

COVID -19 and Stress Management

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Abstract

Original Research Article

Introduction: The COVID19 pandemic is causing panic, depression and especially stress. People are living between hopes of finding a solution to their health and socio-economic problems that this virus has managed to disrupt and feelings of hopelessness where there is no clarity about the end of this crisis. This study aims to find out how well the Moroccan population is coping with stress during the pandemic and how they are doing. **Material and Methods:** This is a descriptive and analytical observational study carried out using an online questionnaire that collects declarative and quantifiable data. The questionnaire was developed based on the world health organization recommendations for coping with stress. Statistical analysis will be performed using SPSS software. **Results:** A total of 219 participants were recruited in the study, 51.8% of the participants were unable to manage their stress and only 48.2% were able to do so. The means most practiced by the participants during the pandemic were: prayer or meditation 63.7%, staying busy (reading....) 60.5%, keeping social contacts 60.4%, having clear information about the pandemic 58.6%, keeping a stable diet 52.7%, seeing the positive sides of the containment 51.8%. **Conclusion:** the study allows evaluating the practices and means of coping with stress during the COVID-19 pandemic. Much remains to be done to understand the effects of this global crisis on mental health and to inform clinical assessment and intervention.

Keywords: Covid19, stress, coping, management, practices.

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INTRODUCTION

Since January 30, 2020, the COVID-19 epidemic has been identified as an international public health emergency and qualified as a pandemic on March 11, 2020 [1]. In Morocco, and after the identification and escalation of new cases, the country officially entered into mandatory health containment on March 20 as in other affected countries to address the pandemic and stop the spread. In addition to the enormous physical health burden, the pandemic has had profound psychosocial effects, including interpersonal, occupational and financial stresses. At the individual level, people are more likely to fear getting sick or dying, to feel helpless, and to be stereotyped by others [2]. with the potential to significantly increase rates of depression and anxiety. Because of the pathogenicity of the virus, the speed of spread and the resulting high mortality rate, COVID-19 can affect the mental health of individuals at many levels of society, ranging from infected patients and health care workers to families, children, students, patients with mental illnesses and even workers in other sectors [3, 4]. At the individual level, people are more likely to fear getting sick or dying, to feel helpless, and to be stereotyped by others

with the potential to significantly increase rates of depression and anxiety [2]. Because of the pathogenicity of the virus, the speed of spread and the resulting high mortality rate, COVID-19 can affect the mental health of individuals at many levels of society, ranging from infected patients and health care workers to families, children, students, patients with mental illnesses and even workers in other sectors [3, 4]. Recent evidence suggests that people who are kept in isolation and quarantine experience significant levels of anxiety, anger, confusion and stress [5]. Overall, all studies that have examined psychological disorders during the COVID-19 pandemic have indicated that those affected showed several symptoms of mental trauma, such as emotional distress, depression, stress, mood swings, irritability, insomnia, attention deficit hyperactivity disorder, post-traumatic stress and anger [5, 6]. Data from China, for example, suggest that 25% of the general population experienced moderate to severe levels of stress or anxiety-related symptoms in response to COVID-19 [7, 8]. Unfortunately, in the current situation, it is difficult to predict the psychological and emotional consequences of COVID-19. There is no formula for how to cope with the pandemic. Nevertheless, the world health organization

department of mental health and substance abuse has developed some recommendations and coping practices aimed at reducing and managing stress and promoting mental and psychosocial well-being in different groups of people during the pandemic [9].

The objective of this study is to find out how well the Moroccan population manages and reduces stress during the COVID-19 pandemic and the means to achieve it.

MATERIAL AND METHODS

The study is carried out from a questionnaire developed and published online on different social networks between April and May 2020; the development of the questionnaire was carried out from the recommendations of the world health organization to cope with stress.

There are 2 themes addressed in the questionnaire: The first relating to: socio-demographic and professional characteristics (gender, habitat, age, occupation, marital status, level of education) and medical history. The second theme: To know how well the participants manage their stress from a direct question on their ability to reduce stress and the practices that help them: physical activity, social activity, diet, prayer and meditation; to see the positive sides of the confinement, the increase in the consumption of psychoactive substances and the ability to have clear information on the pandemic without being too exposed to the media.

The sample was randomly selected. At the end of the survey, the answers to the questionnaire were exported to an Excel spreadsheet in order to be processed with SPSS statistical processing software. First, we performed a univariate quantitative analysis through a flat sort of all the variables of the study. The values are presented in percentages in the tables. In a second step, we performed a bivariate analysis (correlations between two variables) in 2 steps: A search for correlations between sociodemographic variables and the ability to reduce stress, and between stress management and the practices used. The qualitative variables were tested with a Chi-2 test. The significance threshold (p-value) was 0.05.

