

CASE REPORT**Brief Psychotic Disorder in Relation to Coronavirus, COVID-19
Outbreaks: A Case Report**

Nathratul Ayesah Zulkifli, Sulekha Sivapatham, Ng Chong Guan

Department of Psychological Medicine, Faculty of Medicine,
University Malaya, Kuala Lumpur, Malaysia

Abstract

Coronaviruses are a family of virus that cause respiratory symptoms. The latest outbreaks of the virus in late December 2019, is named Covid-19. World Health Organization (WHO) declared a public health emergency on 31th of January 2020. Cases were detected across the globe. Brief psychotic disorder is a sudden onset (within two weeks) of psychosis which lasting for less than a month. The affected person will eventually return to their premorbid state. It is often in response to a stressful event in one's life. We reported a case of 31 years old man, who presented with one week's history of odd behaviour. He was causing a disturbance within his neighbourhood, where he was holding a knife, talking irrelevantly and acting suspiciously. This was his first presentation to hospital. He has no family history of mental illness. He did not take any illicit substances nor alcoholic. In the ward, he was given a low dose of antipsychotics, where he responded rapidly. His brother reported that the patient had been very worked up with the coronavirus outbreak news and had been constantly texting him. He was having fear and distress as he felt that there were not enough preventive measures were being put into place to curb the outbreak of the disease.

Keywords: Coronavirus, Covid-19, Psychosis, Brief Psychotic Disorder, Stress, Outbreaks

Introduction

Coronaviruses are a family of virus that cause respiratory symptoms, ranging in severity. The latest outbreak of a novel coronavirus occurred in late December 2019, earning its name of Covid-19. This outbreak was first detected in Wuhan, China [1], has sparked a global epidemic, which the World Health Organization declared a public health emergency of international

concern on 31th of January 2020. Cases were then detected in Japan, Thailand, United States of America, Australia, and France [2]. Predecessors include the SARS and Mers-CoV outbreaks happened in 2004 and 2012 respectively. Symptoms are more flu-like and upper respiratory tract infection includes fever, cough, shortness of breath and breathing difficulties. It has affected nearly 80,000 people over 47 different countries around the world [3].

Brief psychotic disorder is a sudden onset (within two weeks) of psychosis which lasting for less than one month. The affected person eventually returns to their premorbid state after the brief impaired reality testing occurred. It is often in response to a stressful event in one's life. Psychosis symptoms include hallucinations or delusions, along with grossly disorganized or catatonic behaviour and disorganised speech (e.g. frequent derailment or incoherence). Organic causes, substance-related disorders, as well as mood and other psychotic disorders must be ruled out to make this diagnosis [4].

The acute brief psychoses occur in healthy men and women of any age, but predominantly in young adults. They are characterised by relatively abrupt onset of insomnia, extreme restlessness, mental confusion, auditory and visual hallucinations, delusions that they are in danger, disrobing, incoherent rambling, pressured speech, destructive and combative behaviour such as tearing or burning clothes, became aggressive by destroying property, and attacking or beating relatives [5].

Case Report

There was a recent admission of a 31 years old, Malay man. He was brought by police with the presentation of one week's history of odd behaviour. He was causing a public nuisance within his neighbourhood by holding a knife, talking irrelevantly and constantly expressing his believe that the world will end soon. He was also being suspicious toward his housemates. This was his first presentation to the hospital. He did not smoke, use any illicit substances nor alcoholic. There was no history of mental illness in his family.

Upon admission, all organic work out done

for him turned out to be negative. All his parameter was within the normal limits. His blood pressure was 112/58 mmHg, heart rate was 70 beats/min, body temperature was 37°C, and respiratory rate was 20 breaths/min. During his physical examination, there was no abnormality seen. Initial routine laboratory tests revealed normal results. His blood parameter was provided in Table 1. Imaging of CT Brain was unremarkable as well.

For acute management, he was given low dose of antipsychotics as he is naive towards any neuroleptic medication. He responded and settled down rapidly with the medications. He did not show any psychotic symptoms in the ward. However, he was unable to recall what had happened to him prior to the admission. In brief psychotic disorder, most symptoms usually disappear within 2 to 14 days. The patient typically complains of amnesia for the entire period of onset and excitement [5]. It came to light after discussion with his brother that prior to admission, the patient was very worked up with the recent coronavirus outbreak and had been constantly texting his brother.

He was having fear and distress as that there were not enough measures being put into place in order to curb the rate of transmission. He worried about his own safety and kept searching online for the news. He was very worried and overwhelmed with the information. The brief psychoses are often preceded by a definite environmental stress, namely conflict arising from domestic strife, employment problems, accidents, illness or death in the family [5]. The patient in this case returned back to his premorbid self after three days in the ward. Family intervention was conducted with psychoeducation. He was advised to refrain

himself from over-reading the news and obtain them from reliable sources.

Discussion

News of outbreak and fear

The spread of news through web and social media in the digital era has drastically altered information delivery. Today, media outlets are essential in providing the public up to date of any issues, with timely news coverage. These channels are expected to report on outbreak professionally and promptly. Social media plays an important role in the public's perceptions of such events [6]. Media channels should ideally deliver objective reports to increase support and understanding instead of misleading information and fake news that may only serve to induced stress in individuals and stoke fear [7].

