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Research Article

Stigma towards Chronically Ill Patients among Healthcare Workers Caring for COVID-19 Patients during the Outbreak in Jordan

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Objectives. This study aims to examine the stigma among HCWs towards chronically ill patients and to determine the predictors of stigma among HCWs for these patients. *Methods.* This was a cross-sectional study that was conducted among HCWs in Jordan. The HCWs included in the study were all above the age of 18 years and were involved with the care of COVID-19 patients. An anonymous online survey was disseminated to participants and included questions about demographic and work characteristics. Stigma was assessed based on a modified stigma-related questionnaire for COVID-19 patients. *Results.* A total of 686 surveys were collected and analyzed. The prevalence of stigma among HCWs towards chronic patients was 20%. Years of experience ($B = -0.157$ and $P = 0.017$) and number of children for HCWs ($B = 0.149$ and $P = 0.016$) are considered predictors for stigma towards chronic ill patients. As the years of experience increase, the stigma level decreases. Also, HCWs with more children show more stigma towards chronic illness patients. Moreover, there are no differences between HCWs from different specialties in stigma towards chronically ill patients. *Conclusion and Implication.* The findings of this study show some type of stigma towards patients with chronic disease by HCWs during the COVID-19 pandemic. Overall, the present study may highlight the needs to develop an intervention that minimizes stigmatization and provides psychosocial support to HCWs.

1. Introduction

The COVID-19 pandemic led to significant changes in the working environment and job demand of healthcare workers (HCWs) [1–3]. It resulted in more pressure in the workplace, an unfavorable physical working environment, and made interactions emotionally demanding [2, 4, 5]. As a result, it became very difficult for HCWs to provide care. Some of the themes for HCW that came up include stress, uncertainty, and stigmatization [6–8]. HCWs often experienced complicated and conflicting thoughts and feelings about balancing their roles and as parents [9, 10]. They feel they have a professional responsibility but fear the disease and the guilt of exposing their families if they contract the disease while responding to emergencies such as Ebola and COVID-19 [6, 11]. Working with chronically ill patients (people who experienced chronic disease such as diabetes mellitus (DM) and hypertension (HTN)) resulted in considerable stigmatization since these people had a very weak immunity system exposed to more threat compared to other type of patients [11]. Contagion is associated with different forms of attitudes, stigma, stereotypes, prejudices, and

beliefs. During these situations, an individual's emotions play an essential role in altering [12] conscious choices or choices made based on facts [5, 13].

The duty of healthcare providers often contradicts their responsibilities to their patients and their attitudes due to the infection [10, 14]. It can sometimes result in prejudice against people who are considered as "plague spreaders" [15, 16]. However, the fear of getting infected overrides positive emotions making it difficult to manage contact with infected people or people for their test results [17, 18]. The most expressible reaction is fear, which is very important for human survival and self-defense. However, if the fear is expressed at a high level, it will impact the immunity and ability of providing care among people and HCWs. An acceptable level of fear can make HCWs provide substantial care to patients than the quality of care they would have provided in a normal situation [15, 19]. Healthcare organizations and the government should recognize and acknowledge the impact of working in an infectious environment and potentially infectious patients [6, 14]. It is necessary to understand the impacts of stigma in relation to HCWs' exposure to the pandemic, job demand, and self-esteem and how they influence HCWs' outcomes [1, 20].

It is, therefore, important to explore whether the variables can result in changes in the quality life of HCWs' professional life and burnout, compassion satisfaction, and compassion fatigue among healthcare workers. The contribution of contextual variables such as the role, position, type of organization, and years of experience should be hypothesized. Stigma and discrimination tend to exist in the long run after the end of quarantine and containment of the pandemic [6, 19]. Human resource management (HRM) can provide support to reduce HCW stigma and stress caused by high workloads and performing unfamiliar tasks towards chronically ill patients. Other important tools that can help fight HCW burnout and social stigmas include systematic training, network meetings, and counseling [2, 21]. The researchers conducted this study to get more attention to the degree of stigma among HCWs during a pandemic, and this could apply to future pandemics. This study aims to examine the stigma among HCWs towards chronically ill patients and to determine the predictors of stigma among HCWs for these patients.

2. Methods

2.1. Study Design.
This study included 686 HCWs involved in COVID-19 diagnosis and treatment in general hospitals in Jordan that were recruited using social platforms such as Facebook, Twitter, and other types of social media. This study used the convenience sampling method. The study began on May 2021 and ended on July 3, 2021. The research participants practiced in various internal medicine, infectious wards, and intensive care units (ICUs). The sample comprised different professionals, including nurses, physicians, medical residents, pharmacists, and medical technicians. Some of the research participants were in the frontline, while others were indirectly involved with the care of COVID-19 patients. The HCWs worked either full- or part-time in the hospital. The questionnaire was emailed to the respondents online, and they were asked to complete it.

