Research Article

Level of Social Stigma and Anxiety Disorders among COVID-19 Survivors in Kigali City, Rwanda

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Abstract

Rwanda reported its first Covid-19 imported case on 14 March 2020. Psychologists intend to ensure social reintegration of Covid-19 Survivors but little is known on the magnitude of anxiety disorder and effect caused by fearing that outbreak from their families. The present study aimed to determine the level social stigma and anxiety disorder among Covid-19 survivors in Kigali City and cross sectional study design was conducted. A total of 425 Covid-19 survivors participated in the study. Data was corrected by Community Health Workers (CHWs) using structure interviewed questionnaire. Data has been analyzed using SPSS version 21. The study findings show that 50.6% of the respondents were male, 56% of respondents were married, 33.9% had secondary level of education, 67.5% were living with a range of 3 to 5 household members and the mean age of respondents was 37.5 years. Generally, results revealed that 50.1% of respondents presented high level of social stigma and 48.5% shown high level of anxiety disorders. It concluded that discontinued job had greater association with stigma and anxiety disorders and this means that they faced economic related challenges while they were sick and supposed to be confined to their houses. To address this health pattern, researcher recommends the Rwandan government and other partners find solution to people who lost their job due to Covid-19 and continue to provide financial support to the most vulnerable people. Community awareness about mental health problem for early detection and full management within health institutions need an improvement.

Keywords: Covid-19; Stigma; Anxiety; Covid-19 survivors

Abbreviations

CHWs: Community Health Workers; COVID: Corona Virus Disease; WHO: World Health Organization

Introduction

There are seven types of Coronaviruses that affect humans and the 2019 novel coronavirus is one of them and it leads to serious upper respiratory dysfunction which ends to Covid-19 disease. This virus can survive in air and transmitted *via* sneezing, close contact with infected person, coughing and the touching of contaminated surface or objects. The origin of this virus is Wuhan city, Hubei province to the China by December 2019, where a pneumonia with unknown etiology observed within a cluster of 27 new cases. A new stain of coronavirus was linked with pneumonia cases where the researchers found out that there has been a transmission of new disease from infected animals to humans especially within the open seafood market located in Wuhan city of China. Since that time (December 2019), the disease has spread to 221 countries and territories and other international conveyances then after declared as "Public Health Emergency of International Concern" in January and considered as a pandemic by WHO in March 2020. As of 30 June 2020, there are 10,421,490 cases of Covid-19 worldwide and have been 508,419 deaths with 5,679,143 recoveries [1,2]. The World Health Organization (WHO) together with authorities of China started working hand in hand and a new etiological agent was recently established to be a new virus and was named Novel Coronavirus (2019-nCoV) [3].

Initially, less having more information from the population on the earth, this caused much fearing and stressfulness due to its highest spread between cities, then countries and suddenly becoming a pandemic disease within two months [4].

Its epidemiology is complicated by the highest incidence rate where the new Covid-19 cases keep increasing and manywice multiplied from its beginning. Social stigma in health context is undesirable association between either interpersonally or cluster of people with the same behavior and distinctive disease. In the case of an outbreak, this means disapproval of, discrimination against, separation in terms treatment and stemming from a negatively viewed personal attribute which may results in disease related spoiled identity. Covid-19 pandemic, has brought about some distinct treatment within the society for those who has been in contact the virus [5].

The high transmission of Covid-19 caused numerous impacts as well as economic and financial disruption due to its prevention and control measures. Forced quarantine and lockdowns have been initiated nationwide to fight for Covid-19 can end up with mental disorder as well as depression, acute panic, fearing and anxiety disorder in the extend period and different platforms of social media and excessive amount of information concerning to health problems of Covid-19 considered as stimulation of stigmatization [6].

Much fearing of Covid-19 which is coronaphobiahas gave rise to a glut of mental problems within the society. So, this review has been

undertaken to define psychosocial impact of Covid-19 [4].

Materials and Methods

Data collected using structured questionnaire which conceptualized based on research objectives to answers each of research questions. This research questionnaire contains the dependent variable which enables research to determine the level of stigma and anxiety disorders (first research question of this study) among Covid-19 survivors in Kigali city.

This study used cross-sectional study design which is suitable for prevalence studies. This study design helped researcher to collect quantitative data to enable answer on the total number of Covid-19 survivors with stigma and anxiety disorders helping researcher to determine the magnitude of social stigma and anxiety disorder among Covid-19 survivors in Kigali city.

