

A Systemic Review on Covid-19 Impact on Mental Health and Education

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ABSTRACT: -

In human, coronavirus cause respiratory tract infection. Covid-19 belong to the coronavirus family, which also includes the SARS virus (severe acute respiratory syndrome) and MERS (Middle East Respiratory Symptoms) virus. It was first isolated from three people with pneumonia connected to the cluster of acute respiratory illness cases in Wuhan. COVID-19 is initially emerged from WUHAN and then spread to many cities of China and expanded globally including THAILAND (1st exported case), JAPAN, UNITED STATE, PHILIPINES, INDIA, ETC. That disease is jeopardies to 1st line health care workers. Local health authority issues the epidemiological alert on December 31,2019 and market of Wuhan shut down on January 1,2020. The outbreak of COVID-19 is majorly responsible for disturbing the mental health of people. Fear, loneliness is widely spread in pandemic situation due to isolation, quarantine. These Fear, stress, and loneliness feeling is decreases by the literacy like mental health literacy and that elevate the stress and other mental health problems. Literacy helps to remove out the negative thoughts in our mind. The COVID-19 is badly effect on the whole sector but majorly affect on education system. The schools or Colleges are remained close without a clear view of regarding their reopening. Thaw schedule of every student is destroyed badly and use of smartphones increased and various problems developed because misuse of social media.

KEYWORDS:- COVID:19 Pandemic, Mental Health, Stress, Anxiety, Education, Smartphone and social media, Students.

I. INTRODUCTION: -

In last week of December 2019, a previous unrecognisable coronavirus currently it is named as COVID-19 NOVEL CORONAVIRUS is emerged from WUHAN, CHINA. (1). The initial

cases of novel coronavirus (2019-nCoV)–infection pneumonia (NCIP) occurred in Wuhan, Hubei Province, China in December 2019 and January 2020. We analyse data on first 425 confirmed cases in Wuhan to determine the epidemiological characteristics of NCIP (2). The symptoms like Mysterious pneumonia characterised by Fever, cough, Fatigue and that happened in seafood Wholesale wet market in Wuhan, Hubei, China. Initial outbreak was reported in that staff are involved in that market therefore market was shut down on January 1,2020. After the announcement of epidemiologic alert by local health authority on December 31, 2019. The outbreak of disease from Wuhan to many cities of CHINA and it expanded globally including THAILAND, REPUBLIC COREA, JAPAN, UNITED STATES, PHILIPINES, VIETNAM, INDIA, ETC. Upton June 2,2020 at least it spread in 25 countries. The disease is officially named CORONA VIRUS DISEASE 2019 (COVID-19 by WHO on February 11,2020). It is also named as SEVERE PNEUMONIA with novel pathogen on January 15, 2020 by TAIWAN CDC the ministry of health. Due to that it is a communicable disease of 5th category. COVID-19 is a potential zoonotic disease with low moderate mortality rate (1). COVID-19 is caused by infection with severe acute coronavirus 2 (SARS-CoV-2) health care professionals have been confirmed with severe pressing challenges since the onset of outbreak (3). The routes of transmission are in direct contact, droplets and possible aerosols transmission. (4). In the initially stages, most cases had direct contact with wildlife and human-to-human transmission had not yet been demonstrated. Not all hospitals had been equipped with sufficiently protective resources. Subsequently, the number of cases who had recent contact with people from Wuhan rapidly increased. Several clusters of infected individuals have been documented in cities such as WUHAN and HONG KONG (4). Person to person transmission may

occur through droplets or contact transmission. It is jeopardies to first line health care workers. Due to in contact with corona patients. Currently there is no definite treatment although some drugs are not

investigation. Identify the patients and for prevention of spreading of diseases the isolation is needed. (5)



Fig.1 – wuhan

VIROLOGY: -

Coronavirus is an enveloped positive-strand singleRNA viruses. It belongs to the orthocoronavirinae subfamily, as the name with characteristics crown like spikes on their surface. SARS CoV, bat SARS-CoV and other also fall into the genus beta coronavirus. Genus's beta coronavirus can be divided into several subgroups may have mild different biological characteristics and virulence. COVID-19 caused by 2019-nCoV infection is classified as 5th category notifiable communicable disease in TAIWAN on January

