Psychological implications during the outbreak of COVID-19 and its homeopathic management

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Abstract

Background: Coronavirus disease 2019 (COVID-19) is rapidly spreading across the globe and is creating dread among all people irrespective of their socioeconomic status. To tackle the rapid spread of the disease, social distancing has been found to be the only measure. However, such distancing creates a lot of mental stress, as evident from previous studies. Objectives: The objective of the study was to assess the psychological implications during quarantine and isolation and to find the homeopathic remedies that may be suitable. Methods: We have tried to collect the mental symptoms from the available literature and from the recent studies in China on COVID-19. Based on these, repertorisation outcome was analysed to evolve a group of medicines that can be used in the scenario. Results: Based upon the symptoms collected from the previous studies, repertorisation outcome [Figure 1] was analysed to evolve a group medicine which can be used in the scenario. The medicines Arsenicum album, Calcarea carbonica, Lachesis, Ignatia and Pulsatilla obtained the highest marks in the analysis. The symptoms of these medicines were collected after referring the Hering’s Guiding Symptoms of Materia Medica[3] and Desktop Guide to Keynotes and Confirmatory Symptoms by Roger Morrison[22] and are presented in the paper. Conclusion: We hope that these medicines will prove to be beneficial for prescription to those suffering from the psychological impacts of COVID-19.

Keywords: Homoeopathy, Lockdown, Psychological implications

Introduction

Coronavirus is one of the key pathogens that primarily targets the human respiratory system. The initial cases of the novel coronavirus disease outbreak were epidemiologically linked to a seafood and wet animal wholesale market in Wuhan, Hubei Province, China.[1,2] The name of the virus isolated was given as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and the World Health Organisation (WHO) announced ‘COVID-19’ as the name of this new disease on 11th February, 2020. On 30th January, 2020, the WHO Director-General declared that the outbreak of coronavirus disease 2019 (COVID-19) constitutes a Public Health Emergency of International Concern.[3] The source of the virus, the time span of the patients discharging infective virus and also the complete pathogenesis are still not clear.[4] Any major epidemic outbreak has negative effects on individuals and the society as a whole. Pandemics are ‘frequently marked by uncertainty, confusion and a sense of urgency.’[8] Prior to, or in the early stages of a pandemic, there is widespread uncertainty about the odds and seriousness of becoming infected, along with uncertainty and possible misinformation, about the best methods of prevention and management.[9] Pandemics are associated with a score of other psychosocial stressors, including health threats to oneself and loved ones. There may be severe disruptions of routines, separation from family and friends, shortages of food and medicine, wage loss, social isolation due to quarantine or other social distancing programs and school closure. Personal financial hardship can occur if a family’s primary wage earner...
is unable to work because of illness.\textsuperscript{[10]} As the COVID-19 pandemic and its far-reaching implications continue to unfold globally and, in our community, it is normal for people to experience a wide range of feelings.

**Quarantine in Coronavirus Disease 2019**

The word quarantine was first employed in Venice, Italy, in 1127 with regard to leprosy and was widely used in response to the Black Death. However, it was not until 300 years later that the UK properly began to impose quarantine in response to the plague.\textsuperscript{[11]} Most recently, quarantine has been implemented in the COVID-19 outbreak in most of the countries such as China, Iran, Italy, India and Gulf countries.

People who are exposed to an infectious disease and may be infected but are not yet showing symptoms may be quarantined. It is done for a period not more than the longest usual incubation period of the disease. Quarantine may comprise absolute quarantine, modified quarantine (selective partial limitation of movement) and segregation which is defined as separation for special consideration. With better techniques, quarantine had become an outdated method of disease control.\textsuperscript{[12]} However, during COVID-19, it has again proved to be a successful method of disease control.

The WHO recommends that contacts of patients with laboratory-confirmed COVID-19 should be quarantined for 14 days from the last time they were exposed to the patient. For the purpose of implementing quarantine, a contact is a person who is involved in any of the following from 2 days before and up to 14 days after the onset of symptoms in the patient:

- Having face-to-face contact with a COVID-19 patient within 1 meter and for >15 min
- Providing direct care for patients with COVID-19 disease without using proper personal protective equipment
- Staying in the same close environment as a COVID-19 patient (including sharing a workplace, classroom or household or being at the same gathering) for any amount of time
- Travelling in close proximity with (that is, within 1 m separation from) a COVID-19 patient in any kind of conveyance and other situations, as indicated by local risk assessments.\textsuperscript{[13]}

