Community Stigma and Attitude towards COVID-19 among Sudanese People, A Cross-Sectional Study

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Abstract:

Background: Stigmais a mark ofdisgrace that negatively affects community attitude towards the current Corona Virus Disease 2019 pandemic which may contribute to continuous rising in the total number of cases and deaths. Therefore, this study aims to address the public stigma and community attitude towards this pandemic, people who had the disease and health care workers. Understanding people attitudes towards the disease will help in controlling the pandemic.

Methods: Community based cross-sectional study conducted in Sudan, July 2020. Anonymous online pretested questionnaire of 10 items was distribute to have as much as possible respondents with diverse socio-demographic characteristics but the age should be over 18 years old. 437 were finally involved in the study. Statistical Package for Social Sciences-version 23 was used for data entry and analysis. Chi-square test and pearson's correlation coefficient were used to test the associations and nature of the relationship between variables.

Results: 251 (57·4%) were females and 186 (42·6%) were males and the mean age was found to be 27·76 ± 8·98. Most of the participants (70·9%) said that they are going to have the COVID-19 (Corona Virus Disease 2019) test if they have symptoms suggest the disease, stick to isolation (95·9%) and they treat health care workers normally but with prevention precautions (87·2%).

Conclusion: Respondents have a good attitude towards the disease, health care workers and those who had the disease previously. We recommend addressing stigma issues along with prevention and control programs and encourage people to get checked if they have the symptoms.

Keywords: COVID-19, Stigma, Attitude, Sudan

LIST OF APPREVIAIONS:

AIDS	Acquired Immunodeficiency Syndrome
COVID-19	Corona virus disease 2019
HCWs	Health Care Workers
SARS	Sever Acute Respiratory Syndrome
SPSS-23	Statistical Package for Social Sciences-version 23

1. INTRODUCTION

Sudan's health ministry identified the first case of COVID-19 (Corona Virus Disease 2019) pandemic in Sudan on 13.3.2020. The case-which died subsequently-was of a 50 years old man[1]. At the time of writing this manuscript, the local number of cases and deaths were 8889 and 548 respectively [2] and the global number of cases and deaths were 9.06 million and 471,681 respectively [3][4].

Stigma is a mark of disgrace that sets a person apart from others [5]. Social stigma means that there is a negative

association related to a person a group of people who has a specific disease in common and certain characteristics. In outbreaks, the infected patients could be stereotyped, discriminated against, labelled, treated separately and/or experience loss of status because of a perceived link with a disease. This social stigma affects the patients, care givers, family friends and communities. The newness and the unknowns of the disease, the fear of the unknowns and the easiness to link that fear with "others" are the main factors related to COVID 19 (Corona Virus Disease 2019) stigma. Stigma of COVID 19 (Corona Virus Disease 2019) patients can make them hide their disease, avoid seeking health care – which hardens the control of the disease- and discourage them from establishing healthy behaviors (6). A study conducted in Taiwan indicated that fear of SARS (severe acute respiratory syndrome) resulted in decreased seeking of health care: 23·9% decrease in ambulatory care, 35·2% decrease in inpatient care and 17·6% decrease in dental care (7). Stigma can increase the suffering of the disease and cause economic loss due to avoidance of people toward the people and areas linked to the disease (8).

Health care workers who work in COVID 19 (Corona Virus Disease 2019) facilities can also be stigmatized and discriminated against, which prevent them from proper response towards infected patients due to their fear from acquiring the infection. The social and psychological effect of stigmatized COVID 19 (Corona Virus Disease 2019)patients leads to decrease mental health and quality of life and social withdrawal.

Patients infected with COVID 19 (Corona Virus Disease 2019) can be stigmatized by the community, which –in real life- can be reflected in the following cases: community members declare the status of COVID 19 (Corona Virus Disease 2019)patients to the public without these patients consent, the misconception that these patients should be treated in their special hospitals and by specific health care workers and misconception that these patients should be rejected from their work and their community until they regain their health.

In real life, health care workers who work in the field of COVID 19 (Corona Virus Disease 2019)can also be stigmatized by the community in the following cases: patients refused to be treated by such HCWs (Health Care Workers), and refused to go to hospitals which deal with COVID 19 (Corona Virus Disease 2019)or even hospitals which do not deal with COVID 19 (Corona Virus Disease 2019)but received COVID 19 (Corona Virus Disease 2019)cases.

Stigma against COVID 19 (Corona Virus Disease 2019)patients and HCWs (Health Care Workers) hardens the control of COVID 19 (Corona Virus Disease 2019)pandemic by making the patients avoid health care and making the HCWs (Health Care Workers) avoid caring for COVID 19 (Corona Virus Disease 2019)patients.

