

Original article

Impact of the Covid-19 pandemic on the psychological health of patients in the province of Kenitra of Morocco

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Abstract:

Objectives: The objective of this work is to assess the psychological impact of Covid-19 through the study of all variables likely to influence the mental health of patients declared positive for Covid-19. This investigation aims to integrate a protocol of psychological therapeutic follow-up of patients, which is as essential as medical follow-up. **Methods:** Analytical study of the psychological impact of Covid-19 on patients treated in a health center in the province of Kenitra of Morocco over a period of 6 months. **Results:** The follow-up of patients declared positive for Covid-19, reveals that, although the majority have never had a psychological or psychiatric history, 38% have stress, 49% anxiety and 51% sleep disorders. **Conclusion:** The study shows that the Covid-19 pandemic generates alongside the physical symptoms, a significant psychological impact on patients characterized by anxiety, insomnia and post-traumatic stress. Therefore, care integrating the psychological follow-up of patients is necessary.

Keywords: Covid-19; psychology, stress; anxiety; sleep; Kenitra; Morocco.

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Introduction:

As of January 2020, Sars-CoV-2 infection has been spreading very rapidly globally since then, despite population containment measures. Hospitals are then faced with a massive influx of patients with more or less severe forms of the disease.

In addition to the pathological aspect of the disease, there is the problem of mental health. Indeed, the

pandemic is reflected in a psychological impact due to the confinement on the general population and on vulnerable people, especially those suffering from mental disorders, as well as on caregivers and naturally on patients who test positive ¹.

The stress generated by the Covid-19 pandemic is thus added to an already high psychological suffering. Faced with an unanticipated and little-

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known threat, the organization of health care is disrupted. The Covid-19 pandemic highlights the fragilities of the system, but also the vulnerability of humans. This last variable has, moreover, always tends to be neglected.

The objective of this study is to carry out research through a medical-psychological follow-up of patients declared positive for Covid-19 in the province of Kenitra in Morocco, the results of which can contribute to formulating preventive health intervention measures and adequate monitoring of psychological problems related to Covid-19.

Materials and Methods:

The present study consists of an analysis of the psychological factors related to the Covid-19 infection, of patients declared positive in the province of Kenitra and presented to the medical center “Massira” for their care during the period from 01/06/2020 to 31/12/2020.

The sample size is considered to be exhaustive as the study is determined based on the consecutive recruitment of cases meeting the inclusion criteria.

The collection of data on sociodemographic variables, context, contamination conditions and monitoring are carried out through investigation sheets, medical records of patients and individual study instruments that consist of the perceived stress scale and the scale of inappropriate early patterns (so-called emergency short version) [2,3].

The choice of psychological tests as an instrument for collecting data makes it possible to reach as many people as possible to be interviewed, to strictly respect the rules of confidentiality and to collect more objective information thanks to the security that anonymity confers on the people questioned.

Indeed, several elements of the ethical aspect were taken into consideration, namely, the authorisation of the competent authorities, the free and informed consent of the study participants, the right to anonymity and confidentiality, the right to fair and equitable treatment in so far as all participants were informed without exception, as to the nature, the purpose, duration of their participation, as well as the methods used during the study.

The analysis of the data and their exploitation were carried out by the Epi-Info and Excel software.

Results:

Given the heterogeneity of covid-19 positive cases admitted for care, it is essential to first determine the socio-demographic variables and the conditions of contamination of patients.

Thus, relative to the age of the cases, represented by Figure 1, more than half are made up of the age group between 20 and 40 years (55% of cases) and 29% refer to the age group between 40 and 60 years.