RESULTS

1. sociodemographic characteristics and background:

A total of 219 participants were recruited into the study. Concerning the socio-demographic characteristics, Table 1 Our sample is characterized by a predominance of females (74%) against 26.4% of males with a median age of 30 years. 55.4% of the participants are married and 40.5% single. The majority of participants live in urban areas 96.8% and only 3.2% live in rural areas. For the level of education 88.2% of

the participants had a higher level of study and 3.6% had a primary level. The professional situation or status was either telecommuting, in the field, laid off or other. Almost half of the participants 49% work in the field; 30.2% of the participants telework and 12.8% have lost their jobs. Concerning the personal history of the participants: 77.7% had a psychiatric history and only 18.6% had a substance use disorder.

1. Coping with stress:

We notice from Table 2 that more than half of the participants 51.8% do not manage their stress according to their opinion. However, 48.2% are able to do so.

The most used practices and means are mainly: prayer or meditation 63.7%, staying busy (reading....) 60.5%, keeping social contacts 60.4%, having clear information about the pandemic 58.6%, keeping a stable diet 52.7%, and even the positive sides of confinement 51.8%. 44.5% of the participants kept a good sleep rhythm. The majority of the participants 70.9% did not manage to limit the time in front of the screens. Only 21.4% participated in solidarity activities and 17.3% practiced physical activity. One participant out of 12 (8.6%) increases the consumption of psychoactive substances as a means to reduce stress.

2. Correlations between the answers to the questionnaire:

- Correlations between socio-professional variables and stress management:

Sex, age, marital status and living environment were not significantly correlated with stress management (Table 3). Education level was significantly correlated with stress management (p-value=0.006); the higher the education level of the participants, the better they were able to manage stress. Occupational status was significantly correlated with stress management (p-value=0.01); participants who teleworked were more likely to reduce stress 73% versus 22.8% who were off work. Regarding psychiatric history and addictive behaviors: there is no significant correlation with stress management.

- Correlations between stress management and practices used:

All practices used by the participants were significantly correlated with stress management (p-value < 0.0001) (Table 4). The majority of the participants that they limited the time in front of the screens manage to decrease their stress 92%. 89.5% of the participants that they practiced a physical activity could reduce their stress. 85.8% that they could see the positive sides of the confinement could reduce their stress. 61.2% of the participants that they practiced prayer and meditation could manage their stress

Table 1: Socio-demographic characteristics and background N: 219

Gender:	
male	26,4%
female	73,6%
Age:	
18-20	4,1%
21-30	29,5%
31-40	36,8%
41-50	13,2%
51-60	10,2%
>61	5,5%
Marital status:	
Single	40,5%
Divorced	2,7%
Married	55,4%
Widowed	1,4%
Living environment	
Rural	3,2%
Urban	96,8%
Education Level:	
Primary	3,6%
Secondary	8,2%
Higher	88,2%
Current work status	
Telecommuting	30,2%
In the field	49%
Laid off	12,8%
Other	8%
Psychiatric history:	
yes	22,3%
No	77,7%
Additive behaviors:	
yes	18,6%
No	81,4%

Table 2: Practices for coping with stress:

Practices	
Praying or meditating	63,7%
Staying busy (reading...)	60,5%
Keep social contacts	60,4%
Clear information about the epidemic:	58.6 %
Stable diet	52.7%
Positive aspects of confinement	51,8%
Good sleep pattern	44.5%
Limit screen time	29,1%
Solidarity actions	21,4%
Playing sports	17,3%
Increase in the use of psychoactive substances	8.6%

Table 3: Correlations between socio-professional and stress management

	stress management		p
	yes	No	
Gender			
Male	43,1%	56,9%	0,3
Female	50,3%	49,7%	
Age:			
18-20	66,6%	33,4%	0,07
21-30	50,7%	49,3%	
31-40	56,2%	43,8%	
41-50	41,3%	58,7%	
51-60	29,1%	70,	
>61	25%	75%	
Marital status:			
Single	47,7%	52,3%	0,3
Divorced	50%	50%	
Married	50%	50%	
Widowed	0%	100%	
Living environment			
Rural	28,5%	71,5%	0,2
Urban	49%	51%	
Education level:			
Primary	25%	75%	0,006
Secondary	16,7%	83,3%	
Higher	52,3%	47,7%	
Current work status			
Telecommuting	73%	27%	0,01
In the field	46,5%	53,5%	
Laid off	22,8%	77,2%	
Other	30,7%	69,3%	
Psychiatric history:			
Yes	56,3%	43,7%	0,2
No	46,2%	53,8%	
Additive behaviors:			
Yes	56,1%	43,9%	0,2
No	46,6%	53,4%	

