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Article

Social Exclusion and Stigma in Patients with COVID-19

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Abstract

Background: Stigma in many contexts is defined as a process of differentiation, othering, and discrimination. Its external manifestations include outward, negative attitudes, and bad behavior targeted for those with a specific condition. SARS-CoV-2 infection have been seen as a dangerous clinical condition towards people. The aim of the study was to describe the risk factors for suffering social exclusion and stigma in a group of people with COVID-19. **Methods:** We included 95 people into a descriptive, cross-sectional, and correlational study. They were invited to participate voluntarily to answer an online survey, to determine and describe the effects produced by COVID-19 in social exclusion, stigma, demoralization, and self-care. **Results:** The participants, mostly women (61.1%), showed high education (72.6%) and did not require hospitalization (90.5%). 18.9% of the participants reported social exclusion, of these 86.7% were women, they only had a dose of COVID-19 vaccine (60%), poor sleep quality (46.3%) and suffered stigma (12.6%) from relatives and/or co-workers. Being female, not having the complete vaccination schedule and presenting stigma during COVID-19 were risk factors for social exclusion. **Conclusion:** Significant negative psychosocial consequences are observed in people who, in addition to suffering from COVID-19, suffer from social exclusion.

Keywords: social stigma; social discrimination; COVID-19; SARS-CoV-2

1. Introduction

Social determinants, such as health-care access, income inequality, and cultural beliefs about medical tests or hospital procedures, may influence COVID-19 incidence and outcomes in vulnerable populations [1]. There are many definitions of social exclusion; however, it explains the state of disadvantage faced by some groups who are felt to be removed from conventional society, and who cannot fully interact in normal life [2]. Social exclusion is considered a determinant of health; in fact, for the World Health Organization [3] it is a dynamic multidimensional process driven by unequal power relations that interact across four dimensions economic, political, social, and cultural. Those may occur at different levels, including individual, family, group, community, country and worldwide. Likewise, stigma can be defined as a characteristic by which a person is devaluated, tainted, or considered shameful or discredited [4], so it is considered a discriminatory process against people because of their condition. Both social determinants and stigma could be a part of a major problem to control the SARS-CoV-2 infection globally. Some researchers [5–8] have reported an increase in discriminatory behavior and stigmatization at the beginning of the pandemic. In addition,

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the impact can be prolonged and continued even when there are no longer symptoms, or the person no longer infects others. It has been said to be a personal experience or social process characterized by exclusion, rejection, guilt, and devaluation, because of negative social judgments. Goffman [9] states that stigmatization starts from individual attributes considered undesirable, socially interpreted as deviations. In extreme cases, the person is considered "inferior", "bad", "dangerous", "weak", "disfigured" or "minimized", being socially and morally degraded. Foucault [10] reflected on the relations between knowledge and power, explaining how social production establishes and maintains order; power would not be something that stops, as a priority, but as something that is practiced. According to the philosopher, power produces knowledge and there is no power relationship other than according to the field of knowledge, just as there is no knowledge without there being power relations. [10] The latter acts as a force that coerces, disciplines and controls individuals – which is not always negative but carries dangers, since these relationships, according to the author, build and maintain differences alone [10]. Parker and Aggleton [11] also interpret stigma and discrimination as social processes. For the authors, stigma occurs at the point of intersection between culture, power, and difference, playing an important role in the production and reproduction of power and control relations by evaluating certain groups and making others feel superior. Furthermore, the concepts of self-care and self-compassion, also serve to understand coping strategies; according to Gilbert [12], compassion is associated to the biological capacity of care for others, sensitivity to discomfort, sympathy, tolerance to discomfort, empathy, non-judgment and sustain a warm emotional tone. Self-compassion is the application of these capabilities in one's own experience. According to Gilbert and Procter [13] self-pitying people are genuinely aware of their own well-being and are sensitive and empathetic to the discomfort of others, being able to be tolerant of discomfort without falling into self-criticism and judgment, understanding the causes of this discomfort, and treating themselves with warmth. It can often affect people's mental health and lead to avoidance and distancing, further aggravating the situation [6,8]. The consequences of COVID-19 social determinants are people isolation and psychological burden, physical and mental violence and harassment, hiding disease, and reduced care-seeking behavior. The objective of this study was to describe the risk factors for suffering social exclusion and stigma in a group of people with COVID-19.