The respondents volunteered to take part in the study. The participants were informed by the researchers that they may withdraw from the study at any moment.

2.2. Inclusion and Exclusion Criteria.
The HCWs included in the study were all above the age of 18 years. All participants were involved with the care of COVID-19 patients and not only participants involved in the care of COVID-19 patients but also those dealing with chronic illnesses such as diabetes (DM) and hypertension (HTN) and worked either full time or part time. Besides, the participants were present at the hospital during daily shifts, night shifts, or on rotations and, when willing, entered the research project.

2.3. Data Collection.
Demographic information of the participants such as occupation, gender, age, employment status, education level, and type of contact with COVID-19 patients was collected using Google Forms that were distributed online. Data on the perception of stigma among HCWs were collected from a questionnaire that used the COVID-19 Stigma Scale.

2.4. Procedure.
Several hospitals in Jordan included in this study are all covered by the Ministry of Health. The province in which the study was conducted is a province with the highest number of people in Jordan. The researchers evaluated HCWs working in ICUs, infectious wards, and internal medicine wards.

2.5. Participant Selection.
Thousands of surveys were sent to HCWs. The response rate was 68.6%, and the total number of questionnaires evaluated was 686. The participants entered the study voluntarily as the researchers used a convenience sampling method. Different items had several missing data related to incomplete answers provided by the participants.

2.6. The Perception of Stigma.
The questionnaire adopted from the COVID-19 Stigma Scale [20] focused on determining the experiences and feelings of HCWs during the COVID-19 outbreak. This instrument was used to measure stigma among HCWs towards HIV patients. This instrument was validated by the authors of this study to measure stigma towards chronically ill patients from HCWs. Some studies used the theoretical domains to evaluate the status of the perceptions of stigma among the participants. Other factors that are often considered include shame, social isolation, discrimination, and status. However, questionnaires related to the perception of stigma associated with another disease can also be used. The study used a 12-item modified stigma-related questionnaire for COVID-19 patients. This tool consists of the following three aspects: discrimination, acceptance of COVID-19 previously infected, and fear [20]. The questionnaire adopted the 4-point Likert scale. The internal consistency of the first two subscales of discrimination and acceptance of COVID-19 risk people was good with Cronbach's alpha of 0.82 and 0.81, while the third subscale was 0.68, which is acceptable.

The questionnaire was translated into Arabic language, which was further evaluated for validity and reliability after the translation that was conducted by five experts in the area. The instrument was translated to facilitate the participants' understanding of the survey. All items had a Cronbach's coefficient of 0.75. The participants answered the questionnaire by choosing one of the available four options which include "strongly disagree," "disagree," "agree," and "strongly agree."

2.7. Ethical Consideration. This study was approved by the Institutional Ethics Committee at Jordan University of Science and Technology IRB (810-2020). The researchers assured the participants that participation is voluntary and no risks will be there from participating in the study. To protect the anonymity of the participants, no information regarding ID of the participants was included. The participants signed electronic consent online.

2.8. Data Analysis. The Statistical Package for the Social Sciences version 25 was used for all statistical analyses (IBM, Armonk, NY, USA). The results of the descriptive and bivariate analyses were deemed significant based on an alpha level of less than 0.05. The Kolmogorov–Smirnov test was used to test for the normality of all continuous variables. Any discrepant variables were transformed into more distributed scores. The subjects' responses were evaluated for each variable (measure). If each variable had 40% or more missing data, then the participants' responses for that measure were deleted listwise. The multiple regression test was used to determine the predictors of HCWs stigma towards patients with chronic illnesses. This test was done after careful determination of the variant inflation factor (VIF) to determine the multicollinearity among variables.

3. Results

3.1. Demographic Variables. The number of females was 424 (61.8%), and the number of males was 262 (38.2%). The majority were nonsmokers (74.8%), and a quarter were medical doctors (25.7%). About two-thirds of participants had working experience of less than 5 years (63%). Other characteristics are listed in Table 1.

3.2. Description of Stigma towards Chronic Patients. The data showed that HCWs showed some type of stigma against patients. The prevalence of stigma (who agree or strongly agree) among HCWs towards chronic patients was 20%. This presents agree and strongly agree with HCWs. The range of stigma among HCWs was 12–44. The following statements showed high levels of stigma by HCWs. You are not against patient care, but it is better for you not to approach them (51.3%), the best way to prevent COVID-19 infection is to avoid any contact with sick people (33.6%), and if you can choose, you do not want to deal with any patient (24.2%) (see Table 2).

