

Stigma toward healthcare providers from patients during COVID-19 era in Jordan

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Abstract

Aim: This study aimed to explore healthcare providers' (HCP) stigmatization from patients during the COVID-19 outbreak in Jordan.

Method: A cross-sectional design was used. Data collection was conducted between May and July 2021. The research questionnaire included demographic information about participants and multiple statements that reflect stigma of participants toward HCPs. Regression analysis was conducted to assess the association between stigma and explanatory variables.

Results: A total of 777 surveys were included in the study. Many people show high stigma toward HCPs during COVID-19 pandemic. Various factors including hearing news all time ($p < .001$), having children ($p < .024$), and smoking ($p < .001$) were significant in prediction stigma toward HCPs.

Conclusion: This one of few studies conducted in Jordan regarding the stigma toward HCP from other people with chronic diseases. Our study found that many people showed some stigma toward HCP during COVID-19. Stigmatization of HCP related to a pandemic is a lesson most people have not learned. It is not enough to cheer HCPs. A clear, sensible public education campaign about the public's risks by interacting with HCP is necessary.

KEYWORDS

COVID-19, healthcare provider, Jordan, patients, stigma

1 | INTRODUCTION

Experiencing stigmatization can be very stressful. According to Bagchi (2020) and Taylor (2019), healthcare providers (HCPs) often experience stigmatization by an individual within their communities during infectious disease outbreaks. Due to their constant interactions with the disease, people start to fear, avoid, shun, or ostracize HCPs due to the belief that they are a potential source of infection (Abuhammad et al., 2021). The outbreak of severe acute respiratory syndrome (SARS) in 2003 is a perfect example. Various studies conducted in Hong Kong and Taiwan revealed that 20–50% of HCPs who were in close

contact with SARS patients stated that they had experienced stigmatization by people within the community, and several feared that they could be infected with the SARS coronavirus (Bai et al., 2004; Koh et al., 2005). The research conducted by Bai et al. (2004) revealed that the families of HCPs experienced discrimination. Various scholars have reported that stigmatization leads to an unnecessary burden on HCP's lives and burnout (Lai et al., 2020; Ramaci et al., 2020). HCPs have been considered heroes by the media and government during the Covid-19 pandemic (Abuhammad, AlAzzam, Mukattash, 2021). It has become a worldwide ritual for people to congratulate and applaud HCPs for their service. It is important to note that acknowledging the HCPs service



does not automatically do away with people's discriminatory attitudes towards HCPs due to the widespread fear that they are SARS-CoV-2 carriers. This issue has not been studied systematically. Therefore, this study aimed to examine the prevalence and factors that influence the stigmatization toward HCPs during the Covid-19 pandemic. One focus of the current study was to determine the prevalence of the stigma-related belief that HCPs are sources of infection and to determine the correlates of such attitudes.

The fear of COVID-19 and its associated outcomes resulted in the development of COVID Stress Syndrome (Abuhammad et al., 2020). This syndrome comprises three fundamental aspects. First, people fear that Covid-19 is life-threatening alongside the fear of meeting potentially contaminated surfaces. Second is the fear about the impact of COVID-19 on the socio-economic status of individuals (Abuhammad et al., 2020). Lastly, people have xenophobic fears that people who get into the country from foreign countries are sources of infection (Taylor, Landry, Paluszek et al., 2020a; Taylor, Landry, Rachor et al., 2020b). These fears are related and are associated with seeking reassurance and thoughts and nightmares related to the virus (Taylor, Landry, Paluszek et al., 2020a; Taylor, Landry, Rachor et al., 2020b). As a result, it is expected that stigmatizing attitudes related to HCP, such as beliefs that healthcare providers are sources of covid-19, would have a positive relationship with the COVID Stress Syndrome. In the case that the assumption is true, then it can also be predicted that HCP-related stigmatizing attitudes caused by fear and the avoidance of HCPs are associated with other forms of avoidance during the pandemic, such as not leaving home, avoiding other people, and avoiding essential store like drug stores and supermarkets due to the fear of interacting with possibly infected people in these places. The researcher was also fascinated by the question of whether the daily applauding of the HCPs has any significant relationship with the stigmatization of HCP. The question of interest was: Do encouraging people to applaud HCPs reduce stigmatization? If the answer to the question is yes, then the two should have a negative correlation. However, there might be a negative correlation between the two as people might applaud HCPs from the safety of their homes while at the same time viewing HCP as sources of infection. This would show that people have a negative attitude toward HCPs. Clearly, HCPs are primarily at the frontline among people and groups that are susceptible to infection. As a result, reports on fears from communicating with HCPs have been made in Egypt and around the world (Abdelhafiz & Alorabi, 2020). For example, reports have been made concerning taxi drivers refusing to drive medical doctors, residents refused to have healthcare providers as their neighbors, and restaurants have shunned away from delivering food to hospitals (Abdelhafiz & Alorabi, 2020; Abuhammad et al., 2020).