**Isolation**

Isolation is the separation of the infected persons for a period of communicability to prevent the transmission of an infectious agent.\textsuperscript{[9]} This is for individuals who are sick from the contagious disease. The type of isolation varies with the mode of spread and severity of the disease. There are several types of isolation – standard isolation, strict isolation, protective isolation and high-security isolation. Strict isolation has been imposed during COVID-19. It is apparently going to last long, at least until a cure is established or the effect of the contagion weans off with time. The duration of the isolation is determined by the duration of the communicability of disease and the effect of chemotherapy on infectivity.\textsuperscript{[9]}

The American Psychological Association reports that social isolation carries a number of health risks.\textsuperscript{[14]} Feeling isolated can lead to poor sleep, poor cardiovascular health, lower immunity, depressive symptoms and impaired executive function. When executive function skills are impaired, one may find it more difficult to focus, manage one’s emotions, remember information and follow directions.

**Background**

While each epidemic is unique, looking at past events can provide a look into the psychological impact that quarantines can cause.

On our search across various electronic databases such as MEDLINE, Embase, CINAHL and PubMed using the keywords ‘quarantine’, ‘isolation’, ‘psychosocial’, mental disorders’ and ‘suicidal’, we could assess that transmission of infectious diseases affects the mental and social well-being of persons. It has been found that acute exposure to quarantine and isolation can have long-lasting effects on the mental processes. Such effects were found among the patients, informal caregivers and even health-care providers. This indicates the complex psychosocial dynamics among the key stakeholders in the process of quarantine or isolation.\textsuperscript{[15]} Confinement to a small area for a long period in quarantined people and fear of death or infecting loved ones can lead to desperate measures including suicides.\textsuperscript{[16]}

Between 2002 and 2004, more than 15,000 people in Toronto voluntarily went into quarantine to prevent exposure to SARS. SARS, like COVID-19, is a contagious respiratory illness caused by a coronavirus. For a period of around 10 days, these individuals were asked not to leave their homes, not to have visitors, to wear face masks around other family members, to avoid sharing personal items and to wash their hands frequently, among other measures. Later research indicated that quarantined individuals experienced a range of both immediate and long term psychological consequences.\textsuperscript{[17]}

All those surveyed reported feeling isolated while in quarantine as a result of the lack of social and physical contact with others. People felt cutoff from the rest of the world because they were unable to do normal activities. For some, health precautions such as wearing a face mask increased their feelings of anxiety and isolation. In addition to the feelings of social isolation during quarantine, participants reported longer-lasting psychological distress for around a month afterward. Almost 29% of participants displayed post-traumatic stress disorders (PTSD) symptoms, while 31.2% had depressive symptoms. Stigma can also create mental distress following quarantine. One study found that 29% felt that other people avoided them after they had been in quarantine.\textsuperscript{[17]}

A 2020 review in the *Lancet* analysed the results of past studies to get a better idea of how COVID-19 may impact those who
are quarantined. The review found that psychological distress is common both during and after periods of quarantine.[18] Several mental disorders and psychological conditions were found across study populations, which included low self-esteem,[19-22] mood disorders,[18,22] fear,[18,20] guilt,[18] loneliness,[20-23] boredom,[20,21] feeling a lack of control,[21-23] insomnia,[18] PTSD,[18] perceived dirtiness,[22] vigilant handwashing[18] and avoiding crowds and social gatherings even after quarantine or isolation.[18]

There are evidences which suggest that there may be longer-term consequences as well. Substance and alcohol dependency were more common up to 3 years after quarantine.[18] For health-care workers,[24] being quarantined was significantly and positively associated with avoidance behaviours, such as minimising direct contact with patients and not reporting to work.

**Diagnostic Criteria of Mental Health Impacts of Coronavirus Disease 2019**

The mental health impact of COVID-19 is not diminutive. It ranges from a simple anxiety to suicidal deaths.

According to the ICD-10 classification mental and behavioural disorders, the mental health impact of COVID-19 can be categorised under the following diagnosis:

**F43 reaction to severe stress and adjustment disorder**

Adjustment disorders include those disorders identifiable on the basis of one or other of two causative influences – an exceptionally stressful life event producing an acute stress reaction or a significant life change leading to continued unpleasant circumstances. The causative importance of such stress is not always clear and, in each case, depends on the individual, often idiosyncratic, vulnerability. The stressful event or the continuing disagreeableness of circumstances is the primary causal factor, and the disorder would not have occurred without its impact. Reactions to severe stress and adjustment disorders in all age groups, including children and adolescents, are included in this category.

- F43.0: Acute stress reaction
- F43.1: PTSD
- F43.2: Adjustment disorders
  - 20: Brief depressive reactions
  - 21: Prolonged depressive reaction
  - 22: Mixed anxiety and depressive reaction
  - 23: With the predominant disturbance of other emotions
  - 24: With the predominant disturbance of conduct
  - 25: With mixed disturbance of emotions and conduct
  - 28: With other specified predominant symptoms.
- F43.8: other reactions to severe stress
- F43.9: Reaction to severe stress, unspecified.