Outbreaks of emerging infectious such SARS or COVID-19, can be associated with considerable fear in the general public. The reason being, these infectious evolving nature and inherent scientific uncertainties, which leads to overconcern especially when illness and deaths are substantial [3]. With rapidly outbreaks new and emerging infectious diseases, medical strategies required a delicate balance between protecting the public's health and initiating exclusionary practices and treatments without misleading information that can lead to fear and overconcern among society.

Retrospectively in 2004, outbreak of SARS, fear arose from the underlying anxiety about a disease with an unknown cause and possible fatal outcome. Fear accumulated as global media reported dramatic stories from Asia in print media, television, and the Internet with sensational headlines from

worldwide press which heightened the fear [3].

The news media tell the public what to think about by directing attention to problems and solutions and prioritising issues of importance [7, 8]. Thus, media have become tools for understanding health problems in different contexts and for understanding the psychosocial factors that propel epidemics [9]. The challenges of a novel and complementary data source and data analysis methodology '*not withstanding*' [10]. Previous study, the method is being increasingly employed for passive monitoring. Twitter has been used to track levels of disease activity and public concern and to improve surveillance [11, 12]. Google has been used to monitor Ebola-related web search behaviour and dengue outbreaks. The rest of the public have used a travel health website to monitor anxiety over the Zika virus. For example, the high upsurge in media discourse about dengue in Brazil in 2015 was alarming and this created the sudden rise of anxiety among public about the known disease.

Construal Level Theory of Psychological Distance

CLT is a psychological theory that explains the relationship between psychological distance of stimuli (eg, illness outbreak, events, objects, and people) and how they are mentally represented or construed [13, 14]. Psychological distance refers to the subjective distance stimuli maintain from a person's direct experience [15] which is centred around "here," "now," the "self," and "reality." Based on CLT, an epidemic comes closer on these four dimensions (ie, spatially, temporally, socially, or hypothetically), and it also becomes "psychologically closer". Psychological distance has important implications for risk

perceptions and experiencing affect. Previous research has shown that fear and arousal for (real or imagined) negative events decrease with increased psychological distances [16]. CLT may be a useful framework to increase understanding of public response to epidemic outbreaks [17]. Spatial and social distance are important predictors of public attention to worldwide crisis such as epidemics. These factors need to be considered when communicating about human tragedies [18].

The Role of the Media and Media Hypes in the Aftermath of Disasters/Outbreak

In most studies concluded that the media are portrayed negatively: as writing sensation-seeking, enlarging anecdotic stories, especially on who is to blame; being in the way of rescue workers; repeating the same images (e.g., the planes hitting the World Trade Centre's Twin Towers) over and over again; separating physical and mental health consequences of the disaster (with no attention paid to the latter); and creating new

syndromes (anxiety or excessively fear) [19].

There are two different roles of the media retrieved following disasters or an outbreak: *negative* and *positive*. Media hypes are media-generated news waves reinforcing over and over again one specific frame while ignoring other perspectives. Therefore, it can fuel fear and anxiety among people involved in one way or another during or after the outbreak. People tend to adopt the explanations offered by the media and integrate them into their story about their own health complaints. Truly, the media can offer beneficial effect on the community by well-informing, well-educating, with the people, which the substantial and reliable news was crucial. As per conclusion, public need to be more aware and vigilant to gain such information from the reliable source only provide by the government formal link, to prevent them unnecessary exposure or anxiety while dealing with overflow of fake news on the such online or from other electronic devices.

Table 1. The results of the blood investigation of the case

Hemoglobin	12.2 g/dl	Normal range (13-17 g/dl)
White blood cells	9.0 x 10 ⁹ /L	Normal range (4-10 x 10 ⁹ /L)
Platelets	342 x 10 ⁹ /L	Normal range (150-410 x 10 ⁹ /L)
Urea	7.2 mmol/L	Normal range: (3.2-8.2 mmol/L)
Creatinine	58 µmol/L	Normal range: (15-106 µmol/L)
Potassium	4.0 mmol/L	Normal range: (3.4-5.1 mmol/L)
Sodium	141 mmol/L	Normal range: (136-145 mmol/L)
Chloride	102 mmol/L	Normal range: (98-107 mmol/L)
Total protein	68 g/L	Normal range: (60-83 g/L)
Albumin	36 g/L	Normal range: (40-49 g/L)
Total bilirubin	5 µmol/L	Normal range: (2-17 µmol/L)
Alanine	14 U/L	Normal range: (5-41 U/L)

aminotransferase		
Alkaline phosphatase	68 U/L	Normal range: (5-128 U/L)
Total cholesterol	5.1 mmol/L	(Optimal <5.2 mmol/L)
Triglycerides	1.5 mmol/L	(Optimal <1.7 mmol/L)
LDL	2.5 mmol/L	(Optimal < 2.6 mmol/L)
HDL	1.9 mmol/L	(Optimal >1.6 mmol/L)

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Corresponding Author

Ng Chong Guan
 Department of Psychological Medicine,
 Faculty of Medicine, University Malaya,
 Lembah Pantai, 50603 Kuala Lumpur,
 Malaysia
Tel: 60379492068

Email: chong_guan@um.edu.my