Over 75% of Egyptian physicians who participated in the Covid-19 related burnout study revealed that healthcare professionals are experiencing stigmatization linked to harassment by families of patients resulting in different burnout dimensions (Abdelhafiz & Alorabi, 2020). WHO released a document about mental health and psychosocial consideration during the pandemic, which identified this type of stigma and reported strategies on methods that would help healthcare providers to handle this form of stigma (WHO, 2020). The incidents of stigma

among HCPs collectively point to a potentially concealed threat which can result in underreporting of cases, fear to seek medical care and assistance, and the negative impact it has on the emotional and mental health of groups experiencing stigmatization. Up to our knowledge, limited information exists about stigma associated with COVID-19 among HCPs. Thus, the primary objective of this study was to assess HCPs stigmatization during the COVID-19 outbreak in Jordan.

2 | METHODS

2.1 | Study design and setting

This study is a cross-sectional and survey-based study carried out in Jordan between May and July 2021. To calculate the ideal sample size, the researcher used the G*Power software version 3.1.92. The researcher used a power of 0.95, a significance level of 0.05, and the 11th variable alongside a medium effect size of 0.20. As a result, the researcher obtained 700 as the minimum number of participants to include in the study. However, due to the low response rate of electronic surveys, 1000 surveys were sent.

The researcher contacted 1000 potential participants who are 18 years or older, understand Arabic, and had a chronic disease such as diabetes or hypertension. A Flyer was sent to each participant by Google forms. The researchers invited and sent surveys to the participants through email, WhatsApp, and other online media. Approximately 790 surveys were received back. However, 13 of the received survey responses were excluded from the study due to missing data. Therefore, 777 surveys were included in the final analysis. After agreeing to participate in the study, the participants were requested to provide their demographic information, after which questions that were to be answered sequentially appeared. The demographic factors included in the survey were religion, career, domicile, education, gender, and residential area.

2.2 | Ethical consideration

This study was approved by the institutional ethics committee of Jordan University of Science and Technology. The researchers were assured the participants that participation is voluntary, and no risks will be from participating in the study. To protect the anonymity of the participants, no information regarding ID of the participants were included.

2.3 | Study instrument

The degree of devaluation and discrimination that affected individuals infected with COVID-19 infection was measured using the COVID-19 stigma measures. The self-administered questionnaire used was developed by See et al (2009). and aims to gather data on discrimination attitudes and fear towards people who have been infected or exposed to

the virus. The questionnaire had three aspects; acceptance of COVID-19 previous infected and individuals exposed to the virus, discrimination, and fear. The coefficient alpha for fear was 0.72, for discrimination was 0.83 and for acceptance was 0.56. The questionnaire allowed the respondents to choose between yes (2 points) and no (1 point) answers. The author adapted and translated the questionnaire. The translated instrument was distributed and checked by five experts from pharmacy and nursing faculties. All items were clear and without errors. Then, the study instrument was tested among 20 patients and these patients were excluded from the main sample. The authors asked the patients for the clarity of the instrument. The instrument was found valid and measure what it supposed to measure. The Cronbach alpha of the scale was 0.87.

2.4 | Statistical analysis

Descriptive data are primarily presented as counts and percentages. The results concerning stigma toward HCPs were expressed as percentages of responders who agreed/disagreed with each statement. Multiple regressions test was used to determine predictors of stigma toward healthcare workers. Analysis was conducted using SPSS version 25.