These disorders interfere with successful surviving mechanisms and thus lead to difficulties in social functioning.[25]

**Homoeopathic Perspective**

Homoeopathy integrates mental and physical domains for treatment. There has been sufficient literature for successful treatment of the psychological problems with Homoeopathy.[26-29] An intelligent and careful case taking which elicits appropriate individualising features in a case can offer a relatively better relief for the people suffering during epidemic like COVID-19. An attempt has been made earlier to collect the mental symptoms developed in laypeople and health-care workers during the period of epidemics. Brooks *et al.* found several mental health conditions among the health-care providers who worked under quarantine, which included acute stress disorder, exhaustion, detachment, anxiety, depression, irritability, insomnia, poor concentration, deterioration of work performance, alcohol use, avoidance behaviour and posttraumatic stress-related symptoms, even after 3 years of quarantine period.[30] Abad *et al.* reported a few participants acknowledged privacy and freedom during isolation, whereas the remaining studies reported higher scores from depression, anxiety, anger–hostility, fear, loneliness, boredom and low self-esteem.[20] Based on the symptoms collected from the previous studies, repertorisation outcome [Figure 1] was analysed to evolve a group medicine which can be used in the scenario. The medicines such as *Arsenicum album*, *Calcarea carbonica*, *Lachesis*, *Ignatia* and *Pulsatilla* obtained the highest marks in the analysis. The symptoms of these medicines were collected after referring the Hering’s *Guiding Symptoms of Materia Medica* and *Desktop Guide to Keynotes and Confirmatory Symptoms* by Roger Morrison[32] and are presented below:

**Arsenicum album**

The symptoms of *Arsenicum album* are as follows.[32]

- Early phase anxiety-marked emotional symptoms are irritable, critic and discontent
- As the insecurity becomes more extensive, the patient develops anxiety and frightening panic attacks with trembling and restlessness and a great desire for company and reassurance
- The patients’ anxiety is most often focused on health issues
- Fear of death to his/her very core
- Arsenic can cure deep phobic disorders, such as advanced cases of agoraphobia
- Cautious

**Figure 1: Repertorial analysis**
• The great insecurity causes anxiety and caution in any dangerous situation
• Anxiety and fear extended to obsessive behaviour
• Fastidious
• Desire to remain in control at all times. Careful planning
• Depression even to the point of suicide
• Anorexia nervosa.

Calcaria carbonica
The symptoms of Calcaria carbonica are as follows.[31,32]
• This remedy may be beneficial for especially overbearing depression. Patients may feel they have sunk so low they are at the bottom of the ocean.
• They are so overwhelmed and exhausted; they cannot seem to swim to the surface. They worry and fret over everything, even the most seemingly unimportant issues.
• Work may seem like a daunting task that continues to pile up and will never be finished.
• Fear of infection and disease
• Anxiety and fear about health money (insecurity feelings)
• Aversion to hearing bad news
• Despair about recovery
• Confusion
• Restlessness at night due to fear
• This can spin into depression and melancholy. They tend to suffer from a lot of self-doubt and may prefer to go home and curl up by themselves and cry.

Lachesis mutus
The symptoms of Lachesis mutus are as follows.[32]
• Depressed and anxious, worse in morning on waking. Suicidal disposition
• Fantasies of his own funeral
• Great anxiety and deep phobic conditions
• Ailment from grief
• Anxiety with sleeplessness
• Inferiority and inhibition
• Alcoholism and drug addiction
• Fear of incurable disease
• Prostration of mind from grief
• Fear of contagions.

Ignatia amara
The symptoms of Ignatia amara are as follows.[31,32]
• Ignatia is a short-acting or superficial remedy. It is certainly the case that when grief has caused pathological changes in the tissue rather than a functional disorder, we prefer remedies like Ignatia, Natrum muriaticum and Aurum. However, as noted, Ignatia covers many particular physical disorders.
• Oversensitive patient almost a setup for disappointments and leads to easily hurt feelings
• And yet, it is often difficult or even impossible for the patient to release the emotions. Instead, they remain cramped inside. Often, this cramping of emotions leads to defectiveness and may cause the patient to act in a rude, suspicious or challenging manner towards the prescriber.
• Ailment from grief and disappointment
• We use Ignatia only when the grief is unresolved or lasts excessively or produces symptoms
• Deep sighing
• Desire to avoid crying giving way to sobbing
• Aversion to consolation
• Hysterical symptoms.