As Covid-19 pandemic is still there and its survivors keep increasing date to date and even, more cases are reported from Kigali city. Therefore, target population in this study was Covid-19 patients recovered and discharged from Rwanda Covid-19 treatment centers and or from home based care for Covid-19 in Kigali City from 14 March 2020 to 31st July 2021 period. The estimated sample was 385 Covid-19 survivors and researcher added 10% which was considered as no response rate in this study, and the total sample size was 425 individuals.

Results

Those are socio-demographic characteristics of 425 respondents all reached and data collected using questionnaire through face to face interview.

The Table 1 shows that 215(50.6%) were male and 210(49.4%) were female. For marital status, the high number of participants are married with a total number of 238(56.0%) followed by single of 123(28.9%) while lowest number of 8(1.9%) are divorced. Around 144(33.9%) have secondary education level, 122(24%) have primary level of education while 59(13.9%) have university level of education. 287(67.5%) are living with a range of 3 to 5 household members.

Socio-economic characteristics

Socio-economic characteristics among Covid-19 survivors in Kigali city are presented in below Table 2.

The table above indicates that 160(37.6%) are currently employed and 125(29.4%) have their own business. 291(68.2%) had regular job before being diseased with Covid-19 and among them 97(22.8%) job didn't continue after recovery, means they lost their job because of Covid-19. 113(26.6%) of respondents have 3 bedrooms in the house while 115(27.1%) have 4 bedrooms.

The Level of social stigma in covid-19 survivors in Kigali City

The objective one was to determine the magnitude of social stigma among Covid-19 survivors in Kigali city and was measured by score assessment of variables as presented in the table below. Ten (10) statements in the Table 3 were used to determine the magnitude of socio-stigma and all statements are positive where the overall score is 30 and its mean is 13.63 for stigma. The scores are 0, 1, 2 and 3 for Not at all, a little, Moderate and A lot respectively.

Table 1: Socio-demographic characteristics of respondents.

Variables	Frequency	Percent
Gender		
Male	215	50.6
Female	210	49.4
Age in years (mean = 37.55 years)		
18 to 25	89	20.9
25-35	123	28.9
36-45	97	22.8
>45	116	27.3
Marital status		
Single	123	28.9
Married	238	56
Widower	37	8.7
Divorced	8	1.9
Separated	19	4.5
Educational level		
Illiterate	24	5.6
Primary	102	24
O'level	94	22.1
Secondary	144	33.9
University	59	13.9
Post graduate	2	0.5
Religion		
Christian	322	75.8
Muslim	54	12.7
No religion	43	10.1
Other	6	1.4
Household members		
1 to 2	83	19.5
3 to 5	287	67.5
6 and above	55	12.9

The table above of the stigma assessment shows that 151(35.5%) were a little felt out of place after testing positive for Covid-19. 123(28.9%) were moderately felt rejected, 154(36.2%) had fear a lot of getting closer to others and 103(24.2%) were moderately felt ashamed to be positive for Covid-19. 113(26.6%) were moderately felt disappointed to be positive for Covid-19 while 62(14.6%) had such feelings a lot. Both 25(5.9%) and 33(7.8%) were A lot treated unfairly at home and by neighbors respectively. 180(42.4%) of respondents felt a little disappointed in themselves because they had Covid-19 and 148(34.8%) their life spoiled moderately by having Covid-19 while 118(27.8%) didn't have confidence at all to disclose or to tell others that they had Covid-19.

Overall score of magnitude of social stigma in covid-19 survivors

As said above, ten (10) statements in the Table 3 were used to determine the magnitude of socio-stigma and all statements are positive where the overall score is 30 and its mean is 13.63 for stigma.

Table 2: Socio-economic characteristics.