3 | RESULTS

3.1 | Demographic variables

The response rate was 78%. More than half of participants were females (58.5%) and married (61%) (Table 1). The age mean was 34.5 and SD = 8.8

3.2 | Response for patients regarding stigma toward HCPs during COVID-19 era

Many people show high stigma toward HCPs. The following statements about HCPs stigmatization showed about 50% agreement by participants. These items are healthcare workers who work in hospitals are more likely to have COVID-19 (53%); for the safety of the community, health care workers should not go out in public (57.2%); and healthcare workers who treat people with COVID-19 should be isolated (48%) (Table 2).

3.3 | Predictors for stigma toward HCPs

The multiple regression model was significant ($F = 8.89, p < .001$) which means many variables may predict the stigma toward HCPs. These factors were hearing news all time ($B = 0.194, p < .001$), having children ($B = 0.06, p < .024$), and smoking ($B = 0.105, p < .001$). All other factors were not significant in predicting the stigma toward HCPs (Table 3).

4 | DISCUSSION

Widespread stigmatizing attitudes and under-recognition of HCPs are hidden behind the façade of HCP applauding. Our study reveals that several patients within the community perceive that healthcare providers are carriers of COVID-19. Approximately 53 of the respondents believe that HCPs are highly likely to be infected with COVID-19. This finding is in contract with COVID-19 research, which showed that HCP has lower chances of contracting the disease. The data collected from February to July 2021 indicated that HCPs were not part of the approximately 89 of reported COVID-19 cases (CDC COVID-19 Response Team, 2020).

Similarly, research conducted in Canada reported that HCP, regardless of whether they care for COVID-19 patients or not, has a low risk of 0.14 of contracting the virus compared to 0.10 in the general population (Scientific Advisory Group, 2020). According to the Scientific Advisory Group (2020), the high prevalence of COVID-19 infection (15 vs. 3) was partly due to the high number of Covid-19 testing among HCPs compared to non-healthcare providers. HCP had a risk level of 0.01 of being explicitly infected due to their occupation. This finding is consistent with a study conducted in the Netherlands. The study found high chances of HCPs contracting COVID-19 from the community compared to within healthcare settings such as hospitals (Kluytmans-van den Bergh et al., 2020). It implies that HCPs have higher chances of being infected in the community just like individuals, not in healthcare-related professions. Therefore, our finding of this study with the attitudes of about half of the study participants who believe that HCP should have minimal to no contact with the family or community lack a sound basis.

The risk of HCPs contacting the virus is higher in a global context compared to an individual not working in a health-related field (Koh, 2020). Despite this, approximately 96 of HCPs have not contracted the virus (Scientific Advisory Group, 2020). Also, despite working with COVID-19 patients in various care settings such as the intensive care units (ICU), HCPs are greatly exposed to the virus. As a result, they have access to adequate personal protective gear such as visors, gloves, and face masks, reducing their chances of infections (Liu et al., 2020). For instance, in Wuhan, China (January to February 2020), the COVID-19 incidence rate among the frontline workers was 0.05 (Lai et al., 2020). It means that a significant proportion of HCPs (99.45) did not contract the virus even in high-risk environments such as the ICU. According to Cheng et al. (2020), the low rate of infection is reassuring because it demonstrates that the availability of protection equipment provides protection to frontline HCPs and enables them to care for COVID-19 patients effectively. Despite the experience and high risk of infection compared to the public, no government or health authority recommends isolating HCPs from their families of the community during the pandemic. Besides, such stringent measures would result in unnecessary stress experienced by HCPs. Our study found that many participants believe that HCP should be isolated. Similarly, a study with Americans and Canadians found that many people believe in HCPs' isolation to the extent that they believe HCPs should not access their families. This study tried to identify the reasons for these unrealistic

TABLE 1 Demographic and characteristic of study participants (N = 777)

Variable	Category	N	%
Gender	Male	322	41.5
	Female	455	58.5
Insurance	No	178	22.9
	Yes	598	77.0
Nationality	Jordanian	753	96.9
	Others	23	3.0
Marital status	Single	280	36.0
	Married	474	61.0
	Divorced	23	3.0
Living area	City	524	67.4
	Village	252	32.4
Smoking	No	543	69.9
	Yes	233	30.0
Working	Government	310	39.9
	Private	466	60.0
How many times hearing news	Never	142	18.3
	Rarely	224	28.8
	Sometimes	201	25.9
	Usually	210	27.0
Degree	Less Than Diploma	110	14.2
	Diploma	81	10.4
	Undergraduate Student	91	11.7
	Associate degree	100	12.9
	Bachelor	303	39.0
	High Degree	92	11.8
Health Status	Bad	207	26.6
	Fair	314	40.4
	Good	156	20.1
	very good	37	4.8
	Excellent	63	8.1
Watching news	Never	132	17
	Rare	163	21
	Sometime	233	30
	Always	240	31
Income (JDs)	Less Than 400	427	55.0
	400 To 600	213	27.4
	600 To 800	80	10.3