Pulsatilla nigricans
The symptoms of Pulsatilla nigricans are as follows.[31,32]
• Weeps while telling about her problems
• There is often a strong desire for tenderness and reassurance in the typical Pulsatilla patient
• Changeable mood confusion
• Weepy alternate with irritable – this occurs generally if the patient needs attention and feels she is deprived
• Pulsatilla can go into deeply apathetic states, senility or even catatonia
• Feel forsaken
• Excessive praying
• Fainting from the stuffy room.

Conclusion
The psychological pain caused by the loss of loved ones, living separated, deprivation of freedom and loss of position can be devastating. Hence, it is high time to look into the psychological issues encountered by those who have COVID-19 infection and those quarantined or isolated or suffered from the after effects of the infection.

Before such patients progress to severe mental derangement, we ought to give them hope for future life. Central Council for Research in Homoeopathy has done many studies[26–29] in the field of psychiatry and homoeopathic intervention has proved to be effective. Based on this context, we hope that Homoeopathy can offer help to those suffering from the psychological effects of COVID-19.

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Conflicts of interest
None declared.

References
Moorthi, et al.: Homoeopathy during lockdown


Implications Psychologiques Pendant l'épidémie de COVID-19 et sa Gestion Homéopathique

Contexte: La maladie Coronavirus 2019 (COVID-19) se propage rapidement à travers le monde et pose une crainte chez toutes les personnes, quel que soit leur statut socioéconomique. Pour lutter contre la propagation rapide de la maladie, la distanciation sociale s'est avérée être la seule mesure. Cependant, une telle distance crée beaucoup de stress mental, comme le montrent les études précédentes. Objectifs: L'objectif de l'étude était d'évaluer les implications psychologiques pendant la quarantaine et l'isolement et de trouver les remèdes homéopathiques qui pourraient convenir. Méthodes: Nous avons essayé de collecter les symptômes mentaux à partir de la littérature disponible et des récentes études en Chine sur Covid-19. Sur la base de ceux-ci, le résultat de la repertorisation a été analysé pour faire évoluer un groupe de médicaments pouvant être utilisés dans le scénario. Résultats: Sur la base des symptômes collectés lors des études précédentes, le résultat de la repertorisation (figures 1 et 2) a été analysé pour développer un médicament de groupe qui peut être utilisé dans le scénario. Les médicaments Arsenicum album, Calcarea carbonica, Lachesis, Ignatia et Pulsatilla ont obtenu les notes les plus élevées de l'analyse. Les symptômes de ces médicaments ont été collectés après avoir référé le Guide de référence de Hering sur les symptômes de la matière médicale et le Guide de bureau aux notes d'identification et aux symptômes confirmatifs (Guiding Symptoms of Materia Medica and Desktop Guide to Keynotes and Confirmatory Symptoms) de Roger Morrison et sont présentés dans le document. Conclusion: Nous espérons que ces médicaments s'avéreront bénéfiques pour la prescription à ceux qui souffrent des impacts psychologiques de COVID-19.

Implicaciones psicológicas durante el brote de COVID-19 y su gestión homeopática

Antecedentes: La enfermedad coronavirus 2019 (COVID-19) se está extendiendo rápidamente por todo el mundo y está creando temor entre todas las personas independientemente de su estado socioeconómico. Para hacer frente a la rápida propagación de la enfermedad, se ha encontrado que el distanciamiento social es la única medida. Sin embargo, tal distanciamiento crea mucho estrés mental, como se desprende de estudios anteriores. Objetivos: El objetivo del estudio fue evaluar las implicaciones psicológicas durante la cuarentena y el aislamiento y encontrar los remedios homeopáticos que pudieran ser adecuados. Métodos: Hemos tratado de recoger los síntomas mentales de la literatura disponible y de los estudios recientes en China sobre Covid-19. En base a estos, se analizó el resultado de la repertorización para desarrollar un grupo de medicamentos que se pueden utilizar en el escenario. Resultados: Sobre la base de los síntomas recogidos de los estudios anteriores, se analizó el resultado de la repertorización (Figuras 1 y 2) para desarrollar un grupo de medicamentos que se pueden utilizar en el escenario. El álbum de medicamentos Arsenicum, Calcarea carbonica, Lachesis, Ignatia y Pulsatilla obtuvieron las marcas más altas en el análisis. Los síntomas de estos medicamentos se recogieron después de remitir los síntomas Guía de Hering de la materia Medica y la Guía de Escritorio a las notas clave y los síntomas confirmatorios por Roger Morrison y se presentan en el artículo. Conclusion: Esperamos que estos medicamentos resulten beneficiosos para la prescripción de aquellos que sufren los impactos psicológicos del COVID-19.