15,2020. The exact origin, location and natural reservoir of 2019 nCoV remain unclear, although it is believed that virus is zoonotic and bat may be the culprits because of sequence identify to the bat CoV. The infectious doses for 2019 nCoV is not clear but a high viral lose up to 10 raises to 8 copies/ml in patients' sputum has been reported. Initially viral load increases and then detected up to 12 days after onset of symptoms. Therefore, infectivity of patients lasts for 2 weeks however whether infectious viral partial from patients do not exists at the later stage requires validation. (1)

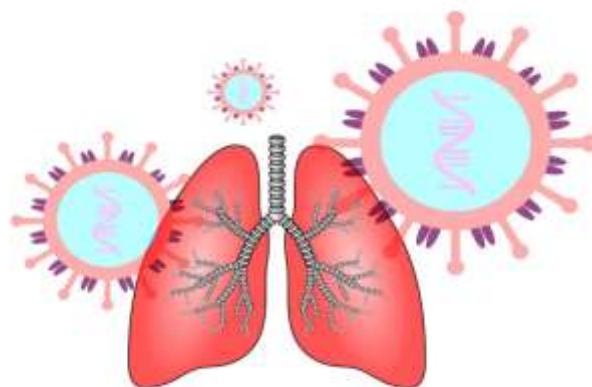


Fig 2- virology of lungs.

EPIDEMIOLOGY: -

The 1st laboratory confirmed cases of nCoV 2019 infection was on December 1,2019 in WUHAN, CHINA (1). Initially 41 people was reported in Wuhan seafood market of HUANAN, local market as infected by nCoV. (3) The Health Commission of Hubei province, China, first announced a cluster of unexplained cases of pneumonia on December 31,2019. The 27 patients were initially reported, which was subsequently revised to 41 on January 11, 2020, with seven severe cases and one death. Theradiographic ground glass lung changes were found in some patients.lymphocyte, and platelet counts; hypoxemia; and deranged liver and renal are occurs

due to the normal or lower than average white blood cell. (5) Local health authority issues an epidemiologic alert on December 31,2019 and market was shut down on January 1,2020. The total 59 suspected cases with fever and dry cough were referred to a designated the JIN-YIN-TAN HOSPITAL. Out of 59 the 41 patients were confirmed to next generation sequencing or real time revers transcription polymerase chain reaction (RTPCR). Out of those 27 patients had history of Huanan seafood market. Symptoms are observed after few days of infection therefore exposure of the coronavirus subsequently started on December month. In those unknown days the cases were spreading from Wuhan to Hubei.

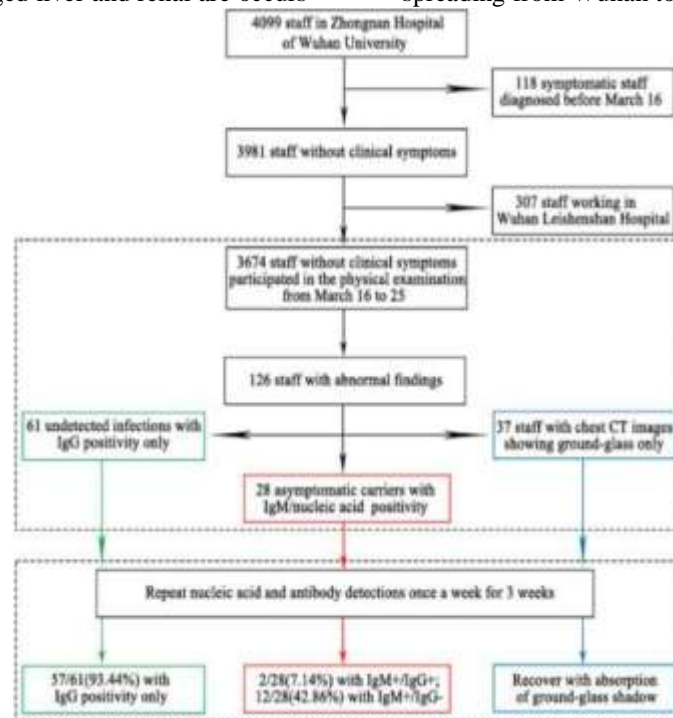


Fig.3. epidemiology

Then from Hubeiprovince to all cities of China and globally spread due to heavy transportation load during the chili's lunar new year. The 1st exported case into the Thailand on January 13,2020 then disease spread rapidly and globally. Not only familiar cluster but also in ocean linear were reported as of February 6,2020. A total 28276 cases confirmed with 565 deaths globally by WHO involving 25 countries. WHO issued a public health emergencies of international concern (PHEIC) alarm on January30,2020(5).Coronavirus infection among humans in Wuhan, China and it speeding around the globe is heavily impacting on the global health and mental health. Despite all