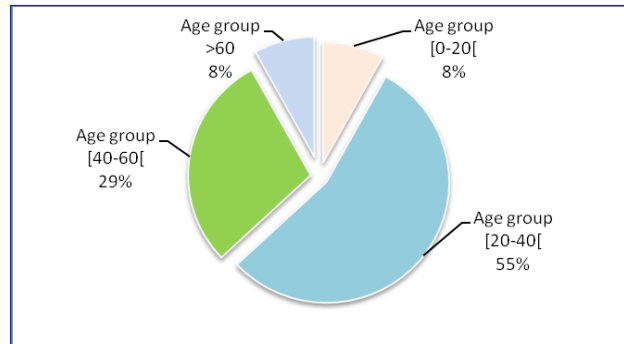


Figure 1. Distribution of positive Covid-19 cases, by age in the province of Kenitra in Morocco

The distribution by sex variable, illustrated by Figure 2, indicates a female predominance in the sample selected in our study with a proportion of 60%.

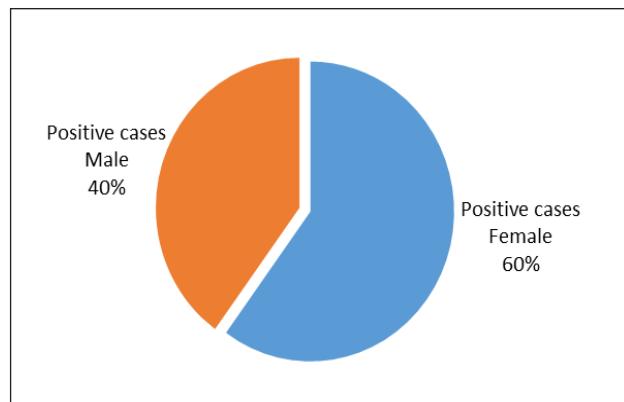


Figure 2. Distribution of positive Covid-19 cases by gender in Kenitra province, Morocco

The results of the distribution of patients according to psychological history illustrated by Figure 3 show a predominance of cases who have never had recourse to a consultation for a pathology or a psychological or psychiatric disorder (88% of cases). Thus, 10% reveal a history and only 2% are currently under psychological follow-up.

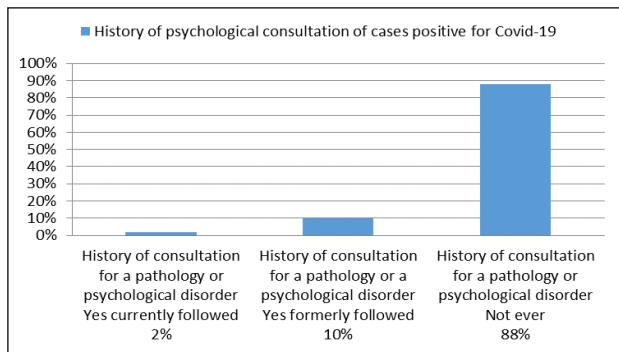


Figure 3. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco by psychological history

Regarding the ability of patients to fall asleep in less than 30 minutes, represented by Figure 4, 34% of patients cannot do so once or twice a week, 28% in the last month, 27% once a week and 11% three or four times a week.

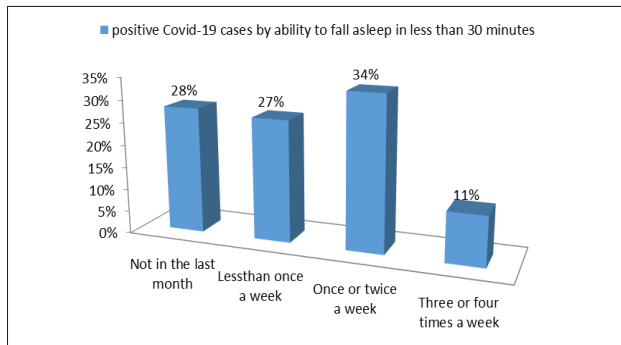


Figure 4. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco by ability to fall asleep in less than 30 minutes

As part of the scale of perceived stress in patients, the analysis of the results illustrated in Figure 5 highlights that 38% of cases sometimes feel nervous or stressed, 29% are nervous quite often, while only 4% indicate that they never feel stressed.