TABLE 1: Demographic and work characteristics of the study participants ($N = 686$).

Variables	Category	N	%
Gender	Male	262	38.2
	Female	424	61.8
Nature of work	Clinical practice	596	86.9
	Administration	39	5.7
	Education	51	7.4
Nationality	Jordanian	640	93.3
	Others	46	6.7
Marital status	Single	384	56.0
	Married	284	41.4
	Divorced	18	2.6
Experience	1 to 5 years	432	63.0
	6 to 10	85	12.4
	More than 10	169	24.6
Living area	City	533	77.7
	Village	153	22.3
Insurance	No	170	24.8
	Yes	516	75.2
Smoking	No	513	74.8
	Yes	173	25.2
Working	Government	274	39.9
	Private	412	60.1
How many times hearing news	Never	140	20.4
	Rarely	185	27.0
	Sometimes	156	22.7
	Usually	205	29.9
Degree	Diploma	85	12.4
	Bachelor	507	73.9
	Master	77	11.2
	Doctorate	17	2.5
Type of work	Resident	147	21.4
	Specialist	23	3.4
	Consultant	6	0.9
	Dental	44	6.4
	Nursing	137	20.0
	Pharmacy	235	34.3
	Allied health	94	13.7
Income (JDs)	Less than 700	385	56.1
	700 to 1500	231	33.7
	More than 1500	70	10.2

3.3. Comparison on Stigma between Participants From Different Specialties. The results showed no significant difference in stigma between people from different specialties ($F = 1.9$ and $P = 0.073$), which means that nurses are not different from people from different specialties.

3.4. Predictors of Stigma towards Chronic Patients from HCWs. The multiple regression model was significant ($F = 1.75$ and $P = 0.04$). This means that many factors were able to predict stigma towards patients from HCWs. These factors were years of experience ($B = -0.157$ and $P = 0.017$) and number of children for HCWs ($B = 0.149$ and $P = 0.016$). As the years of experience increases, the stigma level decreases. Also, HCWs with more children show more stigma towards chronic illness patients (see Table 3).

TABLE 2: Stigma towards chronic patients ($n = 686$).

Items	Strongly disagree		Disagree		Agree		Strongly agree	
	Count	Row N (%)	Count	Row N (%)	Count	Row N (%)	Count	Row N (%)
(1) You feel that it is useless to serve any patient because of accidents, fault of others, quarrels, etc.	424	61.8	186	27.1	55	8.0	21	3.1
(2) You feel that it is pointless to be at the service of patients with chronic diseases who are more vulnerable to infection with the COVID-19 virus	513	74.8	122	17.8	38	5.5	13	1.9
(3) You think that it is not worth caring for the sick because you may feel that they are carrying the virus	476	69.4	153	22.3	39	5.7	18	2.6
(4) You feel it is pointless to be of service to patients	535	78.0	115	16.8	21	3.1	15	2.2
(5) When a patient asks you for help, you should not take the initiative to take care of him/her	400	58.3	103	15.0	63	9.2	120	17.5
(6) If a friend or relative is in frequent contact with patients, I advise him to change department or job	329	48.0	189	27.6	120	17.5	48	7.0
(7) You believe you have the right to refuse service to any patient to avoid contracting COVID-19	332	48.4	186	27.1	120	17.5	48	7.0
(8) If you can choose, you do not want to deal with any patient	351	51.2	168	24.5	107	15.6	60	8.7
(9) Even just to talk to any patient, you should wear a mask to prevent infection	52	7.6	53	7.7	114	16.6	467	68.1
(10) For reasons of public safety, I do not think we should treat any patients	402	58.6	173	25.2	68	9.9	43	6.3
(11) The best way to prevent COVID-19 infection is to avoid any contact with sick people	264	38.5	192	28.0	126	18.4	104	15.2
(12) You are not against patient care, but it is better for you not to approach them	164	23.9	168	24.5	184	26.8	170	24.8

TABLE 3: Predictors of stigma towards chronic patients from HCWs ($n = 686$).