Up to our knowledge, this the first study conducted in Sudan which addresses the stigma and its effects on health seeking behavior and the attitudes of community towards HCWs (Health care workers) and COVID 19 (Corona Virus Disease 2019)patients.

Objectives:

This study aims to determine the effect of stigma of COVID 19 (Corona Virus Disease 2019)on health seeking behavior and to determine the attitudes of community towards: COVID 19 (Corona Virus Disease 2019)patients and towards HCWs (Health Care Workers).

2. MATERIALS AND METHODS

Study settings:

This was descriptive community based cross-sectional study, conducted among Sudanese people during June 2020.

Sample technique: Our aim was to recruit as much as possible sample from the community with diverse socio-demographic background but the age should be over 18 years old with exclusion of those refused to participate. Questionnaire weredistributed through university students to their families and communities.

Sample size: 437 respondents were finally involved in the study

Tools: Data was collected through anonymous online questionnaire. The items of COVID-19 (Corona Virus Disease 2019)stigma questionnaire were constructed based on extensive review of stigma scales of similar disease like SARS (Sever Acute Respiratory Syndrome) and AIDS (Acquired Immunodeficiency Syndrome) (9,10). Questionnaire was pretested in 50 respondents then modified according to the responses and tests were done to ascertain reliability of items (α-krombach test, α= 88·6%). The questionnaire composed of 9 items and a likert scale of 10 items.

Ethical clearance: before taking part in the study, we informed the participants with all the relevant aspects of the study, then they confirm their willingness to participate. The study was approved by local ethical committee at Department of Community Medicine ,University of Khartoum.

Data analysis: Data was entered and analyzed using SPSS-23(Statistical Package for Social Science). Continuous variables were expressed as mean and standard deviation. Categorical variables were presented as frequencies and percentages. Chi-square test was used to test the associations between categorical variables and person's correlation coefficient was used to determine the nature of the relationship between variables. P.value less than ·05 was considered significant.

Limitation: we used online forms and nonprobability sampling because of COVID-19 (Corona Virus Disease 2019)pandemic and to insure social distancing. Lack of previous similar studies.

3. RESULTS

437 response were finally analyzed, the age of the respondents ranged from 16 to 65 years and the mean was found to be 27·76 ± 8·98. 251 (57·4) of them were females and 186 (42·6%) were males. More than half of the respondents receive a University study and 191 (43·7) were students. Table [1].

Almost half of the participants 198 (45·3%) knew more than two patients with COVID-19 (Corona Virus Disease 2019), 31 (7·1%) knew two patients, 42 (9·6%) knew one patient and 166 (38%) didn't know any patient.111 (25·4%) think that COVID-19 (Corona Virus Disease 2019) is associated with low socioeconomic class.

In regard to the health seeking behavior, More than two-thirds of the respondents 310 (70·9%) said that they are going to meet a doctor if they had symptoms that suggest COVID-19 (Corona Virus Disease 2019)infection. 381 (87·2%) agreed that health care worker should be treated normally but with precautions in order not to get the infection and 56 (12·8%) think of health care worker as a source of infection that should be avoided.

In general the respondents demonstrate a good attitude towards the disease as 359 (82·2%) of them agreed that they would stick to isolation and 419 (95·9%) will not carry on their daily activity of going out and meeting people, but only 210 (48·1%) agreed to the statement that they are going to tell everyone that they have the disease. 108 (24·7%) agreed that they will not eat or drink with those had the disease. Table [2].

Associations:

Age and health seeking behavior are positively correlated (r = 0·1, P.value = ·037)

Level of education significantly associate with respondent's attitude as that those with higher educational level tend to treat health care worker normally with precaution, stick to isolation, refuse to hide the disease from people and to carry on their daily normal activity. Table [3].No significant difference between the different occupations and how they treat health care workers (P.value = ·196) but significantly they differ in their health seeking behavior with more frequent student would meet the doctor if they have symptoms that might suggest COVID-19 (Corona Virus Disease 2019) infection (P.value = ·01).

There is significant difference between males and females attitude toward those had the disease as females more frequently agreed the statements: Don't eat or drink with those had the disease (P.value = ·012), feel fear from those had the disease (P.value = ·005) and prefer not to have those had the disease living in our community (P.value = ·04).

4. DISCUSSION

The study is about COVID-19 (Corona Virus Disease 2019)pandemic among 437 respondents of community members. The objectives of the study include; effects of COVID-19 (Corona Virus Disease 2019)stigma on health seeking behavior, attitudes of community towards HCWs (Health Care Workers) and COVID-19 (Corona Virus Disease 2019)patients.