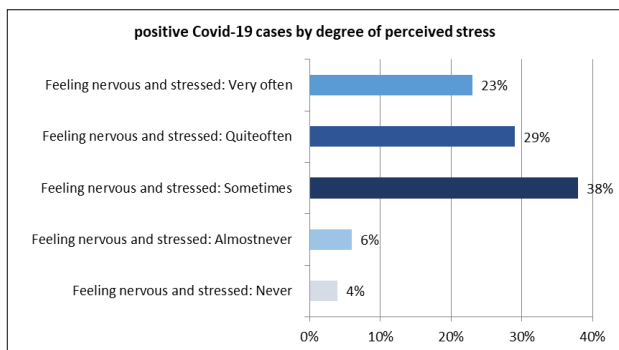


Figure 5. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco by degree of perceived stress

According to figure 6, representing the degree of confidence in taking charge of personal problems, patients generally report a feeling of lack of confidence. Thus, 10% of patients never feel confident or almost confident to assume personal problems.

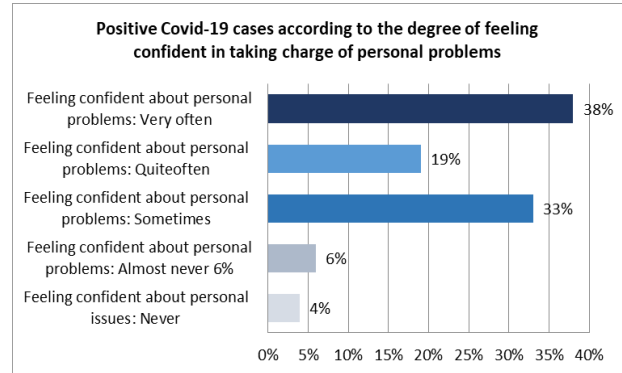


Figure 6. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco according to the degree of feeling confident in taking charge of personal problems

Regarding the feeling of optimism about the course of things, illustrated by Figure 7, 44% of patients consider that things often go in the right direction, 43% sometimes have this feeling, while only 13% never or almost never have it.

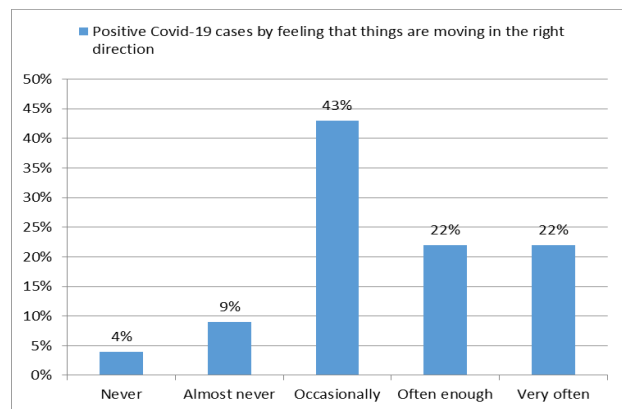


Figure 7. Distribution of positive Covid-19 cases in Morocco's Kenitra province by feeling that things are moving in the right direction

According to Figure 8, relating to the question of not being able to assume all the things that need to be assumed, it appears that almost half of the respondents (49%) think quite often that they cannot cope, 24% sometimes think so, while only 6% never think so.

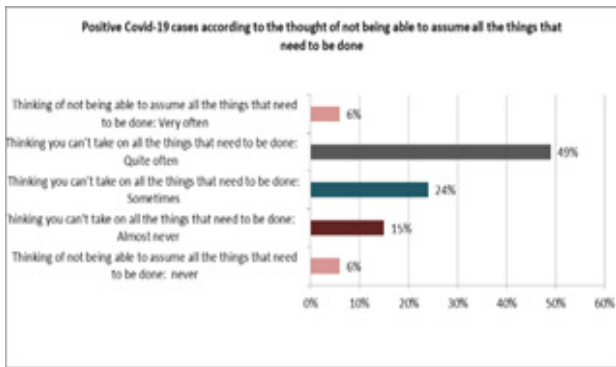


Figure 8. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco, according to the thought of not being able to assume all the things that need to be done

From the point of view of the ability to control one's nervousness, Figure 9 highlights that half of patients often or quite often think they can control their nervousness, 45% are sometimes able to control it, while only 5% say they are never or almost never able to control it.

