Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Short communication

Mental health services for mood disorder outpatients in Milan during COVID-19 outbreak: The experience of the health care providers at San Raffaele hospital

Linda Franchini\textsuperscript{a,}*, Nicola Ragone\textsuperscript{b}, Federico Seghi\textsuperscript{b}, Barbara Barbini\textsuperscript{c}, Cristina Colombo\textsuperscript{a,}\textsuperscript{b}

\textsuperscript{a}Mood Disorder Unit San Raffaele Turro Hospital, Via Stamira D’Ancona Milan 20 20127 Italy
\textsuperscript{b}Università Vita-Salute San Raffaele Hospital, Via Olgettina Milan 58 20132 Italy

ARTICLE INFO

Keywords:
Mood Disorder-lockdown-covid-19

ABSTRACT

The spread of COVID-19 throughout Italy, particularly Lombardy, led to adopt quarantine measures, known to exacerbate pre-existing psychiatric conditions. We described a telephone-based surveillance on 101 euthymic Mood Disorder outpatients in Milan by a non-standardized survey to evaluate reactions to lockdown measures and the presence of quarantine stressors. Frustration was the most represented quarantine stressor. Being jobless was significantly related to the presence of frustration, somatization, increased alertness, psychic anxiety and low mood; younger age to the presence of psychic anxiety, alertness and financial concerns. No recurrences were observed at the time of writing.

1. Introduction

The rapid spread of the novel Severe Acute Respiratory Syndrome Coronavirus-2 (Sars-CoV-2) throughout the Italian country resulted in a tragic epidemic that led the Italian Government to impose emergency measures such as quarantine and social isolation.

Quarantine is an unpleasant experience for those who undergo it and boredom can occasionally create dramatic effects, sometimes leading to suicide (Barbisch et al., 2015). If domestic lockdown and social isolation have proved to be quite effective as physical containment for infections, it might prove risky from a psychological point of view due to the onset of distressing feelings such as uncertainty, fear, and despair (Poletti et al., 2018). If environmental stressors may have negative consequences on individuals without a psychiatric history, their effect on patients with pre-existing mental disorders may become even more detrimental, eventually resulting in relapses or worsening of their mental condition (Hawryluck et al., 2004).

Considering that this is the first experience of such a collective social trauma in Italy, no analyses have focused on the potentially negative role of quarantine restrictions on mood disorder patients yet. Lombardy is the Italian region most severely affected by COVID-19 and, at the time of writing, the total number of positive cases in Milan reached 14,161 (data from Civil Protection); nationwide restrictions on travels and quarantine have resulted in difficult and impractical attending of regular psychiatric visits. To minimize the risk of infection arising from travels and social interactions, the Italian Ministry of Health indicated that outpatients in clinically stable conditions should be monitored using telemedicine approaches (e.g., phone, smartphone, laptop, or other devices) for the duration of the Italian lockdown (started from 9\textsuperscript{th} March 2020). Among these patients, it has been requested to evaluate the following parameters: 1) their physical conditions; 2) their knowledge of the pandemic situation; 3) their adherence and tolerance to quarantine restrictions; 4) occurrence of subclinical syndromes or new episodes of their psychiatric illness, to better understand their needs and concerns.

The present report aims at describing the telephone-based mental illness surveillance on Mood Disorder patients attending the Mood Disorder Outpatient Center at San Raffaele Hospital in Milan, with the aid of a non-standardized survey to evaluate reactions to lockdown measures.

2. Methods

2.1. Subjects

Inclusion criteria

The subjects affected by Major Depressive Disorder (MDD) or Bipolar Disorder (BP) who had a scheduled psychiatric visit during the Italian lockdown period (9 March-9 April 2020) at our Center, were contacted by phone to assess their clinical conditions. The inclusion conditions were:

- At least one episode of psychopathology
- Positive during the current lockdown period
- At least one previous episode of psychopathology
- Medically stable
- Able to attend psychiatric consultations
- At least 18 years old

 hospital.

https://doi.org/10.1016/j.psychres.2020.113317
Received 15 April 2020; Received in revised form 17 July 2020; Accepted 19 July 2020
Available online 21 July 2020
0165-1781/ © 2020 Elsevier B.V. All rights reserved.
criteria for our study were being in euthymic conditions according to the clinical judgment of the referring psychiatrist, having previously signed a written informed consent to participate in the ongoing observational study at our Hospital approved by the local ethical committee, and verbally agreeing to answer our questionnaire for clinical and research purposes.