2. Materials and Methods

2.1. Procedures

This was a cross-sectional and descriptive study. Patients attending at Instituto Nacional de Rehabilitación "Luis Guillermo Ibarra Ibarra" in Mexico City, were invited, and agreed by consenting their participation to answer a questionnaire. The included patients answered a battery of scales designed *ad hoc* to assess the experience of social exclusion during their COVID-19 period, which was answered electronically while using a tablet or cell phone. If the participant needed help, a trained interviewer in this type of research, provided support in the application of the battery of tests.

2.2. Sample

Between June to December 2021 a total of 95 questionnaires were performed. The battery of self-applicable tests was performed using Google Forms platform. It was divided into five sections; 1) sociodemographic and context information of the COVID-19 infection; 2) stigma; 3) psychosocial affectations (self-compassion and demoralization) 4) type D Personality and 5) Pittsburg sleep scale. Perceived stigma was assessed by adapting the stigma scale (Cronbach alpha=0.96) [5,6] which measures two dimensions, internal stigma (distance, exclusion and shame caused by suffering the disease), and externally perceived stigma (degree of discomfort generated in social interactions). The Self-Compassion Scale (SCS) (26 items) was applied, assessing how the individual perceives their actions in difficult times. It is composed of six domains, in three distinct but theoretically related concepts: common humanity, mindfulness, and self-compassion, which have their counterpart in

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self-judgment, isolation, and over-identification [14]. An overall SCS rating has adequate reliability and validity in Mexican population internal consistency (Cronbach alpha=0.84) [15,16], even in different cultures [17]. The DS Demoralization Scale (24 items) was also used to explore the inability or incompetence to effectively cope with a stressful situation, through five domains: loss of meaning in life, dysphoria, discouragement, helplessness, and sense of failure [18]. Most studies [19] have found adequate levels of internal consistency (Cronbach alpha=0.94). Type D personality has been described as the trend to experience an increase occurrence of negative affectivity, social inhibition and may negatively affect health status [20]. Poor sleep may cause disadvantageous decision-making and poor social functioning. Pittsburgh Sleep Quality Index (ICSP) assesses the quality of sleep through a self-applicable questionnaire of 24 questions, 19 of these are used to obtain an overall rating, which are rated on a scale of 0 to 3. A score >5 distinguishes those who sleep poorly from those who sleep well (Cronbach alpha = 0.78). [21]

2.3. Statistical Analysis

Descriptive analysis was performed on the variables of interest. Normality distribution was observed using the Kolmogorov-Smirnov test. A univariate analysis with non-parametric statistics (Wilcoxon and Kruskal Wallis teste) explored significant differences between sample characteristics and level of stigma during the COVID-19 epidemic. Finally, through an analysis of contingency tables, the crude prevalence ratios for categorical or ordinal variables were estimated in a stratified analysis, which allowed to identify confounding variables and interactions between them. Subsequently, a multivariate analysis was performed using non-conditional logistic regression to estimate the probability of suffering social exclusion depending on the effect of covariates through the exponential regression coefficients (adjusted odds ratios). The model included all significant variables identified in the bivariate analysis. By means of the Hosmer-Lemeshow goodness-of-fit test, the most parsimonious model was selected. Dummy's variables were created as a form of categorization for ordinal variables. A < 0.05 of two tails was considered statistically significant. Information was analyzed with SPSS Version 22.0.

2.4. Ethical Considerations

Participants signed a digital consent form before completing the questionnaires. The institutional clinical research ethics committee approved the study with number 70/21 COVID.

