the number of informative announcements available on the official websites and social media accounts between March 11 and May 22, 2020. We counted any announcement or news briefing to people on precautionary and administrative measures. The results are indicated in Table 3.

The fundamental limitation of the study is the survey method, which may create sampling error and coverage bias by excluding those who have poor/no access to computer/smart phone/Internet, those who lack computer literacy, and illiterate people. The social isolation rules (travel restrictions and curfews) and the danger of the entry into the public sphere in the pandemic prevented the researchers from a face-to-face survey mode, which would have eased the outreach to hard-to-reach groups and access to a larger sample size, but produced a risky environment both for refugees and the researchers. We also observed that religious minorities (i.e. Christians) within the host community and a significant number of Syrians refused to participate in the survey due to distrust.

Dependent Variable

The dependent variable is the participants' information level. We asked the respondents to answer six questions about administrative orders to fight the pandemic and six questions about general information on COVID-19 (see Appendix). The answers are threefold: 1.Yes, 2.No and 3.Not sure. The correct answer is coded as "1" and the wrong answer along with "Not Sure" response are coded as "0". The participants' t-score was measured for each question to reflect the impact of the difficulty of the question, then a composite score for each participant was calculated. The t-score of participants ranged between 31-56, indicating the level of information from lowest to highest. Eleven participants, who scored 0, were dropped as they were considered a result of respondent fatigue.

The administrative statements are taken from the ministerial orders, which were effective at the time of field study. The general information statements are based on the Ministry of Health's 14 rules on how to avoid the virus (MoH, 2020) and academic studies reflected in the Turkish press (i.e. BBC, 2020c; van Doremalen *et al.*, 2020). Any questionable or unproven premises are omitted.

Independent Variables

The independent variables are related to the other information channels and the participants' frequency of information acquisition from these channels. For the explanatory variable, we asked a matrix question to the respondents "How often do you follow the following institution's announcements, news, social media accounts or website about COVID-19 [1. Municipality, 2.Governorate, 3. Ministries]?" We also added DGMM in the Arabic questionnaire, which is the sole authority in managing the refugee response. We used a 5-point Likert scale and "Don't know" for the answers: 1) "Never", 2)"Rarely", 3) "Occasionally", 4)"Frequently", 5)"Always."

Table 1
Descriptive Statistics

Variables	Turkish Sample				Syrian Sample			
	Mean	St. Dev.	Min.	Max.	Mean	St.Dev.	Min	Max
Demographic Variable								
Women	0.42	0.49	0	1	0.39		0	1
Age	31.76	9.97	16	74	29.83	8.84	16	73
Income	7.9	4.08	1	16	4.49	2.95	1	16
Education	4.58	0.95	1	7	4.23	0.89	1	7
Household Size	3.19	1.09	1	6	3.35	1.28	1	6
Citizenship holder					0.17		0	1
Turkish proficiency					3.06	1.1	1	5
Source of Information								
Frequency of Wathing TV					1.23	1.3	0	5
Frequency of Surfing Internet					3.04	1.53	0	5
NGO					2.41	1.21	1	5
Institutional Briefing					0	1.77	-2.56	3.57
Dependent Variable								
Disease Score	51.4	4.75	29.5	55.2	48.66	5.42	29.5	55.2
Measures Score	51.5	4.48	34.7	59.58	48.55	3.99	34.6	59.5

We also controlled the socio-economic and demographic factors in our model. Gender, age, household income, educational attainment, citizenship status, Turkish proficiency and occupation are included in the statistical analysis along with the primary control variables.

Results

Table 2
OLS Regression Outputs Predicting the Level of Information

VARIABLES	Model 1	Model 2	Model 3
	Syrians vs Turks Information about COVID-19 Disease	Syrians vs Turks Information about COVID-19 Measures	Syrians Information about COVID-19 Measures
Syrian	-2.220*** (0.319)	-2.160*** (0.270)	
Woman	-0.251 (0.332)	-0.216 (0.271)	0.360 (0.402)
Age	-0.0120 (0.0201)	-0.0127 (0.0157)	-0.05** (0.023)
Occupation (Base: Unem- ployed)			
Housewife	0.363 (0.681)	-0.550 (0.586)	-2.09** (0.919)
Self-employed	-1.220 (0.792)	0.156 (0.697)	-1.612 (1.20)

