Peertechz®

MEDICAL GROUP

ARCHIVES OF
Community Medicine and Public Health

ISSN: 2455-5479 DOI: https://dx.doi.org/10.17352/acmph

Research Article

The impact of the COVID-19 pandemic on quality of life and well-being in Morocco

Samlani Z[1], Lemfadli Y[1]*, Ait Errami A[1], Oubaha S[2] and Krati K[1]

[1]Gastroenterology Department, Mohammed VI University Hospital, Marrakech, Morocco

[2]Physiology Department, Faculty of Medicine and Pharmacy at Cadi Ayyad University, Marrakech, Morocco

Received: 02 July, 2020
Accepted: 09 July, 2020
Published: 10 July, 2020

***Corresponding author:** Dr. yassine Lemfadli, Gastroenterology Department, Mohammed VI University Hospital, Marrakech, Cady ayyad university, Marrakech, Morocco, Tel: 0663436557; E-mail: yassinelemfadli@gmail.com

ORCID: https://orcid.org/0000-0002-0877-3126

Keywords: Covid-19; Quality of life; Mental health; Physical health

https://www.peertechz.com

Check for updates

Abstract

Introduction: The majority of epidemiological reports focus on confirmed cases of COVID-19. In this study, we aim to assess the health and well-being of adults not infected with Covid-19 after two months of quarantine in Morocco.

Materials and methods: Two months after the declaration of quarantine in Morocco following the Covid-19 epidemic, we carried out a descriptive cross-sectional study of 279 Moroccan citizens. We used the Short Form Health Survey (SF-12) as a determinant of quality of life, which is based on eight dimensions of health. The data were collected using an electronic questionnaire distributed online. The participants also indicated their socio-demographic data, their knowledge and practices regarding the Covid-19 pandemic and whether they had chronic health problems.

Results: The quality of life of all participants was moderately disrupted during the Covid-19 pandemic with a mental health score (MCS) of 34.49 (± 6.44) and a physical health score (PCS) of 36.10 (± 5.82). Participants with chronic diseases scored lower with 29.28 (± 1.23) in mental health (MCS) and 32.51 (± 7.14) in physical health (PCS). The seriousness of COVID-19 has an impact on the quality of life and health well-being of people and this impact is more marked in people with chronic health problems.

Conclusion: Our results confirm the need to pay attention to the health of people who have not been infected with the virus. Our results also point out that uninfected people with chronic illnesses may be more likely to have well-being problems due to quarantine restrictions.

Introduction

The appearance of a new coronavirus disease (COVID-19) was first reported in December 2019 in Wuhan, China [1]. The number of cases has increased exponentially not only in China but in the world. The Moroccan health authorities announced the first confirmed case of Covid-19 on March 2, 2020. COVID-19 was officially declared a pandemic by the world health organization on March 11, 2020 [2]. From December 2019 until the time of writing this article, 11, 4 million cases of COVID-19 have been confirmed worldwide and more than 535 000 people have died [3]. This pandemic has put global public health institutions on alert [4-6]. Morocco, like many countries in the world, declared a state of health emergency and quarantine on March 20, 2020.

Admittedly, quarantine and the state of health emergency have a great interest in controlling the spread of the pandemic [7]. However, it is also important to understand the implications of these restrictions on the health and well-being of the community.

We hypothesized that health-related quality of life is more likely to be affected during the COVID-19 pandemic.

Therefore, we aim in this study to provide an analysis of the health and well-being of a sample of the general population during the quarantine period.

Materials and methods

Characteristics of the participants

We conducted a descriptive cross-sectional online survey

Citation: Samlani Z, Lemfadli Y, Errami AA, Oubaha S, Krati K (2020) The impact of the COVID-19 pandemic on quality of life and well-being in Morocco. Arch Community Med Public Health 6(2): 130-134. DOI: https://dx.doi.org/10.17352/2455-5479.000091

about two months after the declaration of quarantine and the COVID-19 state of emergency in Morocco. All participants were adults over the age of 18, resident in Morocco who were not epidemiologically infected with the virus, but they lived in places affected by COVID-19. To have a representative national sample and cover people in areas of varying severity of COVID-19, we interviewed citizens across the 12 regions of Morocco.