resources employed to counteract the spreading of the virus, additional global strategies needed to handle the related mental health issues. The outbreak is leading to additional health problems such as stress, anxiety, depression, fear, anger globally. Collective concerns influence daily behaviours, economy, prevention strategies and decision making from policy makers, health organisation and medical centres, which can weaken strategies of COVID-19 control and lead to mental health needs at global level (6). Negative changes in physical activity, sleep then it cause the higher depression, anxiety and stress symptoms. (7)COVID-19 deaths count imposed not a direct

but and indirect impact on mental health of human (8).



Fig.4 – history of covid-19

WHAT ARE THE EFFECTS OF COVID-19 PANDEMIC ON MENTAL HEALTH?

The various types of effects of COVID-19 were developed. Like mental effect, economic balance, education system, health related problems remainly affected by pandemic situation.

1. The COVID-19 pandemic brought about major changes in lifestyle of the world population.

2. Due to lack of vaccines and definite treatment on COVID-19 the isolation and quarantine is adapted by the world for stop of the spread of coronavirus. (9)

3. The COVID-19 pandemic provide a unique setting to the effect of negative psychological symptoms on mental health



Fig.5 – mental health

4. Due to that the economy is impaired and that leading to a strong crisis that critically cries poverty in various regions, hence the globally negative impacts in psychologically symptoms and specifically the stress of anxiety, depression increased in population.

5. The outbreak of COVID-19 pandemic considered stressful because (I) Lack of vaccines (ii) social isolation or social distance

6. due to their population the mental health deuteriation translated into an increased negative mental health symptom.... like stress, anxiety, depression etc.

7. Depressive and anxious symptoms can modulate the memory processes. (10)

SOCIAL MEDIA IS AFFECTING MENTAL HEALTH OR NOT?

YES.... SOCIAL MEDIA IS AFFECTING MENTAL HEALTH.

1. In COVID-19 the use of social media, smartphones are increased due to pandemic situation. The behaviour of peoples is disturbed due to lockdown.

2. due to increased social environment the accurate information is spread is necessary. When the

misleading information leak on social media that spread panic condition. (11)

3. misleading information causes psychological effects like anxiety, depression, lower the mood and elevated emotional disturbances. (12)

4. The high proportion of youth is engaged in heavy smartphones. High use of smartphones and media results the chronic sleep and negative impact on mental health. (13)

5. Due to lack of interactions, emotional support become weak, and physical isolation gives lot of stress on people's mind and give negative impact on mental health. (14)

IS STRESS OF COVID-19 IS POSITIVELY RELATED TO ANXIETY?

YES.... Stress of COVID-19 is positively related to Anxiety

1. Stress and Anxiety are some key challenges for psychologist, psychiatrist, behavioural scientist globally

2. COVID-19 has more than 2 years forced a large portion of the population to quickly transition to a new way of life

3. Which is a rapidly evolving global challenge and possess great risk of global health threats people shows a predictable threats responses like stress, anxiety, depression etc.

Why The Coronavirus Is Triggering Mental Health Issues:



Fig.6 – menal health

4. People in response to COVID-19, it is critical to understand the reducing factors associated with stress of COVID-19 and psychological problems like Anxiety, depression
5. Stress refers to an adaptive process tends to show a variety of a reactions when the internal and external environment is unbalanced.
6. Stressful life events such as those investigated by COVID-19 pandemic have a significant influence psychological problems like Anxiety, Depression etc. (15)
7. Anxiety is a psychological and physiological state that can be a normal response to a stressful

- moment, but when that stressful exposure is prolonged the perceived stress level can lead to an appearance of anxiety disorder relationship between stress, anxiety and depression (10)
8. anxiety disorder are the most prevalent mental health condition. It is less than Schizophrenia and depression and anxiety is treatable. (16)
9. Anxiety is a prolong feeling of stress and worry which make it hard to cope with daily life.
10. The purpose of present study is to explore how to stress of COVID-19 is a critical risk factors of Anxiety. (15)



Fig.7 – stress and anxiety

IS MENTAL HEALTH LITERATURE IS NEGATIVELY REALTED TO STRESS OF COVID-19 AND ANXIETY?