Employee	-0.611 (0.484)	0.153 (0.392)	0.265 (0.542)
Student	-0.395 (0.463)	-0.674* (0.356)	-1.283** (0.499)
Household Size	-0.337*** (0.130)	-0.264** (0.106)	
Household Income	0.124*** (0.0453)	0.160*** (0.0384)	0.023 (0.0652)
Education Level	0.618*** (0.204)	0.456*** (0.162)	0.790** (0.23)
Citizenship Holder			1.22** (0.50)
Frequency of Watching TV			-0.15 (0.13)
Frequency of Surfing Internet			0.10 (0.125)
NGO Briefing			-0.151 (0.100)
<i>Institutional Briefing</i>			0.044*** (0.11)
<i>Turkish Proficiency</i>			0.04 (0.06)
Constant	49.69*** (1.272)	49.71*** (0.946)	48.90*** (1.464)
Observations	1,203	1,203	429
R-squared	0.102	0.178	0.16

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

We constructed three models indicated in Table 1 to test three hypotheses. Models 1 & 2 illustrate the level of information about COVID-19 and administrative measures across two groups: the host community and the Syrians. The results suggest that being Syrian is significantly associated with a lower level of information both of the disease and the administrative measures (see also Figure 2). In other words, Turks, who have similar socio-economic status with their Syrian counterparts, scored 2.22 higher than the Syrians. As our dependent variable measures the basic knowledge of personal precautions and administrative measures, we can conclude that Syrians are more vulnerable than the host community in preventing the spread of the coronavirus and more likely to face administrative penalties due to lack of information on the official measures. Therefore, we find strong evidence for Hypothesis 1. The results correspond to other researchers' findings on the Turkish (Budak & Bostan, 2020) and foreign contexts (Kananian et al., 2021). Income and education are positively correlated with the level of information, while age and gender do not exert a significant influence. Gender is not a relevant indicator of information level across all models.

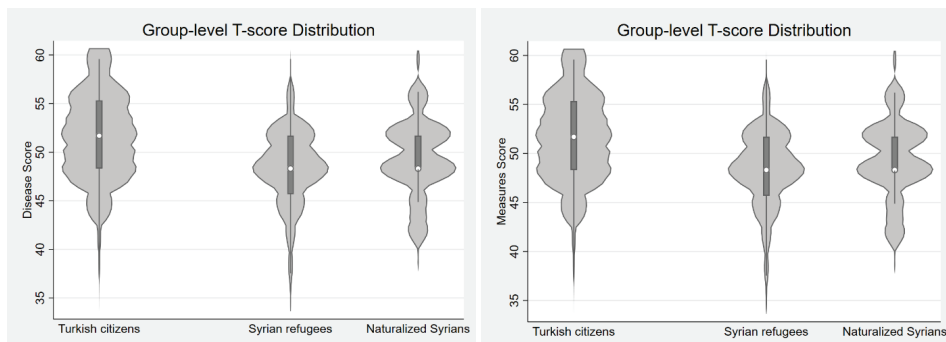


Figure 1. The level of information across groups (T-scores).

In Model 3, we analyzed the Syrians to specify their sources of information, the determinants of their knowledge, and to test Hypothesis 2 and 3. A higher level of education is positively associated with the level of information while age moves in the opposite direction, meaning that older people are less informed about the COVID-19 preventive measures. The result is not surprising considering the generational disadvantage in access to information through digital literacy; however it is alarming due to COVID-19’s high fatality among the elderly. Among the sources of information, the Syrians’ level of information is determined merely by the institutional briefing. In this model, we test Hypothesis 3, and find that the naturalized Syrians are more knowledgeable than the Syrians under temporary protection.