2.2. Procedures

Scheduled patients underwent a telephone-based consultation by their reference psychiatrist concerning their physical (Temperature > 37.5, cough, cold, sore throat, dyspnea) and psychiatric conditions. The consultation was integrated with a short, non-standardized instrument created in the emergency of the current pandemic situation. The tool consisted in a questionnaire assessing the presence of items regarding emotional stressors (fear of infection, frustration due to restrictions, adequacy of supplies, adequacy of information, financial concerns), unpleasant experiences during the lockdown (sleep disturbances, mood or anxiety symptoms, increased dosage of anxiolytics and/or hypnotics) (Brooks et al., 2020), and satisfaction with the questionnaire itself. Each item was rated as present, absent, or not answered. If present, the severity was rated on a Likert scale. Answers were reported in the medical record and were collected together with demographic and clinical data of interest (age, sex, duration of euthymia, duration of maintenance treatment, household composition, employment status, close contact with people affected by COVID-19, and personal history of COVID-19).

2.3. Data analysis

Using the Stat-Soft STATISTICA 8.0 bivariate correlation analyses have been carried out to evaluate the association between clinical (diagnosis, euthymia and maintenance treatment duration), and demographic variables (age, sex, living alone, employment status) to quarantine stressor in order to identify predictive variables for multiple regression.

3. Results

At the time of writing quarantine has been going on for 37 days. One-hundred and one patients were screened for enrolment, all of which met the inclusion criteria. No missing data were reported. Our sample showed a mean age of 61.9 ± 12 yrs, and an average period of euthymia of 30 months, with a mean long-term treatment period of 15.1 ± 13.1 yrs. Fifteen out of 101 patients (14.8%) experienced COVID-19 among their relatives whereas none of them reported to have been infected by COVID-19, and personal history of COVID-19.

Table 1 reports clinical and demographic characteristics of the sample, percentage of each stressor reported and their significant correlations.

Aim of this study is to describe the telephone-based mental illness surveillance on the quarantine effects in a sample of euthymic mood disorder patients who could not attend their scheduled psychiatric visit due to lockdown measures.

The potential negative role of quarantine restriction on mood disorder patients depends on the high susceptibility to lifestyle-mediated disturbances of biological and social rhythms (Wang et al., 2020). In this sense, social isolation, travel restrictions, and home confinement could predispose to an increased risk of affective recurrences. However, we have currently observed no recurrence of illness, supporting the crucial role of a sustained euthymia, reachable with a long-term maintenance treatment in Mood Disorders (Cava et al., 2005).

The potential negative role of quarantine restriction on mood disorder patients depends on the high susceptibility to lifestyle-mediated disturbances of biological and social rhythms (Wang et al., 2020). In this sense, social isolation, travel restrictions, and home confinement could predispose to an increased risk of affective recurrences. However, we have currently observed no recurrence of illness, supporting the crucial role of a sustained euthymia, reachable with a long-term maintenance treatment in Mood Disorders (Cava et al., 2005).

4. Discussion

The purpose of our brief report is to describe the telephone-based mental illness surveillance on the quarantine effects in a sample of euthymic mood disorder patients who could not attend their scheduled psychiatric visit due to lockdown measures.

The purpose of our brief report is to describe the telephone-based mental illness surveillance on the quarantine effects in a sample of euthymic mood disorder patients who could not attend their scheduled psychiatric visit due to lockdown measures.