3. Results

Study population general characteristics are shown in Table 1. Of the 95 participants in the study, 61.1% were women and 64.2% were between 30 and 50 years old, 72.6% had high education, were single in 41% and mostly did not require hospitalization (95.8%). The time they were with COVID-19 symptoms was an average of 2.5 (±1.8) weeks with a range of 1 to 10 weeks. The people who reported suffering social exclusion (discrimination) were women (83.3%); however, the other variables no significant differences were observed.

Table 1. Demographic characteristics compared by social exclusion.

	Social exclusion		**Total**	
	Yes= 18 n (%)	No= 77 n (%)	n=95 n (%)	F (p)
Gender				4.636 (0.031)
Male	3 (16.7)	34 (44.2)	37 (38.9)	

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Female	15 (83.3)	43 (55.8)	58 (61.1)	
Age				1.958 (0.376)
18-29	2 (11.1)	19 (24.7)	21 (22.1)	
30-50	14 (77.8)	47 (61.0)	61 (64.2)	
51+	2 (11.1)	11 (14.3)	13 (13.7)	
Education				1.228 (0.525)
High school	3 (16.7)	23 (29.9)	26 (27.4)	
University	11 (61.1)	39 (50.6)	50 (52.6)	
Postgraduate	4 (22.2)	15 (19.5)	19 (20.0)	
Marital status				6.190 (0.103)
Single	3 (16.7)	36 (46.8)	39 (41.1)	
Married	10 (55.6)	23 (29.9)	33 (34.7)	
Cohabiting	3 (16.7)	12 (15.6)	15 (15.8)	
Divorced	2 (11.1)	6 (7.8)	8 (8.4)	
Hospitalization				2.062 (0.161)
Yes	2 (11.1)	2 (2.6)	4 (4.2)	
No	16 (88.9)	75 (97.4)	91 (95.8)	
Vaccine status				4.990 (0.082)
Unvaccinated	2 (11.1)	21 (27.6)	23 (24.2)	
Incomplete	12 (66.7)	29 (38.2)	41 (43.2)	
Fully vaccinated	4 (22.2)	26 (34.2)	30 (31.6)	
Know what to do in case of suffering discrimination				0.081 (0.781)
No	6 (33.3)	23 (29.9)	29 (30.5)	
Yes	12 (66.7)	54 (70.1)	66 (69.5)	

F. Fisher's test.

On the other hand, it was observed that those who report of having suffered social exclusion had a longer period with symptoms since 61 participants (64.2%) presented symptoms for more than a week. Also, higher scores on the stigma scale, being both promulgated and perceived to differ from those who do not report social exclusion during the time they suffered COVID-19, even so in 12 participants (12.6%) stigma could be observed. Regarding self-compassion and demoralization, no significant differences were observed, but higher scores were detected in those who perceived social exclusion during COVID-19 (Table 2).

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Table 2. Comparison between social exclusion and time with symptoms, measures of care, quality of Pittsburgh sleep, stigma, self-compassion, type D personality and demoralization.

	Social exclusion		
	Yes= 18 Mean (SD)	**No= 77 Mean (ZD)**	**z (p)**
Weeks with symptoms One* More than a week*	3.41 (1.97) 2 (11.1) 16 (88.9)	2.32 (1.73) 32 (41.6) 45 (58.4)	**-3.066 (0.002)**
Care measures Yes* No*	4.34 (0.57) 15 (83.3) 3 (16.7)	4.04 (0.78) 59 (76.6) 18 (23.4)	-1.528 (0.488)
Sleep quality Yes* No*	6.68 (2.46) 6 (33.3) 12 (66.7)	4.87 (2.91) 45 (58.4) 32 (41.6)	**-2.361 (0.018)**
Stigma Yes* No*	14.50 (14.14) 6 (33.3) 12 (66.7)	6.51 (9.18) 6 (7.8) 71 (92.2)	**-2.699 (0.007)**
Enacted	5.06 (5.76)	2.79 (4.26)	**-2.288 (0.022)**
Perceived	9.44 (10.12)	3.72 (5.77)	**-2.420 (0.016)**
Self-pity Yes* No*	66.50 (12.24) 13 (72.2) 5 (27.8)	67.79 (13.78) 61 (79.2) 16 (20.8)	-0.542 (0.588)
Positive	33.17 (10.92)	30.82 (9.40)	-0.747 (0.455)
Negative	44.67 (7.87)	41.03 (9.83)	-1.314 (0.189)
Social inhibition	7.39 (4.53)	8.83 (5.91)	-0.800 (0.424)
Negative affect	6.17 (5.24)	7.21 (6.52)	-0.396 (0.692)
Demoralization Yes* No*	16.33 (11.77) 2 (11.1) 16 (88.9)	21.78 (17.33) 15 (19.5) 62 (80.5)	-0.926 (0.354)
Helplessness	2.83 (1.89)	4.40 (3.18)	-1.798 (0.072)
Loss of meaning	4.11 (3.38)	5.18 (4.52)	-0.774 (0.439)
Dysphoria	2.27 (2.94)	1.61 (1.50)	-0.010 (0.992)
Sense of failure	5.21 (4.10)	4.22 (4.69)	-1.213 (0.225)
Discouragement	3.56 (4.53)	4.71 (6.47)	-0.024 (0.981)