Study procedure

Given the circumstances of the quarantine, the study announcements, containing brief information about the study and a link to a web page, were shared by e-mail (to personal and professional networks), and published on Facebook and other popular social media websites, including Twitter and Instagram. The online survey was administered by Google Forms to ensure wide reach and easy access. Participants were asked to share the survey with their families and acquaintances.

Responses to all elements of the questionnaire were required, and respondents could only submit their responses if all questions were answered. The data reported in this study was collected between May 25 and June 6, 2020.

Participation was voluntary and all participants gave informed consent electronically and without any remuneration for their participation. No identifying information was collected to protect the anonymity of participants.

Variables studied

Participants provided their socio-demographic characteristics, such as gender, age, education and residence (region and city) as well as their knowledge and practices regarding the Covid-19 pandemic. Given that COVID- 19 is more dangerous for people with co-morbidities [8], so we asked if the participants had a chronic disease.

We assessed individual health using the Short Form-12 (SF12). We used a Moroccan version validated in Arabic and French [9]. SF12 contains 12 elements and 8 dimensions: physical activity (2 elements), limitations due to physical activity (2 elements), physical pain (1 element), perceived general health (1 element), vitality (1 element), social functioning (1 element), limitations due to mental state (2 elements) and mental health (2 elements) [10]. The eight dimensions form two physical and mental subscores (PCS and MCS), with a possible total score ranging from 0 to 100 [11]. A higher SF12 score indicates better health.

Statistical analyzes

We report descriptive statistics of the study variables. The analyzes were performed by IBM SPSS Statistics v 21. We used the t-student test to compare the means of the summary physical and mental scores of the SF-12, after having checked the normality of the distribution of the two scores. The materiality threshold was set at 0.05.

Results

279 participants responded to the survey. Table 1 presents the descriptive characteristics of the participants. The average age was 34.75 years (± 11.8). The majority of participants were men (51.6%), singles (66.3%) and those with a university level (88.9%). All regions were represented. The Marrakech – Safi region was the most represented (25.40%). 13.3% of the participants indicated that they have a family member or know a loved one with a confirmed Covid-19 infection. 10.40% of the participants reported that they suffered from chronic diseases.

Regarding participants' knowledge of Covid-19 (Table 2): 76.4% think it is a dangerous disease and 30% think it is fatal in 15 to 40% of cases. 90% believe that transmission is through the droplets of an infected person. The most vulnerable group according to participants is the elderly and people with chronic diseases in 87.1% and 91.8% of the responses respectively. The majority of respondents reported fever, cough and difficulty breathing as major symptoms of the disease in 95.7%, 93.2% and 88.5% of the responses. 62.70% of participants believe that there is no specific current treatment for Covid-19 infection.

Table 1: description of participants (n = 279).

		Number of participants	Percentage
Age (years)	Age (years) Mean ± SD Extremes (years)	29.03 ± 9.85 18 – 68	-
Gender	Male Female	144 135	51.60% 48.40%
Marital status	Single Married Divorced Widower	185 90 4 0	66.30% 32,30% 1,40% 0 %
Education level	Unschooled Primary Secondary University	0 2 29 248	0% 0.71% 10.39% 88.90%
Residence	Urban Rural	246 33	88.2% 11.8%
Region	Tangier-Tetouan-Al Hoceïma region Oriental region Fez-Meknes region Region of Rabat-Salé-Kénitra Béni Mellal-Khénifra region Casablanca-Settat region Marrakech-Safi region Drâa-Tafilalet region Souss-Massa region Guelmim-Oued Noun region Laâyoune-Sakia El Hamra region Dakhla-Oued Ed Dahab region	13 4 14 26 68 34 71 8 27 6 5 3	4.70% 1.40% 5 ,00% 9.30% 24.40% 12.20% 25.40% 2.80% 9.70% 2.20% 1.80% 1.10%
Chronic disease	Yes No	29 250	10.40% 89.60%
Covid-19 infection confirmed in family member or relative	Yes No	37 242	13.30% 86.70%

Citation: Samlani Z, Lemfadli Y, Errami AA, Oubaha S, Krati K (2020) The impact of the COVID-19 pandemic on quality of life and well-being in Morocco. Arch Community Med Public Health 6(2): 130-134. DOI: https://dx.doi.org/10.17352/2455-5479.000091

95.69% of participants believe that wearing a mask is effective in preventing Covid-19 infection.