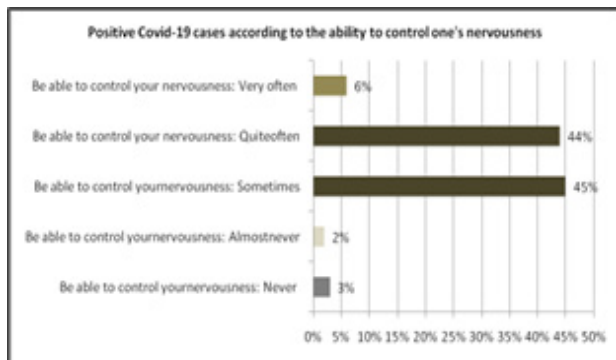


Figure 9. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco according to the ability to control one's nervousness

According to Figure 10, representing the distribution of cases according to the feeling of dominating the situation, 53% of respondents say they have this feeling quite often or very often. 37% sometimes think so, while only 10% never or almost never have this feeling.

The result of the survey on the feeling of irritation because of events that are out of control, illustrated by Figure 11, shows that more than half (51%) of patients sometimes feel irritated, 26% report being irritated quite often, while 21% often develop this feeling very often.

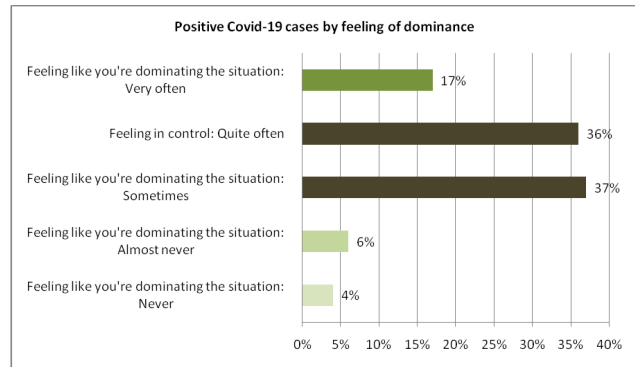


Figure 10. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco by feeling of dominance

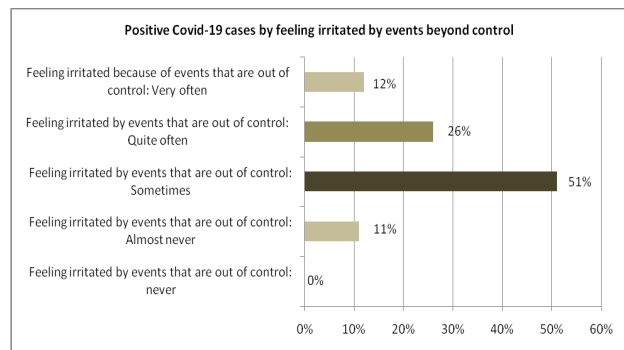


Figure 11. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco by feeling irritated by events beyond control

Relative to the feeling of accumulation of difficulties to such an extent that it becomes impossible to control them, as illustrated by Figure 12, 46% of respondents often possess this feeling, 32% have it only rarely, while only 3% of patients do not have problems.