Table 4: Correlations between stress management and practices used:

	stress management		P
	yes	No	
Limit screen time	92%	8%	<0,001
Playing sports	89,5%	10,5%	<0,001
Positive aspects of confinement	85,8%	14,2%	<0,001
Solidarity actions	80,9%	19,1%	<0,001
Stable diet	76,5%	23,5%	<0,001
Good sleep pattern	76,3%	23,7%	<0,001
Clear information about the epidemic	75,7%	24,3%	<0,001
Stayed busy (reading...)	74,2%	25,8%	<0,001
Increased use of psychoactive substances	73,7%	26,3%	0,02
Keeping social contacts	70,5%	29,5%	<0,001
Pray or meditate	61,2%	38,8%	<0,001

DISCUSSION

Regarding the results, gender, age, marital status and living environment were not significantly correlated with stress management in our study; unlike other studies. According to Klaiber *et al*, 776 Canadian and US adults aged 18 to 91 years found an association between age and affective reactivities to stressors and

positive events during the first weeks of the pandemic; compared to older adults (>65 years) young and middle-aged adults were more concerned about the threat of COVID-19 to multiple life domains: emotional well-being, their finances, and their career goals. In the early weeks of the pandemic, older subjects showed greater emotional well-being and less reactivity to stressors. Older adults report higher levels of coping

effectiveness, compared to younger adults. Older age is associated with less interpersonal conflict, family and work/school stressors, but more "other" stressors. Middle-aged adults had more positive face-to-face social interactions, while older subjects had fewer positive work/school events, but more positive long-distance social interactions, time spent in nature [10].

Our study finds a correlation between professional status and stress management. The participants who were laid off or stopped working found it very difficult to reduce their stress, which indicates the importance and the role of the profession in stress. Several studies [11-13] identify financial difficulties as the main causes of human stress. Job loss, unemployment, downsizing and wage minimization are linked to stress, depression, and even suicide. Financial resources allow individuals to have the time and means to connect with loved ones, which underscores the importance of considering poverty as a risk factor for social isolation and thus poor coping and stress management.

For the means and practices applied by the participants; limiting screen time and media exposure is strongly correlated with stress management 92%. The American Institute of Stress identifies media overload as a stressor [14]; the intense media coverage and public interest in COVID-19 updates reflects the global concern of this pandemic. However, people's reliance on mass media during the crisis in search of information makes them more sensitive; repeated exposure to massive information (infodemia) directly influenced social responses and disrupted government efforts to contain it. Junling et al find a high prevalence of mental health problems: depression 48.3% and anxiety and stress 22.6% which have been positively associated with frequent media exposure [15]. Be selective in taking what helps to prepare to manage the pandemic and protect themselves and their loved ones. This can start with fighting the infodemia by monitoring and filtering out false information.

Isolation is one of the stressors; quarantined individuals need to be informed about what they can do to avoid boredom and receive practical advice on coping and stress management techniques [16]. Social networks could play an important role in communicating with the estranged, allowing quarantined individuals to keep loved ones informed of their situation and to reassure them. Our results concur with these studies and show the role of social contact in stress management. There is evidence to suggest that support groups specifically for people who have been quarantined at home during peak illnesses can be helpful. Pan et al found that having such a group and feeling connected to others who had been through the same situation could be a good experience that can provide people with needed support [17].

The most common practices used by participants in our study were: prayer or meditation; staying busy (reading....); keeping social contacts; having clear information about the pandemic; keeping a stable diet; and seeing the positive sides of containment. Physical activity was the least used practice by participants. In a study by Shechter *et al.*, on Coping Behaviors of New York Health Care Workers during the COVID-19 pandemic found that 80% of participants reported engaging in at least one type of coping behavior to manage stress: Physical activity and exercise were the most commonly cited behaviors (59%), religion and/or spirituality (23%), yoga (25%), and/or meditation (23%). Participants also reported engaging in talk therapy (26%) and virtual support groups (16%) [18].

In our study, there are several limitations due to the survey method, which may explain the low rate of participants: first, it is necessary to have a regular internet connection to answer the questionnaire, which is not always the case. Secondly, the problem of illiterate people is that they cannot answer the questionnaire.

CONCLUSION

The Covid-19 crisis has the potential to reshape our world in dramatic ways, for better or worse. Our study helps to assess practices and ways of coping with stress during the Covid-19 pandemic. Much work remains to be done to understand the effects of this global crisis on mental health and to inform clinical assessment and intervention. It may require us to reconsider ourselves and rediscover a better version: empathy, compassion, solidarity, altruism, generosity of spirit and action.

Conflict of interest: There are no conflicts of interest to declare by any of the authors of this study.

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