Concerning the practices of the population in the face of the Covid-19 pandemic (Table 3): The majority of participants (96.77%) report that they follow the health recommendations for coronavirus and 75.95% comply with the quarantine recommendations in more than 80% (Figure 1). 90.32% of the respondents report that they always wear the mask when leaving the house. 97.50% of participants wash their hands daily at least with soap and water.

Participants' fear of catching the coronavirus was assessed using an increasing numerical scale from 1 to 10 (Figure 2). 60.6% of the participants reported a fear less than or equal to 5 degrees.

Table 2: Participants' knowledge of the Covid-19 (n = 279).

		Number of participants	Percentage
Do you think Covid-19 is a serious disease?	Yes	213	76.40%
	No	33	11.80%
	I do not know	33	11.80%
How are people infected with COVID-19?	By droplets	249	89.24%
	By contact with infected surfaces	264	94.62%
	Eating bats	84	30.10%
	By blood	78	27.95%
	By air	134	48.02%
People most vulnerable to covid-19 infection	Infants	72	25.80%
	Children	55	19.70%
	Young adults	72	25.80%
	Pregnant woman	105	37.60 %
	The elderly	243	87.10%
	People with chronic diseases	256	91.80%
Symptoms of Covid-19	Fever	267	95.70%
	Dry cough	247	88.50%
	Headache	208	74.60%
	Stuffy nose	82	29.40%
	Runny nose	97	34.80%
	Sneeze	144	51.60%
	Difficulty breathing	260	93.20%
	Abdominal pain	89	31.90%
	Diarrhea	158	56.60%
	Asymptomatic	219	78.50%
Treatment of Covid-19	There is an effective treatment for the virus	30	10.75%
	There is only symptomatic treatmen	175	62.72%
	There are drugs in the testing phase	224	80.20%
	A vaccine has been developed	20	7.16%
	Antibiotics are effective	65	23.30%
Prevention of Covid-19 infection is based on?	wearing a mask	267	95.69%
	avoid crowded places	274	98.20%
	Isolation of infected people	274	98.20%
	Isolation of suspected people	272	97.49%
	Healthy eating	153	54.84%
	Use of herbal remedies	43	15.41%
The Covid-19 is deadly in?	Less than 10% of cases	150	53.76%
	10 to 40%	63	22.58%
	40% 60%	31	11.11%
	60 to 85%	22	7.89%
	Over 85% of cases	13	4.66%

Table 3: Practices of participants regarding the Covid-19 pandemic (n = 279).

		Number of participants	Percentage
Search for medical information on Covid-19 to stay up to date with the latest news	Yes	233	83.51%
	No	46	16.49%
Compliance with official recommendations against the pandemic	Yes	270	96.77%
	No	9	3.23%
Daily hand washing at least with soap	Yes	272	97.50%
	No	3	1.07%
	Sometimes	4	1.43%
Wearing a mask outside	Yes	252	90.32%
	No	11	3.95%
	Sometimes	16	5.73%
Percentage of compliance with quarantine	0 %	2	0.72%
	10-20%	11	3.94%
	20-30%	4	1.44%
	30-40%	2	0.72%
	40-50%	1	0.36%
	50-60%	11	3.94%
	60-70%	10	3.60%
	70-80%	26	9.33%
	80-90%	64	22.95%
	90-100%	148	53%