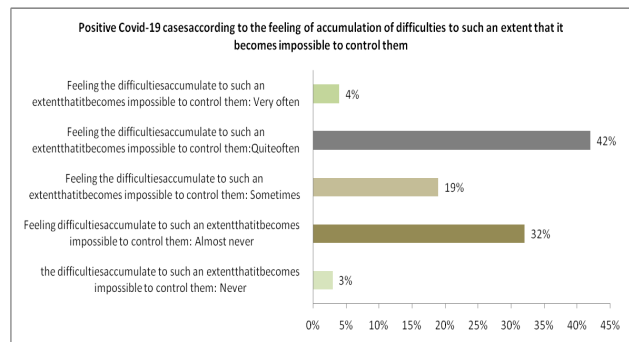


Figure 12. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco according to the feeling of accumulation of difficulties to such an extent that it becomes impossible to control them

Figure 13 illustrates the degree of disturbance due

to an unexpected event. Thus, 45% of patients say that they are sometimes disturbed, 41% are often disturbed and only 3% say they do not have this feeling.

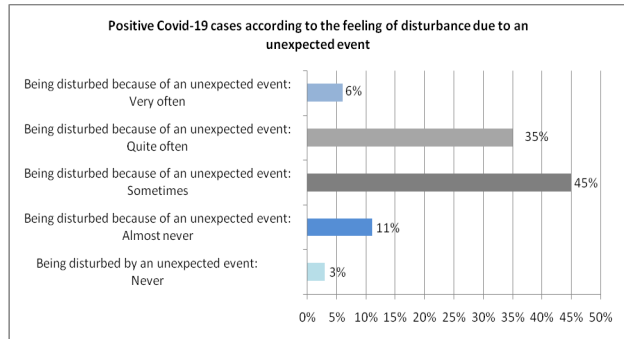


Figure 13. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco according to the feeling of disturbance due to an unexpected event

Finally, in response to the question about difficulties in controlling important things in life, Figure 14 reveals that 47% of respondents think they have this difficulty, 28% sometimes believe it and 25% never or rarely think so.

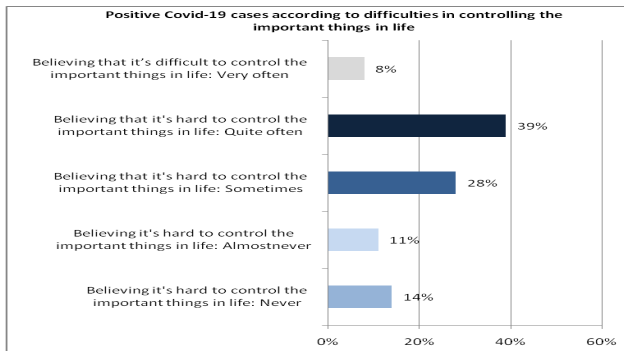


Figure 14. Distribution of positive Covid-19 cases in the province of Kenitra in Morocco according to difficulties in controlling the important things in life

Discussion:

The results from the various survey collection tools adopted and the influencing parameters and their comparison with scientific investigations on the subject make it possible to highlight the effect of Covid-19 infection on the psychology of affected patients.

Thus, this demonstrates the importance of sociodemographic parameters in the psychological influence of Covid19. Indeed, regarding the educational level, the results reveal that the majority of patients (68%) say they have the higher level, 24% the secondary level and 8% the primary level. These

characteristics are consistent with previous studies that highlight that Covid-19 affects all levels of preschool to higher education [4] with, however, a large disparity between populations according to income compared to access to technology for digital monitoring imposed by the education system during social isolation.

On the other hand, the distribution of patients according to age indicates that the most dominant age group corresponds to the adults, i.e., 55% between 20 and 40 years and 8% of the elderly (over 60 years).

The distribution of participants according to the sex variable indicates a female predominance in the sample selected for the study with a proportion of 60%.

These results confirm previous work as they once again focus on vulnerable populations, mainly the elderly, who are among the most affected population group and most at risk of developing a severe form of Covid-19 [5]. Symptomatology is sometimes frustrated and aspecific in this population.