z. W of Wilcoxon. H. Chi-Square. Est_p. Stigma promulgated Internal. Est_s. Perceived external (social) stigma. Est_s. Stigma total score. ICSP. Pittsburgh Sleep Quality Index. Med Cuid. He followed Care Measures. PTD. Type D personality. * N (%).

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In terms of stigma, it was observed that people who only had one dose of vaccine had higher scores on social stigma and the total stigma scale. In the same way, those who suffered social exclusion during COVID-19 period showed differences in the scores of enacted and social stigma, as well as in the total scale, obtaining higher scores. This same situation was observed in people who showed poor sleep quality assessed with the Pittsburgh sleep scale (Table 3).

Table 3. Demographic and sleep quality variables compared by stigma in patients with COVID-19.

	Stigma internally perceived		**Stigma externally perceived**		**Total Stigma Score**	
	Mean (SD)	**z/H (p)**	**Mean (SD)**	**z/H (p)**	**Mean (SD)**	**z/H (p)**
Gender		-.765 (0.444)		-1.159 (0.246)		-1.354 (0.176)
Male	3.05 (4.77)		4.40 (7.63)		7.46 (11.84)	
Female	3.33 (4.47)		5.07 (6.81)		8.40 (9.97)	
Age (years)		.489 (0.783)		.575 (0.750)		.574 (0.750)
18-29	1.91 (2.53)		3.09 (3.73)		5.00 (5.86)	
30-50	3.71 (5.14)		5.49 (8.01)		9.20 (11.93)	
51+	3.08 (4.05)		4.39 (6.64)		7.46 (10.06)	
Education		4.087 (0.130)		2.996 (0.224)		3.456 (0.178)
High school	1.65 (2.81)		3.62 (7.14)		5.27 (8.31)	
University	3.92 (5.15)		5.16 (6. 65)		9.08 (10.98)	
Postgraduate	3.53 (4.56)		5.53 (8.34)		9.05 (12.53)	
Marital status		1.092 (0.779)		2.339 (0.505)		2.506 (0.474)
Single	3.59 (5.74)		5.29 (5.00)		8.16 (5.37)	
Married	3.30 (4.25)		3.28 (4.05)		5.03 (4.36)	
Cohabiting	2.40 (2.03)		3.70 (4.33)		6.65 (5.41)	
Divorced	2.62 (2.77)		3.10 (4.97)		4.57 (5.57)	
Hospitalization		-1.588 (0.112)		-1.677 (0.094)		-1.992 (0.055)
Yes	5.75 (6.18)		15.25 (14.45)		21.00 (17.64)	
Non	3.11 (4.50)		4.35 (6.38)		7.46 (10.05)	
Vaccine status		4.715 (0.095)		**9.320 (0.009)**		**7.862 (0.020)**
Unvaccinated	1.91 (3.46)		3.30 (7.06)		5.22 (9.44)	
Incomplete	3.97 (4.75)		6.15 (7.61)		10.12 (10.95)	
Fully vaccinated	3.30 (4.98)		4.30 (6.38)		7.60 (11.05)	