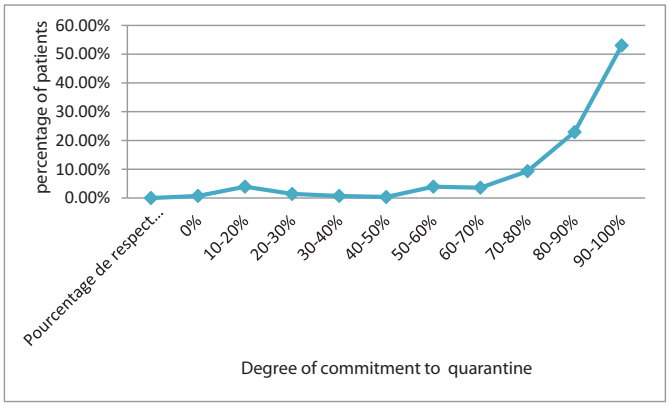

Figure 1: Level of commitment of participants in quarantine.

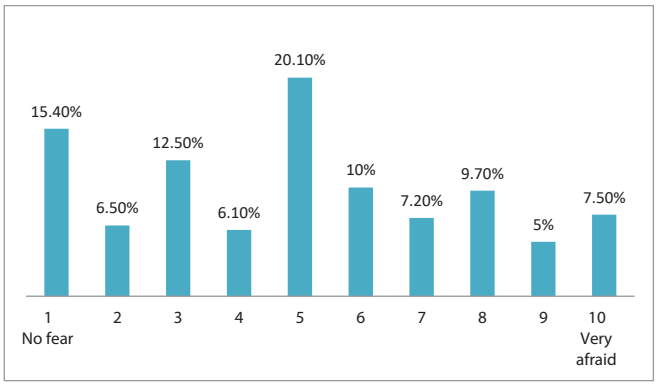

Figure 2: Level of fear of Covid-19 participants.

Based on the SF12 algorithm [9], all participants obtained a total average score of 70.60 (±13.1) with a mental health score (MCS) of 34.49 (±6.44) and a physical health score (PCS) of 36.10 (± 5.82). The physical (PCS) and mental (MCS) scores of participants with chronic diseases were 32.51 (±7.14) and 29.28 (±1.23), respectively (Table 4).

Citation: Samlani Z, Lemfadli Y, Errami AA, Oubaha S, Krati K (2020) The impact of the COVID-19 pandemic on quality of life and well-being in Morocco. Arch Community Med Public Health 6(2): 130-134. DOI: https://dx.doi.org/10.17352/2455-5479.000091

Overall, the participants' PCS and MCS scores suffered from chronic diseases and the elderly participants were lower than those of young participants without comorbidities (Figure 3).

Table 4: Quality of life results by SF12 (n = 279).

Age		Participants without chronic diseases	Participants with chronic diseases
Less than 40 years old	PCS (average)	49,55	39,19
	MCS (average)	44,63	28,36
	Total Score (average)	94.18	67.55
Between 40 and 60 years old	PCS (average)	36,05	35,62
	MCS (average)	42,03	31,03
	Total Score (average)	78.08	66.65
Over 60 years	PCS (average)	33,5	22,74
	MCS (average)	32,48	28,45
	Total Score (average)	65.98	51.19

MCS: Mental Component Summary; PCS: Physical Component Summary

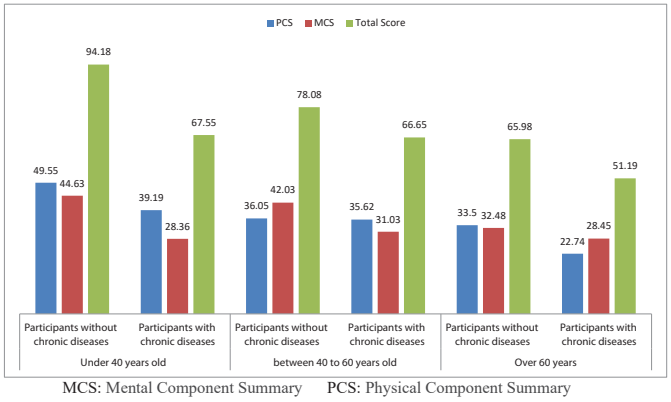

Figure 3: Quality of life score for participants according to age and the presence of comorbidities.