attitudes (Lynch et al., 2020). Several people witnessed deaths within their communities during the 1918 influenza pandemic. The sight of hearses, funerals, and coffins became a common occurrence within the community (Crosby, 2003). However, this is not the case during the COVID-19 pandemic, as exposure to death and sickness has only been experienced, for several people, through media than personal experience (Abuhammad et al., 2020; Abuhammad, Alzoubi, Khabour, 2021).

There was no relationship between HCP stigmatization and number of times of access COVID-19 and resources ($r = 0.02, p > .10$). As argued by Taylor (2019), exposure to fatality images by news media and dramatic news images of sick and dying HCPs can make the public overestimate the personal infection risks. Several individuals in this study held unrealistic attitudes of the dangers of being in contact with an HCP. This study presents evidence that HCP fear and avoidance among the public is part of the larger stigmatization pattern. It implies that

TABLE 2 Stigma toward HCPs from patients during COVID-19 era

Items	strongly disagree		disagree		Neutral		agree		Strongly agree	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
1. Healthcare workers who work in hospitals are more likely to have COVID-19	18	2.3	93	12.0	255	32.8	204	26.3	207	26.6
2. For the safety of the community, health care workers should not go out in public	88	11.3	170	21.9	151	19.4	189	24.3	178	22.9
3. There should be some restrictions on the movement of health care workers	99	12.7	147	18.9	187	24.1	177	22.8	167	21.5
4. Healthcare workers who treat people with COVID-19 should be isolated	81	10.4	155	19.9	171	22.0	147	18.9	223	28.7
5. I don't want to be near healthcare workers who treat COVID-19 patients.	99	12.7	150	19.3	173	22.3	157	20.2	198	25.5
6. I don't want to be with someone who works in health care in general.	165	21.2	221	28.4	138	17.8	128	16.5	125	16.1
7. Health care workers treating people with COVID-19 must be separated from their families	137	17.6	139	17.9	168	21.6	153	19.7	180	23.2
8. I will not be comfortable visiting a health care worker for medical reasons	112	14.4	193	24.8	179	23.0	148	19.0	145	18.7
9.. I will be worried about infection with COVID-19 by health staff	78	10.0	152	19.6	194	25.0	157	20.2	196	25.2

TABLE 3 Predictors of stigma toward HCPs from Patients during COVID-19 era

Model B	Unstandardized Coefficients			t	Sig.	95.0% Confidence Interval for B	
	Std. error	Beta	Standardized Coefficients			Lower bound	Upper bound
(Constant)	21.764	3.864		5.633	.000	14.180	29.349
Age of women (Continuous variable)	.043	.030	.071	1.429	.153	-.016	.101
Gender(Female vs. male)	.619	.708	.033	.875	.382	-.770	2.008
Nationality (Jordanian or others)	-1.086	1.755	-.022	-.619	.536	-4.530	2.359
Working or not	1.333	.712	.071	1.872	.062	-.065	2.731
Income (JD)	-.247	.413	-.025	-.598	.550	-1.057	.563
Marriage (Single vs. married)	-.203	.802	-.012	-.253	.800	-1.778	1.372
Living (City vs. village)	.573	.714	.029	.802	.423	-.829	1.975
Academic	-.066	.233	-.012	-.284	.776	-.524	.391
Smoking (yes vs. no)	2.414	.748	.120	3.225	.001	.944	3.883
Having Insurance (yes vs. no)	.203	.818	.009	.248	.805	-1.403	1.808
How many times hear news (never, rarely, sometimes, usually)	-.679	.304	-.078	-2.234	.026	-1.276	-.082
Having Children (yes vs. no)	.821	.159	.250	5.177	.000	.510	1.133

those who stigmatize HCP also stigmatize foreigners and avoid drug stores and retail staff working in these stores. However, the breadth and boundary of fear and avoidance need further investigation. People who have higher levels of HCP fear and avoidance also avoid other groups of people as they fear these groups of people, such as children and people who look sick, because they believe they are carriers of the virus (Abuhammad et al., 2020). Previous studies on perceived vulnerability to disease have revealed that individuals with high levels of fear of infection even stigmatize those who remotely possess features that suggest ill health, such as disabled, obese, and older people (Schaller & Park, 2011). Also, a recent investigation among health-care workers in Indonesia documented that a 21.9% of the providers experienced stigmatization because of COVID-19 (PMID: 33762053).