YES....Mental health literature is negatively related to stress of COVID-19 and Anxiety.

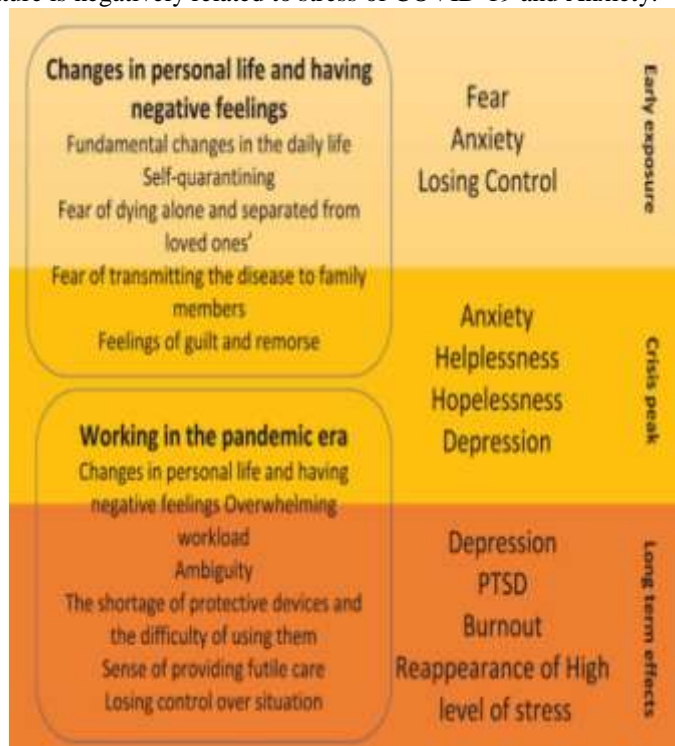


Fig.8 – mental health

1. Although the perceptive of need satisfaction is helpful to understand the potential mechanism of stress of COVID-19 influencing anxiety it is not compressive enough
2. motivation is not only push of internal needs but also pull of individuals existing knowledge or cognitive concepts.
3. In recently years Mental health literacy received more attention. It has found to be an important predictor of supportive attitudes towards mental health problems including anxiety
4. This study focus on the possible mediating role of mental health literacy on stress of COVID-19 and anxiety to a certain extent.
5. Mental health literacy was initially defined by JORN as knowledge and belief about mental health disorder that aiding their recognition, management and prevention.
6. Mental health literacy includes the following domains-
 - i) understanding how to obtain and maintain good mental health (knowledge about mental illness and positive mental health)
 - ii) understanding mental disorder and their treatments.

- iii) decreasing stigma against mental illness
- iv) enhancing help seeking efficacy.
7. The knowledge, good mental attitude and behaviour that individual develops in promoting their own and others mental health.
8. The literature about mental health that may elevate the negative emotion such as anxiety, depression (15).
9. Measures including centralized isolation of all confirmed cases, closure of public areas, closure of cities, closure of schools and closure of borders of the 14 targeted countries according to their timing; by comparing its absolute effect average, its absolute effective cumulative, and its relative effect average. (17)

IMPACT OF PANDEMIC COVID-19 ON EDUCATION

The impact of pandemic COVID-19 is observed in every sector around the world. (14) The impact of pandemic situation on education is very badly affected. The schedule of every student is change and therefore they are worried about their

careers. The COVID-19 pandemic has created largest disruption of education system in human history. (18) Due to the world-wide lockdown student life are disturbed very badly. The lockdown destroyed the schedule of every student, learners

are stopped to move on colleges, school and then educational activities like classes, examinations, internships are automatically stopped (19). Schools and colleges are remained closed without a clear view regarding their reopening (20).