Discussion

Restrictive measures applied in several countries around the world appear to be effective in containing the spread of COVID-19 [7]. However, these measures have disrupted people's daily employment and daily activities and can therefore have important implications for their health and well-being [12].

As was the case previously with the Middle East respiratory syndrome coronavirus (MERS-CoV) [13,14], the COVID-19 pandemic also causes panic and mental health problems for the general population [15-17]. In addition, quarantine could affect the psychological health of the public [18,19]. This can influence the general health and quality of life of people.

People with chronic health conditions are vulnerable populations with a lower quality of life during this Covid-19 crisis [20]. However, health systems have largely neglected this fragile population [21].

Our results show that the quality of life linked to the general health of people in quarantine is poor and especially if there are chronic health problems, as shown by SF12. Insignificant differences in some dimensions of SF12 (body pain, physical functioning and social functioning) were present, since people who had not been directly affected by the virus would not differ much in these dimensions.

An article published on Lancet pointed out that people in quarantine have reported a high prevalence of symptoms of distress and psychological disorders and some of these symptoms seem to persist long after quarantine [22].

We may need to pay more attention to those affected and those with co-morbidities, but also physically active people, who may be more frustrated with the quarantine restrictions. Such identification can help health systems prioritize those who may have more impact during this health crisis.

We present this data on general quality of life disruptions to provide evidence on the health of the community during this Covid-19 crisis.

The study has certain limitations. First of all, this study was based on a cross-sectional observation survey. The data do not allow conclusions to be drawn about the nature or the orientation of the associations examined. We also do not know whether this lower quality of life existed before COVID-19.

Likewise, online self-assessment questionnaires may be influenced by the difficulty of completing them. This could affect the validity of the data provided.

Given our recruitment methods and our sample size, the results may not be generalized to the entire population of Morocco and other countries. Nevertheless, the hypotheses reported could be targets for future studies.

Conclusion

The results underscore the importance of social ties to mitigate the negative consequences of the COVID-19 pandemic on mental health and physical well-being. Policymakers managing the COVID-19 pandemic can benefit from understanding these implications for the health and well-being of the population, especially the elderly and those with chronic diseases.

References

1. Ren LL, Wang YM, Wu ZQ, Xiang ZC, Guo L, et al. (2020) Identification of a novel coronavirus causing severe pneumonia in human: A descriptive study. Chin Med J 133: 1015-1024. Link: https://bit.ly/3fdMHat

2. World Health Organisation (2020) WHO Director-General's Opening Remarks at the Media Briefing on COVID-19–7. Link: https://bit.ly/38D08hW

3. World Health Organisation (2020) WHO Director-General's Opening Remarks at the Media Briefing on COVID-19–7. Link: https://bit.ly/38D08hW

4. Wang C, Horby PW, Hayden FG, Gao GF (2020) A novel coronavirus outbreak of global health concern. Lancet 395: 470-473. Link: https://bit.ly/2VZy5nR

5. Thompson R (2020) Pandemic potential of 2019-nCoV. Lancet Infect Dis 20: 280. Link: https://bit.ly/2VXVzJJ

6. Wu JT, Leung K, Leung GM (2020) Nowcasting and forecasting the potential domestic and international spread of the 2019-nCoV outbreak originating in Wuhan, China: A modelling study. Lancet 395: 689-697. Link: https://bit.ly/2ZgPA5b

Citation: Samlani Z, Lemfadli Y, Errami AA, Oubaha S, Krati K (2020) The impact of the COVID-19 pandemic on quality of life and well-being in Morocco. Arch Community Med Public Health 6(2): 130-134. DOI: https://dx.doi.org/10.17352/2455-5479.000091

7. Bedford J, Enria D, Giesecke J, Heymann DL, Ihekweazu C, et al. (2020) COVID-19: towards controlling of a pandemic. Lancet 395: 1015-1018. Link: https://bit.ly/2WhGvXV