Models	Unstandardized coefficients		Standardized coefficients	t	Sig
	B	Std. error	Beta		
(Constant)	22.134	3.196		6.926	0.000
Age	0.084	0.049	0.114	1.706	0.089
Gender	−0.042	0.668	−0.003	−0.062	0.950
Nationality	1.759	1.085	0.066	1.621	0.105
Education	−0.562	0.493	−0.049	−1.140	0.255
Working	−0.496	0.607	−0.037	−0.818	0.414
Specialty	0.274	0.156	0.089	1.758	0.079
Type of work	0.041	0.473	0.004	0.086	0.931
Experience	−1.205	0.506	−0.157	−2.383	0.017
Income	0.193	0.536	0.020	0.359	0.719
Marriage	−0.612	0.616	−0.051	−0.993	0.321
Number of children	0.547	0.227	0.149	2.409	0.016
Living	0.058	0.636	0.004	0.091	0.928
Smoking	0.287	0.651	0.019	0.441	0.660
Insurance	−0.587	0.655	−0.039	−0.897	0.370
Watching news	−0.300	0.246	−0.051	−1.220	0.223

Dependent variable: stigma of HCWs towards patients with chronic diseases.

4. Discussion

The findings of the study showed some stigma of HCWs who work with COVID-19 patients towards chronically ill patients in Jordan. Our study also revealed that the stigma is closely linked to low job experience. Other studies also revealed that low job experience, prior COVID-19 interactions, and exposure to pandemic-related educational materials could cause some patients to experience stigma from HCWs towards them [4, 5]. Similarly, our study found that stigmatizing was widespread towards chronic patients by low experience HCWs. The findings of this research are like the results of previous studies during the pandemic [22, 23]. Moreover, in African countries, these individuals have lower educational level and revealed that the stigma is closely linked to low job experience levels compared to other healthcare professionals. Besides, this group does not need to pass COVID-19 educational courses [24]. Various studies have shown that higher COVID-19 knowledge leads to less fear and hence lower stigma. For instance, individuals who are less knowledgeable and less educated have been found to have more stigmatizing attitudes related to COVID-19 [25, 26].

Our study did not find any difference in the socio-demographic variables. It should be mentioned that HCWs play a crucial role in putting awareness practices into place because they can predict the negative effects of stigmatization and lessen them through institutional and social media interventions [20]. In earlier research [27, 28], it was also found that dental professionals and laboratory staff for infected persons during the pandemic experienced substantial COVID-19-related stigma [4, 22].

According to the literature, the high stigma prevalence may be because of frequent contact with blood and other contagious bodily fluids. The study also indicated that HCWs experienced stigmatizing attitudes when referring a patient to a dental clinic or department [22]. A study conducted in Nigeria found that the high prevalence of stigma among laboratory personnel and dentists were due to the difference in work culture and environment [11]. Despite this, the findings of both studies highlight the significance of targeting healthcare providers through training programs. Many HCWs in our study stated "the best way to prevent COVID-19 infection is to avoid any contact with sick people" and "they are not against patient care, but it is better for you not to approach them." This finding is consistent with results of a previous study in Jordan that suggested that the cause of stigmatizing attitude is the fear of contracting the virus [6]. Interventions such as training and basic knowledge on the virus have been proven to be effective in dealing with stigma and can be implemented to enhance the quality of care. The study also found that educational courses on COVID-19 and other infectious disease can reduce the prevalence of stigma and stigmatizing attitudes [3, 8]. Besides, there are positive associations between knowledge on how COVID-19 can be transmitted and low COVID-19-related stigma. According to these findings, healthcare providers can utilize programs to confirm their fears, contagion, and negative social judgment, which can help reduce COVID-19-related stigma.

4.1. Limitations. Although this study highlights significant observations, it has limitations. First, the study was carried out in one large city, limiting the findings' generalizability to other parts of the country. However, due to the cultural context of Jordan, the findings are informative when applied to other provinces. Like other studies conducted in the area, our findings rely on self-reported responses made by the healthcare providers. Therefore, the responses are subject to social desirability and reporting biases.

4.2. Implication. All healthcare professionals should be trained in the care of COVID-19 patients and in COVID-19-related topics. In general, prior research recommends five measures to lessen stigma associated with COVID-19 in

hospital settings [1]. These actions include (i) educating people to lessen their fear of contracting the virus; (ii) using peer groups; (iii) interactive modular training of healthcare providers on stigma related to COVID-19 and medical ethics; and (iv) dissemination of policy guidelines, training, and workshops for the healthcare providers. These measures could improve the standard of treatment provided to COVID-19 patients in Jordan.

5. Conclusion

In conclusion, this study's findings revealed some stigma towards patients with chronic diseases even if they did not indicate high levels of stigmatization of healthcare workers during the COVID-19 epidemic. The prevalence of stigma among HCWs towards chronic patients was 20%. Notably, it is crucial to put awareness practices into place for HCWs because they can anticipate the negative effects of stigmatization and lessen them through institutional and social media interventions.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Acknowledgments

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