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Know what to do in case of suffering discrimination	-0.201 (0.840)	-0.172 (0.863)	-0.345 (0.730)	
No	2.86 (4.10)	4.62 (7.53)	7.48 (11.40)	
Yes	3.38 (4.78)	4.89 (6.97)	8.28 (10.43)	
ICSP	**-3.860 (0.001)**	**-3.793 (0.001)**	**-4.254 (0.001)**	
Good sleep quality	1.68 (2.92)	2.24 (4.08)	3.92 (6.40)	
Poor sleep quality	5.00 (5.45)	7.80 (8.64)	12.80 (12.59)	
Care measures	-0.149 (0.882)	-0.145 (0.885)	-0.114 (0.909)	
Yes	3.19 (4.58)	4.93 (7.33)	8.12 (10.82)	
No	3.33 (4.62)	4.38 (6.39)	7.71 (10.43)	

z. W of Wilcoxon. H. Chi-Square. ICSP. Pittsburgh Sleep Quality Index. PTD. Type D personality.

Finally, the logistic regression model for social rejection (Table 4) showed that the variables giving risk of social exclusion during the pandemic were, being a woman (p = 0.041), having a single vaccination dose (p = 0.035) and suffering stigma (p = 0.004). The Hosmer and Lemeshow test showed that the model presented a good fit (p = 0.641).

Table 4. Model for social rejection in patients with COVID-19.

	n	B	ES	Exp(B) 95%	C.I. para EXP (B)
Variable		-3.648	.838	.026	
Gender					
Male	37	1	.752	4.640	(1.062 - 20.266)
Female	58	1.535			
Stigma					
No	83	1			
Yes	12	2.205	.763	9.071	(2.033 - 40.467)
Vaccination at least with one dose					
No	54	1			
Yes	41	1.304	.618	3.685	(1.097 - 12.384)

4. Discussion

As in other studies [3,4,13,22], people who suffered from COVID-19, perceived rejection when reintegrating into their daily activities [4]. We found in this study that 18.9% reported social exclusion, being mostly women, which agrees with the data reported in the EDIS 2021, where it described that during the first year of the COVID-19 pandemic, an increase in discrimination against women was observed and not being able to attend meetings is reported as the most frequent form of social exclusion [6]. Gender differentiation might be explained because women are exposed to a more social disadvantages related to health access, so it is believed that females are more stigmatized than males for the same behavior such as in other infectious diseases [23]. Therefore, such kinds of rejection might negatively influence internalized stigma.

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In our study, people suffered rejection from colleagues, neighbors, or relatives; as an example, they comment that they did not want to take samples in the absence of serious symptoms or provide care, in addition to returning to work they were avoided by their colleagues or bosses. Discrimination and social exclusion secondarily may have detrimental health consequences and could reduce the possibility of seeking help sooner because of social stigma [24]. On the other hand and interestingly, they also had longer symptoms than people who did not report suffering social exclusion; this might be related to a delay on seeking clinical attention secondary to this suffering, perpetuating their symptoms as it has been observed in other diseases such as HIV or psychiatric ones [25,26].

Our findings show greater internal and social stigma, which can be explained, because they perceive themselves highly vulnerable to the reactions of the environment where they live, they are afraid and uncertain, partly because several did not have the complete vaccination scheme (43.2%) before contracting COVID-19. As in other study people mentioned the infection became the cause of the problem of being stigmatized [10]. This also shows effects after the suffering of COVID-19, because 46.3% report poor sleep quality. Recent findings highlighted that individuals' adaptability could affect sleep quality [27], the highly adaptive personalities had less perceived stress and better sleep quality compared to subjects with a lower degree of adaptability.