8. Gates B (2020) Responding to Covid-19—A once-in-a-century pandemic?. New Engl J Med 382: 1677-1679. Link: https://bit.ly/2BS9vhJ

9. Hicham Sehli M (2007) Adapatation transculturelle du questionnaire SF-12. Thèse doctorat médecine, Fès 39.

10. Ware J, Kosinski M, Keller SD (1996) A 12-Item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. Med Care 34: 220-233. Link: https://bit.ly/3f8DX5A

11. Ware JE, Kosinski M, Turner-Bowker DM, Gandek B (2002) Quality Metric Incorporated. How to score version 2 of the SF-12 Health Survey (with a supplement documenting version 1) Lincoln: Quality Metric Inc.

12. Galea S, Merchant RM, Lurie N (2020) The mental health consequences of COVID-19 and physical distancing: the need for prevention and early intervention. JAMA Internal Medicine. Link: https://bit.ly/2DiRtFG

13. Jack A (2015) Why the panic? South Korea's MERS response questioned. BMJ (Clin. Res. Ed.) 350: h3403. Link: https://bit.ly/3fp2WI6

14. Abdel-Moneim AS (2015) Middle-East respiratory syndrome coronavirus: Is it worth a world panic? World J Virol 4: 185-187. Link: https://bit.ly/3gJxTkC

15. Zhang SX, Wang Y, Rauch A, Wei F (2020) Health, distress and life satisfaction of people in China one month into the COVID-19 outbreak. Psychiatry Res 288: 112958. Link: https://bit.ly/3iI65Pb

16. Bao Y, Sun Y, Meng S, Shi J, Lu L (2020) 2019-nCoV epidemic: Address mental health care to empower society. Lancet 395: e37-e38. Link: https://bit.ly/2W0kQDj

17. Xu Z, Li S, Tian S, Li H, Kong LQ (2020) Full spectrum of COVID-19 severity still being depicted. Lancet 395: 947-948. Link: https://bit.ly/3fcPSzf

18. Shimizu K (2020) 2019-nCoV, fake news, and racism. Lancet 395: 685-686. Link: https://bit.ly/3eduzfV

19. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, et al. (2020) The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. Lancet 395: 912-990. Link: https://bit.ly/3fbts1y

20. Nguyen HC, Nguyen MH, Do BN, Tran CQ, Nguyen TTP, et al. (2020) People with suspected COVID-19 symptoms were more likely depressed and had lower health-related quality of life: The potential benefit of health literacy. J Clin Med 9: 965. Link: https://bit.ly/38FO5jL

21. Peter LS, Shah E, Leon G, Martin M (2020) Bearing the brunt of covid-19: older people in low and middle income countries. BMJ 368: m1052. Link: https://bit.ly/2Dm83o9

22. Wang C, Horby PW, Hayden FG, Gao GF (2020) A novel coronavirus outbreak of global health concern. Lancet 395: 470-473. Link: https://bit.ly/2O7M32H

Discover a bigger Impact and Visibility of your article publication with Peertechz Publications

Highlights

- Signatory publisher of ORCID
- Signatory Publisher of DORA (San Francisco Declaration on Research Assessment)
- Articles archived in worlds' renowned service providers such as Portico, CNKI, AGRIS, TDNet, Base (Bielefeld University Library), CrossRef, Scilit, J-Gate etc.
- Journals indexed in ICMJE, SHERPA/ROMEO, Google Scholar etc.
- OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting)
- Dedicated Editorial Board for every journal
- Accurate and rapid peer-review process
- Increased citations of published articles through promotions
- Reduced timeline for article publication

Submit your articles and experience a new surge in publication services (https://www.peertechz.com/submission).

Peertechz journals wishes everlasting success in your every endeavours.

Copyright: © 2020 Samlani Z, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Citation: Samlani Z, Lemfadli Y, Errami AA, Oubaha S, Krati K (2020) The impact of the COVID-19 pandemic on quality of life and well-being in Morocco. Arch Community Med Public Health 6(2): 130-134. DOI: https://dx.doi.org/10.17352/2455-5479.000091