4.1 | Factors that predict stigma during COVID-19 outbreak

Our study found that hearing news all time, having children, and smoking were significant predictors of stigma toward HCPs. Similarly, a study found that factors that predict the stigmatization of people infected with COVID-19 include residential area, income, and downloaded an app that traces COVID-19 cases (Abuhammad et al., 2020). Although this is the first known study that examines stigma during a pandemic, Kelly et al., 2019 investigated the predictors among pandemic survivors. The study revealed that people between the age of 20 and 49 and those with higher education were at a higher risk of experiencing stigma regardless of their culture and country of origin. A reasonable explanation for this is the lack of information about new infectious diseases and how to control the situation. It has been uncommon for most countries to experience large-scale disease outbreaks that are severe. The dissemination of health information in the most accurate way through new media can effectively solve the problem.

4.2 | Study implications

The implication of this study is that most HCPs have experienced stigmatization at the workplace from their colleagues and peers. In specific, the number of individuals who felt appreciated was lower than the number in the community. Therefore, organizations should use more anti-stigma measures, promote positive role models, reduce uncertainties and perceived discrimination, and actively implement programs that reduce opportunities for organizational and interpersonal stress (Abuhammad et al., 2019). It is also recommended that changes in procedures or routines are explicitly explained before implementation and that organizational departments work as a team. Besides, healthcare organizations such as hospitals should focus on upholding standards of care for all patients and ensure routine patients received equally quality care (Abuhammad et al., 2022). All these should be a component of organizational planning during a pandemic. Taylor (2019) noted that ostracism, avoidance, and shunning have been common during past

outbreaks and pandemics such as the SARS outbreak. Pandemic historians have identified that political leaders, survivors, and public health officials often forget lessons derived from past pandemics (Crosby, 2003). Stigmatization of HCP related to a pandemic is a lesson most people have not learned. It is not enough to cheer HCP. A clear, sensible public education campaign about the public's risks by interacting with HCP is necessary (Bhaumik et al., 2020).

4.3 | Limitations and strengths

Although the current study is one first systematic investigation to examine the stigmatization of HCPs during the COVID-10 pandemic, it has various strengths and limitations. One of the strengths of this study is the large sample size and the researcher's knowledge. The study limitation is that the study was cross-sectional research. The study was carried out several months into the pandemic. As a result, there is a possibility that the attitude and behaviors of the study participants may change.

Besides, the assessment was limited to self-reported attitudes and behavior provided by the study participants instead of observational evaluations of individual behaviors. However, the findings of this study are consistent with other studies conducted before COVID-19 pandemic (Bai et al., 2004; Koh et al., 2005). More research is needed to investigate the largely unrecognized and under-valued problem of HCP stigmatization. There are various areas that future research may consider. One of these areas is the evaluation of the generalizability of this study's findings. Also, further research may be needed to ascertain if the findings can be replicated using different methods that measure stigmatization. While considering alternative methods, the methods can be used to evaluate the estimations of the odds presented by the respondents indicating that HCP is highly likely to be infected with COVID-19.

5 | CONCLUSION

In summary, this one of few studies conducted in Jordan regarding the stigma toward HCP from other people with chronic diseases. Our study found that many patients showed some stigma toward HCP during COVID-19. There are many factors may predict this type of stigma such as being smoker and hearing news all the time. Stigmatization of HCP related to a pandemic is a lesson most people have not learned. Adequate education to minimize HCPs risk of stigmatization is necessary.

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AUTHOR CONTRIBUTION

All authors were contributed to this paper.

CONFLICT OF INTEREST

No conflict of interest.

DATA AVAILABILITY STATEMENT

Data will be available upon request for reasonable reason.

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