Fig. 9.1-education during covid-19

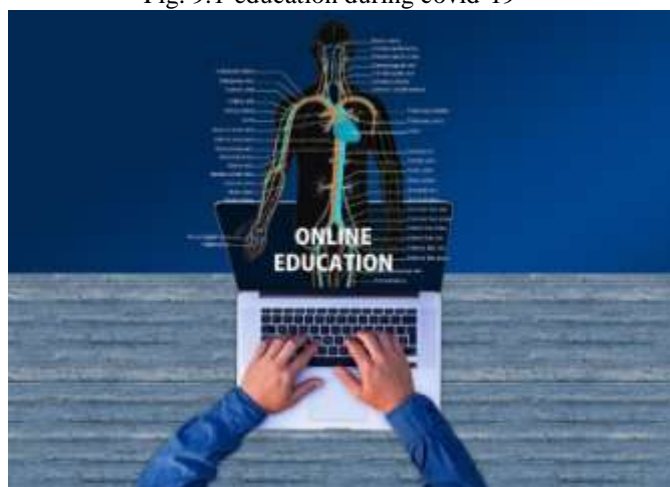


Fig.9.2- online education

The educational sectors has been fighting to survive the crises with a different challenges to wash away the threat of pandemic. Then for educational activities online mode is choose. Initially educators and students are quite confused and did not understand to cope up with that situation. For handling of technology and their issues teachers and students are unprepared. COVID-19 develops many oppertunities for educational institutes and also challenges. Students

continue their educational activities through online mode. Teachers assigned work of student by internate, delivered lectures through apps like zoom, google meet, facebook, youtube etc. There is also whats app group of guardian, teachers, students and parents for affective communication through which they are always touch to share their problems(19). The wide range of acadmicstress is developed due to the ongoing eduaction and students face many stressful Enviornment.(21)

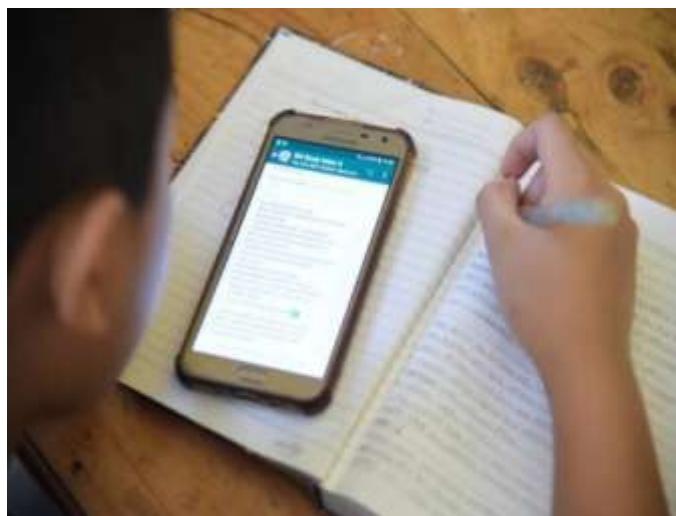


Fig.10 – online education

There are various positive and negative impacts generate on student mentality due to online education.

POSITIVE IMPACT –

1. Move towards blended learning.
2. Rise in use of learning management system
3. Enhance the soft copy of learning materials.
4. Improvement in collaborate work
5. Rise in online meeting
6. Increases digital knowledge
7. Improved the use of electronic medium for sharing the information.
8. Global management increases World wide network
9. Time management with perfect schedule
10. Demand for open and distance learning (22)

NEGATIVE IMPACT –

1. Educational activity hampered
2. Impact on service.
3. Unprepared teachers and students for online activities.
4. Reduced global employment freedom and hopes.
5. Increased the responsibilities of parent to educate their child's
6. Loss of nutrients due to closure of schools
7. Access to digital world
8. Access to global word
9. Payments of school, college are mismanaged (22)

II. CONCLUSION:-

The covid-19 pandemic is clearly and international public health problem. Due to rapid transmission country around the world should

increases attention in to disease surveillance system and scale up country readiness and response operations. In extreme cases, people may suffer from depression characterised by low mood tiredness, pessimism, poor sleep and appetite, feeling helpless, guilty and hopeless with gradual reduction in work output that point older people are more vulnerable and special care must be taken for them.

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