We must not forget that COVID-19 frequently occurs in low social strata, with individuals with tertiary or precarious jobs and in conditions of poverty [28], which may contribute to clinical and social consequences. According to the study "Mortality from COVID-19 in Mexico," seven out of 10 victims had primary school and lived in situations of poverty [29]. In other countries, the following was documented; in Pakistan, one study [3] in 114 patients reported high stigma, where many features of the disease can evoke stigma: the disease is considered by others as the *responsibility* of the carrier, the disease is *fatal* and *contagious* and due to quarantine and isolation quickly becomes *apparent* to neighbors. On the other hand, in Korea [4], the psychological burden of COVID-19 on the stigma and mental health of patients was assessed, finding that post-traumatic stress syndrome (PTSD), psychiatric history and stigma of COVID-19 infection, as well as the total duration of isolation, were found to be significant risk factors. Similarly in Uganda [30] in 1726 respondents, 8.4% (145) experienced violence or discrimination during the COVID-19 pandemic, the most frequent was related to their social/economic situation, being more common in men (OR = 1.60 CI: 1.10–2.33), at work (OR = 1.1.33), and because they did not have easy access to social or essential health services since the beginning of the epidemic (OR = 3.10 CI: 2.14–4.50). Our results agreed with p results and may be associated to sociocultural context in a specific time-period, which could be modified as the pandemic has been moving dynamically.

Even though we did not find a direct relation with altered emotional status and stigma it might possible be related. In Mexico [5] in the general population, it was reported that during the first wave of COVID-19, 20.8% presented symptoms of anxiety and 27.5% of depression, according to the results of perception of the Survey on Discrimination in Mexico City (EDIS), prepared by the Council to Prevent and Eliminate Discrimination, COPRED [31]. The people surveyed consider that the most discriminated group are those with brown skin, followed by indigenous people and in third place being women, a group on which the perception of discrimination against them increased drastically, since it improved from 2.7% in 2013 to 4.3% in 2017 and now 9.4% in the EDIS 2021. One in four people surveyed (25%) have felt discriminated against at least once. Rossi et al., [32] in hospitalized patients reported that 26.7% presented anxiety and symptoms of demoralization, mainly related to sadness and anxiety with the current and future situation, perceived as confusing and uncertain.

We believe patients are vulnerable to demoralization, especially if we consider structural factors that affect health (such as hopelessness), life chances, equality, and social justice, during and after COVID-19.Demoralization [33,34] is recognized as the inability or incompetence to effectively face a stressful situation, which causes discomfort and subjective incompetence. It is produced by the subjective perception of the person of damage to their independence and competence, in the case of COVID-19 this feeling is the result of uncertainty regarding the consequences of the disease, people's expectations and the loss of social roles, producing isolation, lack of control and worry, affecting self-

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efficacy and self-esteem. In patients with prolonged hospitalization and those who were isolated from family and friends, many psychological problems were observed requiring attention, being anxiety, demoralization, stress, depression, and mourning the most frequent [28].

As vaccination has been accessible as time has passed, people might feel protected to get infected or complicated; however not having a complete vaccination scheme could make feel people at risk of developing one or more complications. More than 70% of worldwide population have received at least one vaccine dose; however not having the full scheme doses might fell people to have complications. Furthermore, COVID-19 patients who have had frequent encounters with being stigmatized are more prone to viewing contact with the health care system as a threat to their self-worth.

There are several limitations in the current study that must be mentioned. First, this study was a cross-sectional study, limiting the establishment of causal relationships between variables. Therefore, longitudinal studies are needed. Second, we measured COVID-19 related stigma in terms of negative experiences, emotional responses, sleep quality among only COVID-19 patients and not to general population. Third, we conducted only quantitative analyses while using scales and not comprehensive assessments of stigma including qualitative analyses which could enrich the information. Fourth, as we work in a hospital, we included only patients who had access to medical services and not those who did not. Including general population may allow a deeper understanding of COVID-19 related stigma. Fifth, the simple size of this study is a key factor to be considered in the interpretation of results that could have potentially introduced several biases.

5. Conclusions

Significant negative psychosocial consequences are observed in people who, in addition to suffering from COVID-19, suffer from social exclusion. Stigma could be associated with more symptomatic duration and women might be more affected.

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