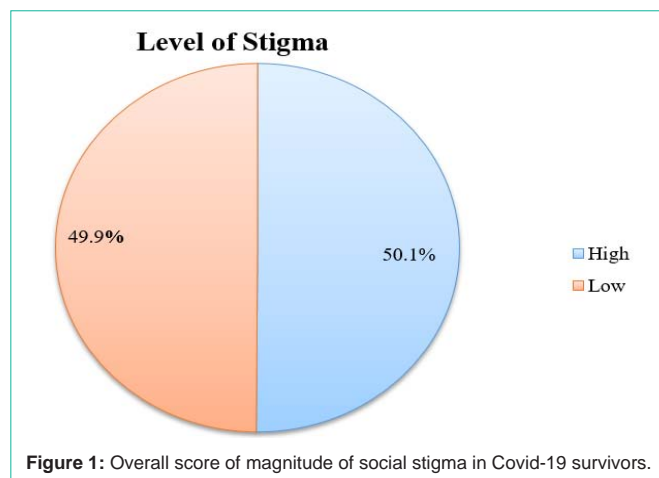| Variables	Frequency	Percentage
Current occupation		
Employed	160	37.6
Business	125	29.4
Farmer	9	2.1
Student	28	6.6
Retired	10	2.4
Household rooms		
1	24	5.6
2	59	13.9
3	113	26.6
4	115	27.1
5	59	13.9
6	43	10.1
>6	12	2.8
Having regular job before COVID-19		
Yes	291	68.5
Not	134	31.5
Job continued during COVID-19		
Yes	194	45.6
Not	97	22.8

Figure 1: Overall score of magnitude of social stigma in Covid-19 survivors.

of respondents felt nervous in several days and 56(13.2%) nearly every day were unable to control worries. More than half the days 109(25.6%) had been worried about different things while 110(25.9%) had trouble relaxing because of having Covid-19. Nearly every day 53(12.5%) had restlessness while 51(12%) used to be annoyed easily. Several days 128(30.1%) expected awful to happen, 115(27.1%) had difficult in falling asleep and broken ones while 58(13.6%) lost pleasure nearly every day in their hobbies.

Overall score of level of anxiety disorders in covid-19 survivors.

Ten (10) statements in the Table 4 were used to determine the magnitude of anxiety disorders and all statements are positive where the overall score is 30 and its mean is 12.78 for anxiety.

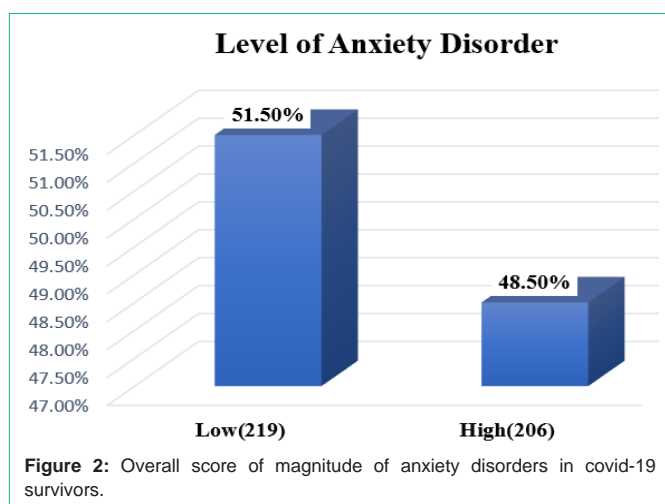The level of anxiety disorders in covid-19 survivors in Kigali city.

The objective two was to determine the magnitude of anxiety disorders among Covid-19 survivors in Kigali city and was measured by score assessment of variables as presented in the table below. Ten (10) statements in the Table 4 were used to determine the magnitude of anxiety disorder and all statements are positive where the overall score is 30 and its mean is 12.78 for anxiety. The scores are 0, 1, 2 and 3 for Not at all, several days, More than half days and nearly every day. The results are presented in Figure 2.

The anxiety assessment table above shows that 175(41.2%) of respondents felt nervous in several days and 56(13.2%) nearly

Almost a half of respondents 49.9% had low level of social stigma and another half of 50.1% had high level of social stigma as indicated in Figure 1.

The level of anxiety disorders in covid-19 survivors in Kigali city.

The objective two was to level the magnitude of anxiety disorders among Covid-19 survivors in Kigali city and was measured by score assessment of variables as presented in the table below. Ten (10) statements in the Table 4. 3 were used to determine the magnitude of anxiety disorder and all statements are positive where the overall score is 30 and its mean is 12.78 for anxiety. The scores are 0, 1, 2 and 3 for Not at all, several days, More than half days and nearly every day. The results are presented in Figure 2.

The anxiety assessment table above shows that 175(41.2%)

Table 3: Social stigma accounted by Covid-19 survivors in Kigali City.