Table 3

The Breakdown of Informative Announcements Made by Institutions in Online Platforms

	Website		Twitter		Facebook		Instagram	
	Turkish	Arabic	Turkish	Arabic	Turkish	Arabic	Turkish	Arabic
Ministry of Health	22	NA	329	NA	188	NA	167	NA
Ministry of Interior	69	NA	90	NA	41	NA	36	NA
Directorate General of Migration Management (DGMM)	1	1	17(8)	NA	21(3)	NA	7	NA

As we observed that following the institutional websites and social accounts makes a difference, we screened institutional announcements in official websites and social media accounts, including any precautionary measure or administrative regulations on COVID-19, between March 11 and May 22, 2020. Two findings are worth discussing. First, none of the institutions except the DGMM website has an Arabic channel, and additionally, none of these actors except DGMM shared any Arabic briefing in their Turkish accounts. Second, the institutional briefing does not systematically keep up with daily/weekly regulations updates. To illustrate, DGMM’s Arabic announcements in the Turkish social media accounts touch on the majority of the COVID-19 measures (i.e., dated March 23 & April 17) only on Twitter while they ignore certain limitations such as mandatory face mask, curfew for people younger than 20 and some of the weekend curfews. Additionally, DGMM’s most active platform, Twitter, did not share any

informative announcement in Arabic between April 23 and May 21 inclusively, during which weekend curfews and bans on mass Iftar gatherings were applied (MoI, 2020a, 2020b).

Discussion

Refugee vulnerability has moved into a new dimension with the outbreak of the COVID-19 pandemic. Poor medical background and psychological disorders (Kurt, Ilkkursun, Javanbakht, Uygun, Karaoglan-Kahilogullari, & Acarturk, 2021), impoverished living conditions due to the difficulty in access to the labor market (Elçi, Kirişçiöğlü, & Üstübici, 2021; Falkenhain, Flick, Hirsland, Naji, & Verlage, 2021; Martuscelli, 2021) and social services, crowded homes (Fouad, Mccall, Ayoub, Abu-raddad, & Mumtaz, 2021), job losses triggered by the pandemic (Nimer & Rottman, 2022), limited access to remote education due to lack of necessary technological devices (Primdahl, Borsch, Verelst, Jervelund, Derluyn, & Skovdal, 2021, pp. 82–83) would exacerbate refugees' vulnerability in the pandemic (Júnior, de Sales, Moreira, Pinheiro, Lima, & Neto, 2020). This study revealed a different facet of the adversity: information vulnerability.

The literature of information and health studies emphasize the access to information and the process of refugees' construction of information landscape in terms of the settlement, social inclusion and integration. However, the pandemic shows that refugees' information resilience should not be regarded merely as a long-term, social capital building issue, but also as a realm of prompt action. The long-term projections of resilient refugees may involve the NGOs, IGOs, the host community as well as the authorities managing the refugee response. However, the official organizations would respond more quickly, efficiently, and widely due to their institutionalized, legalized, and data-dominant capacity in emergencies. In the case of Syrians in Turkey, institutional involvement is essential for two reasons: public health in general and alleviating the Syrians' fragility in particular. Considering that Syrians comprise nearly 5% of Turkey's population, the refugees' vulnerability would pose a threat to public health, and this may end up with more exclusionary, discriminatory perception towards the refugees (see United Nations Coordinated Appeal, 2020, p. 32) in addition to the deadly consequences. Thus, the implications of the refugees' access to information exceed the boundaries of a particular community. Secondly, the refugees' lack of information generates medical and administrative drawbacks. The existing fragility due to life conditions and medical background is likely to aggravate the severe impacts of COVID-19 on refugees. Furthermore, administrative fines for violating the COVID-19 regulations would produce an extra financial burden for refugees, who already face economic challenges and relapse with unpaid leaves and dismissals in the pandemic. "The provision of relevant and quality information is one critical form of assistance that must be made available and accessible to these individuals" (Kosciejew, 2019, p. 94). While the diversity of the source of information is valuable for cross-checking the reliability of information under usual conditions, the possibility of misinformation circulation among a group in an emergency may produce greater vulnerability. To eliminate the flow of misinformation among refugees, the authorized institutions, which issue the regulations, decide on the protective measures, or manage the refugee response, should be active in the process of information acquisition.

Several points regarding the statistical outputs are worth mentioning. We observed that a higher level of education is associated with a higher level of information within and across groups. It should be noted that the education level among refugees is low, with 26.5% of the population having no formal education (Erdoğan, 2021, p. 68). Due to the online sampling technique, this research is more likely to underrepresent the undereducated population. Thus, the refugees' vulnerability to COVID-19 would be more burdensome than our measurement as a result of the possible difficulty in accessing the technological tools. Secondly, the NGOs and IGOs have responded successfully to the Syrian refugee inflow in Turkey (Sunata & Tosun, 2019). We expected to recognize the impact of NGOs/IGOs as a determinant of the level of information, but failed to observe a meaningful effect.