The potential negative role of quarantine restriction on mood disorder patients depends on the high susceptibility to lifestyle-mediated disturbances of biological and social rhythms (Wang et al., 2020). In this sense, social isolation, travel restrictions, and home confinement could predispose to an increased risk of affective recurrences. However, we have currently observed no recurrence of illness, supporting the crucial role of a sustained euthymia, reachable with a long-term maintenance treatment in Mood Disorders (Cava et al., 2005).

Frustration due to restrictions was the most represented stressor in our sample. This finding is not surprising in a long-lasting clinically stable sample and frustration could represent a normal and understandable response to an atypical and stressful situation such as the COVID-19. In fact, loss of usual routine and reduced social and physical contact have been linked to emotional responses, such as frustration, in our non-clinical population (Bai et al., 2004). On the other hand, presence of frustration could be more harmful in mood disorder patients, considering that may lead to a worsening of the pre-existing psychiatric disorders (Bai et al., 2004).

In our sample, we found significant associations between unemployment and younger age as demographic variables and several quarantine stressors, including frustration. In particular being jobless was significantly related to the presence of frustration, somatization, psychic anxiety and increased alertness, while younger age to the presence of psychic anxiety and financial concerns. Lower household income and financial loss are known to be post-quarantine stressors and having a history of psychiatric illness was associated with experiencing anxiety and anger 4-6 months after quarantine (Jeong H et al., 2016).

In line with our results, our unemployed and younger patient might be at a higher risk for new recurrences and, therefore, they might benefit from a careful follow-up.

We acknowledge that a non-standardized survey should be considered as a major limit, impeding the generalization of our observations. Nevertheless, considering the lack of standardized tools and the
responsibility to maintain operational psychiatric care during this exceptional gravity situation, our experience can provide a useful contribution.

We found very low rates of concerns regarding having inadequate information or supplies, suggesting that the emergency measures taken by the Italian authorities were appropriate and adequately released to the population.

Finally, our experience suggested that telemedicine, although infrequently practiced in the Italian psychiatric setting until recently, might be considered as a valid ally against the clinical difficulties encountered during the COVID-19 pandemic, supporting patients in their regular psychiatric monitoring.

CRediT authorship contribution statement

Linda Franchini: Conceptualization, Writing - original draft. Nicola Ragone: Investigation. Federico Seghi: Writing - review & editing. Barbara Barbini: Writing - original draft. Cristina Colombo: Supervision.

References

Bai, Y., Lin, C.-C., Lin, C.-Y., Chen, J.-Y., Chue, C.-M., Chou, P., 2004. Survey of stress reactions among health care workers involved with the SARS outbreak. Psychiatric Service 55, 1055–1057.

Barbisch, D., Koenig, KL., Shih, FY., 2015. Is there a case for quarantine? Perspectives from SARS to Ebola. Disaster Med. Public Health Prep. 9, 547–553.

Brooks, SK., Webster, RK., Smith, LE., Woodland, L., Wessely, S., Greenberg, N., Rubin, GJ., 2020. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet 395, 912–920.

Cava, MA, Fay, KE., Beanlands, Hj., McCoy, EA., Wignall, R., 2005. The experience of quarantine for individuals affected by SARS in Toronto. Public Health Nurs. 22, 398–406.

Hawryluck, L., Gold, WL., Robinson, S., Pogorski, S., Galea, S., Styyra, R., 2004. SARS control and psychological effects of quarantine, Toronto, Canada. Emerg. Infect. Dis. 10, 1206–1212.

Jeong, H., Yim, HW., Song, Y-J., et al., 2016. Mental health status of people isolated due to middle east respiratory syndrome. Epidemiol. Health 38, e2016048.

Lima, C.K., Carvalho, P.M., Lima, I.A., Nunes, J.V., Saraiva, J.S., de Souza, R.I., et al., 2020. The emotional impact of Coronavirus 2019-nCoV (new Coronavirus disease). Psychiatry Research 287 (112915).

Poletti, S., Aggio, V., Brioschi, S., et al., 2018. Impact of early and recent stress on white matter microstructure in major depressive disorder. J. Affect. Disord. 225, 289–297.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C.S., Ho, R.C., 2020, Mar 6. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int. J. Environ. Res. Public Health 7.