Variables	Not at all, n(%)	A little, n(%)	Moderate, n(%)	A lot, n(%)
Feel out of place	53(12.5)	151(35.5)	110(25.9)	110(25.9)
Rejected	40(9.4)	154(36.2)	123(28.9)	108(25.4)
Fear of getting closer	81(19.1)	83(19.5)	107(25.2)	154(36.2)
Feeling ashamed	119(28)	131(30.8)	103(24.2)	72(16.9)
Feeling disappointed	126(29.6)	124(29.2)	113(26.6)	62(14.6)
Treated unfairly at home	151(35.5)	167(39.3)	81(19.1)	25(5.9)
Treated unfairly by neighbors	106(24.9)	182(42.8)	104(24.5)	33(7.8)
Feeling disappointed in yourself	100(23.5)	180(42.4)	99(23.3)	46(10.8)
Spoiled life	110(25.9)	148(34.8)	82(19.3)	85(20)
Confidence to disclose	118(27.8)	121(28.5)	135(31.8)	51(12)

Source: Primary data.

Table 4: Anxiety disorders accounted by Covid-19 survivors in Kigali City.

Variables	Not at all, n(%)	Several days, n(%)	More than Half days, n(%)	Nearly every day, n(%)
Feeling nervous	93(21.9)	175(41.2)	103(24,2)	53(12.5)
Unable to control Worrying	84(19.8)	181(42.6)	103(24.2)	56(13.2)
Worrying too much	86(20.2)	151(35.5)	109(25.6)	79(18.6)
Trouble relaxing	97(22.8)	140(32.9)	110(25.9)	78(18.4)
Restlessness	141(33.2)	128(30.1)	103(24.2)	53(12.5)
Easily annoyed	158(37.2)	125(29.4)	90(21.2)	51(12)
Expecting awful to Happen	132(31.1)	128(30.1)	102(24)	63(14.8)
Difficult to sleep	119(28)	115(27.1)	76(17.9)	115(27.1)
Poor memory	139(32.7)	109(25.6)	118(27.8)	59(13.9)
Lack of pleasure	138(32.5)	109(25.6)	120(28.2)	58(13.6)

Source: Primary data.

Figure 2: Overall score of magnitude of anxiety disorders in covid-19 survivors.

every day were unable to control worries. More than half the days 109(25.6%) had been worried about different things while 110(25.9%) had trouble relaxing because of having Covid-19. Nearly every day 53(12.5%) had restlessness while 51(12%) used to be annoyed easily. Several days 128(30.1%) expected awful to happen, 115(27.1%) had difficult in falling asleep and broken ones while 58(13.6%) lost pleasure nearly every day in their hobbies.

Overall score of level of anxiety disorders in covid-19 survivors.

Ten (10) statements in the Table 4 were used to determine the magnitude of anxiety disorders and all statements are positive where the overall score is 30 and its mean was 12.78 for anxiety.

As indicated in the Figure 2, the respondents 51.5% had low level of anxiety while remaining of 48% had high level of anxiety.

Discussion

The present study found that people who had job before having Covid-19 and lost their jobs after, 76.5% of them have high level social stigma and 23.5% of them have low level social stigma and this means that they faced financial crisis.

The some applies on stigma, where the study conducted from Kashmir, India found out that the stigma was significantly associated with occupation of the Covid-19 survivors [7] and another research conducted in Uganda, revealed that the prevalence of social stigma among Covid-19 pandemic survivors was explored and high [8].

This study also found out that people with few bedrooms counted to 1 to 3, 55.4% of them have high level social stigma and those who are married 52.1% of them have high level of social stigma.

The some applies on anxiety disorders, where study found that Widower, divorced and separated respondents are more likely to have anxiety disorders than married ones compared to single.

In the comparison with other study, the stated findings are not far from the one of the study conducted in China very recently, where researchers used social impact scale in two compared groups , highlighted the most contributing factors to the stigma among Covid-19 survivors notably social rejection, financial crisis, being survivor of Covid-19, living in the same house with Covid-19 infected person and being married status was also added to other factors accelerating social stigma among Covid-19 survivors [9]. Nearly the same study conducted in Iran which found out that People with poor families, limited resources, living in small house with few rooms, room sharing with siblings are found exacerbating factors of stigma among Covid-19 survivors [10].

Conclusion

The purpose of this study was to assess the level of social stigma and anxiety disorder among Covid-19 survivors in Kigali city. The finding of this study revealed that about a half of respondents presented the high level of social stigma and anxiety disorders in general. In this study, discontinued job has shown greater association of having stigma and anxiety and this means that they faced economic related challenges while they were sick and supposed to be confined to their houses. The result can't be generalized for whole country in consideration of the study design, sample size and the characteristics of study population in urban area which can differ from those characteristics in rural population.

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