The study also shows that in the 43% of patients revealing a medical or surgical history, there is a dominance of cardiovascular pathologies (37%) and endocrine pathologies (32%). However, it has been shown that diabetic patients with Covid19 may have more severe pneumonia and abnormal organ functions compared to non-diabetic patients [6].

In addition, the results obtained, through our study of the evaluation of the impact of Covid-19 on the psychology of patients, highlight that the majority of patients (88%) have never consulted for a pathology or a psychological or psychiatric disorder, and that 10% of them previously had a follow-up, while only 2% currently benefit from a follow-up.

The evidence of the psychological impact of Covid19 becomes undisputed and several authors confirms this correlation. Covid-19 inevitably affects psychological health and psychiatric disorders such as anxiety, insomnia, depression, or post-traumatic stress often appear in patients after infection including in patients with no psychiatric history [7]. This is more evident in people who already have mental illnesses that are considered more vulnerable [8]. The pandemic has the potential to have a detrimental impact on the mental well-being of many people through the activation of future anxiety [9].

The evaluation of the perceived stress scale in our

sample reveals that 38% of patients sometimes feel nervous or stressed and only 4% have never felt stress. In addition, 48% of respondents moderately believe that they need to control their emotions and only 4% consider this to be absolutely false. This result is consistent with the literature since it has already been shown that individuals with Covid-19 virus infection are much more exposed to psychosocial stress [10].

In addition, the results of the study of the degree of anxiety of patients highlight that half (49%) of patients cannot force themselves to finish boring tasks, 46% believe true that overall they do not manage to achieve things that displease them. This trend converges perfectly with other investigations on the subject [11].

Another element to be linked also to the psychological effects related to Covid-19, corresponds to sleep where the data released underline that the quality of sleep is quite good for 46% of the patients surveyed, very good for 33%, bad enough for 12% and very bad for only 9%. As for the number of hours of sleep, 48% of the patients surveyed say they sleep between 7am and 8am, while 4% sleep only 3am. In addition, our study notes that 34% of patients cannot sleep in less than 30 minutes once or twice a week and 17% wake up in the middle of the night or early in the morning three or four times a week. This corroborates other work because these results show a score of Covid impact events, higher on sleep [11].

Hasan et al. [12] investigated the prevalence of olfactory dysfunction and its associated factors in COVID-19 patients. Parry et al. [13] report on the neurological manifestations of COVID-19 in hospitalized patients in Punjab, India. Haque and Godman [14] (2021) present key findings on COVID-19 in Bangladesh and wider implications.

Rafat and Tamkin (2021) [15] highlight the impact of COVID-19 on postgraduate research in obstetrics and

gynecology, and DEMİR DOĞAN et al. (2023) [16] conducted an online cross-sectional study on nurses' anxiety and depression levels and their compliance with isolation measures during the pandemic.

Conclusion:

The study of the impact of Covid-19 on psychological health highlights the indisputable existence of psychosocial consequences in infected people. Mental health issues related to the Covid-19 pandemic can evolve into long-lasting health problems imbued with feelings of vulnerability, isolation, fear, anxiety, psychological distress, psychosocial stressors, post-traumatic symptoms, stigma, and xenophobia. This adds to public health problems.

It is therefore essential to emphasize the importance of the psychological well-being of the population in the health management of the pandemic, which must integrate all the influencing factors (physical, economic, social, mental, emotional, psychological, spiritual, development and engaging activity, quality of life, life satisfaction and domain-specific satisfaction). The management of infected patients must proactively and simultaneously include psychological activities.

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Ethical clearance: Not applicable

Authors' contribution (Data gathering and idea owner of this study): Badreddine Dahou

Study design: Badreddine Dahou

Data gathering: Badreddine Dahou, Zakaria Abidli, Sara El Fellaq, Amine Rkhaila, Mohammed Chahboun, Rabea Ziri and Ahmed Omar Touhami Ahami

Writing and submitting manuscript: Badreddine Dahou
Editing and approval of final draft: Zakaria Abidli.

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