Conclusion

We sought to answer the following empirical question: Are refugees more vulnerable to COVID-19 than the host community? We conclude that refugees are more vulnerable to the pandemic due to their level of information on COVID-19 protective measures and administrative regulations compared with the host community. We find that the official announcements and briefings partially increase the Syrians' level of information. The archival screening of the institutional websites and social media accounts indicated that the authorized institutions share limited and unsystematic information regarding the protective measures and administrative penalties. The statistical analysis demonstrated that Syrians receive information from the institutional announcements in general. Additionally, we did obtain a statistical difference in the level of information between the Syrians who are under temporary protection and those who have acquired citizenship.

The role of NGOs and IGOs is also negligible in the pandemic process concerning the fostering Syrians' knowledge on COVID-19. Based on these results, the study also has a policy-oriented nature. Our recommendations for the decision-makers are twofold: first, the official institutions should bear the responsibility and provide refugees with more information, especially in their native language; second, NGOs and IGOs (i.e., UNHCR), which have an extensive, well-trained field staff, should collaborate for the dissemination of information for those who do not have access to the internet, TV or any technological tool. This would facilitate the short and long-term information resilience of refugees.

To the best of our knowledge, this research is one of the first attempts in the literature to reveal the relationship between the refugees' information level and the institutional briefing (see also Healey, Ghafournia, Massey, Andrich, Harrison, Taylor, & Bolsewicz, 2022). Further research is needed to cover a nationally/regionally representative sample with the inclusion of hard-to-reach groups, which we failed to reach in online platforms. In future studies, focus groups or in-depth interviews would uncover why other sources of information (i. e. NGOs) do not enhance the refugees' level of information. In addition, the relationship between the information and source of information can be studied through experimental research design in the future to measure if refugees trust more in institutions rather than other sources. Last but not least, discovering the causal mechanism between naturalization and the level of access to information may shed light on the significance of citizenship status and the integration process.

1. The MoH website does not provide backdated announcements, thus the figure covers only the news. The Municipality's Tweets are available only after April 7. The figures in parenthesis indicate the number of Arabic announcements in the Turkish accounts. The figures in the Turkish accounts show total number of announcements in all languages (i.e. English, Russian, etc.).

Peer-review: Externally peer-reviewed.

Conflict of Interest: The authors have no conflict of interest to declare.

Grant Support: The authors declared that this study has received no financial support.

Author Contributions: Conception/Design of study: B.A., M.İ.Ö.; Data Acquisition: B.A., M.İ.Ö.; Data Analysis/ Interpretation: B.A., M.İ.Ö.; Drafting Manuscript: B.A., M.İ.Ö.; Critical Revision of Manuscript: B.A., M.İ.Ö.; Final Approval and Accountability: B.A., M.İ.Ö.

Acknowledgements: We would like to thank Musallam Abedtalas, Sedef Turper-Alışık, Ayşegül Komsuoğlu-Çıtırptıoğlu and Raycene Nevils Karakeçi for their valuable feedback, Dawoud Almohammad for his support in the dissemination of the survey and outreach efforts.

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APPENDIX

Measurement of Level of Information
Precautionary Measures
Some symptoms of the disease are high fever, shortness of breath and cough.
Coronavirus can be transmitted during a sneeze.
Washing hands with water is sufficient to protect against the virus.
The coronavirus has the same survival time on metal, plastic or cotton made goods.
People who look healthy may be carrying and spreading the virus.
Only coronavirus patients should wear a face mask.
Administrative Measures
People over the age of 65 and under 20 are banned from going outside except the specified times.
Visiting relatives is prohibited.
Permission must be obtained for entry to and exit from all cities as part of the coronavirus measures.
People with heart disease, blood pressure sickness or diabetes are allowed to go out except Saturdays and Sundays.
It is mandatory by law to wear a face mask in places such as parks, bazaars and markets.
The sale of masks is allowed in pharmacies and markets.