We found that most of the respondents (70·9%) would meet a doctor if they had symptoms that suggest COVID-19 (Corona Virus Disease 2019)infection. This result indicates that stigma towards COVID-19 (Corona Virus Disease 2019)disease is not a barrier-for most of the respondents- to seek a health care. This could be explained by the fact that most of them were educated and (77·6%) received Bachelor degree.

Most of the respondents (87·2%) agreed to deal normally with HCWs (Health Care Workers) with the usage of precautions. This can be due to that a lot of the respondents belonged to the medical field and –as mentioned previously- most of them were highly educated. People who belong to the medical field know the exact mechanism of the transmission of the virus and that is why they commit to precautions and deal with other HCWs (Health Care Workers) normally.

Most of the respondents strongly disagreed with the following: abstention of touching COVID-19 (Corona Virus Disease 2019)patients and also abstention of eating, drinking or talking with them, feeling discomforted near patients and disallowing their children from playing with COVID-19 (Corona Virus Disease 2019)patients. This could be explained by the fact that Sudanese people are well-known for their socials and interrelationships as –in real practice- they visit the patients without much concern to the precautions. Obviously, the true attitude is the reverse of what the respondents strongly disagreed with, i.e. they should keep social distance between them and the patients by providing the patients with separate rooms and not eating or drinking them, and by disallowing children from playing with the patients even if they are symptomless.

Most of the respondents strongly disagreed with the following: description of COVID-19 (Corona Virus Disease 2019)patients as disgusting, fear from the patients, disallowing them from living in the society of healthy people and patients lose their jobs and get embarrassed due to the infection. This result can be explained by that a lot of the respondents belonged to the medical field and they know the mechanism of transmission of the virus and the prognosis of the disease, so that the patients should be isolated separately inside the society of healthy people, and should be given a pause from work until their full recovery without feeling disgusted or scared of.

TABLE 1: *Socio-demographic characteristics*

Items	Frequencies (%)
Gender	
Male	186 (42·6%)
Female	251 (57·4%)
Occupation	
Health care worker	84 (19·2%)
Freelance worker	27 (6·2%)
governmental employee	36 (8·2%)
private employee	38 (8·7%)
Student	191 (43·7%)
Unemployed	61 (14%)
Educational level	
Illiterate	3(·6%)
Quranic school	2 (·5%)
primary school	10 (2·3%)
secondary school	37 (8·5%)
University	339 (77·6%)
postgraduate study	46 (10·5%)

TABLE (2): *Respondents attitude toward those had the disease*

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
don't eat or drink with those who had the disease	121(27·7%)	104 (23·8%)	65 (14·9%)	108 (24·7%)	39 (8·9%)
Don't feel comfortable near those who had the disease	118 (27 %)	128 (29·3%)	81 (18·5%)	92 (21·1%)	18 (4·1%)
Don't let my child play with those who had the disease	123 (28·1%)	94 (21·5%)	66 (15·1%)	115 (26·3%)	39 (8·9%)
Those who had the diseases are disgusting	316(72·3%)	111 (23.1%)	9 (2.1%)	11 (2.5%)	0 (0%)
Don't talk to those who had the disease	283 (64·8%)	112 (25·6%)	21 (4·8%)	19 (4·3%)	2 (5%)
Fear those who had the disease	190 (43·5%)	129 (29·5%)	61 (14%)	50 (11·4%)	7 (1·6%)
Don't touch those who had the disease	168 (38.4%)	123 (28·1%)	48 (11%)	81 (18.5%)	17 (3.9%)
Prefer not to have those who had the disease living in our society	286 (65·4%)	97 (22·2%)	23 (5·3%)	28 (6·4%)	3 (7%)
Those who had the loose their jobs	264 (60·4%)	110 (25·2%)	37 (8·5%)	23 (5·3%)	3 (7%)
Some people got embarrassed from the disease	127 (29·1%)	66 (15·1%)	57 (13%)	140 (32%)	47·8%)

TABLE (3): *Associations between educational level and attitude items*

Items	Educational level
Treat health care worker normally with precautions	P.value = ·000
Stick to isolation	P.value = ·003
Hid the disease from everyone	P.value = ·003
Carry on my daily normal life	P.value = ·001

5. CONCLUSION

- Most of the respondents agreed that they will see the doctor if they have symptoms that suggest COVID-19 (Corona Virus Disease 2019)infection.

- Respondents have a good attitude towards the disease and health care workers, they will stick to isolation, maintain social distancing and treat health care worker normally with precautions.

- In general male's attitude towards those who had the disease is better than females.

- These findings explain the importance of addressing the stigma issues along with prevention and control programs in order to improve community awareness to have better

control over COVID-19 (Corona Virus Disease 2019)pandemic.

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