Urban Planning in Response to Global Pandemic to Efficiently Absorb Pandemic Shocks: Psychological Aspect

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Abstract

Cities are a home to most of the population of the world. People move to cities from rural areas in search of job opportunities, education, better life facilities etc. which results in drastic rise in population in the cities. Because of the high population concentration and the economic activities, cities are often hotspots for the faster and wider spread of any infectious related pandemic. The emergence of COVID-19 has once again made city planners to reflect on how prepared they are to control and manage a city during any pandemic and about life in cities post pandemic.

This paper focuses on highlighting the adverse impact of COVID-19 on the mental health and suggesting new ways to help prepare cities to manage the mental health crisis of the city population caused during any pandemic. We will try to understand the factors that leads to mental health distress during any pandemic. Based on the understanding we will try to suggest some ways how city planners can plan and take necessary measures in order to cater for its population's mental health. It is imperative for us all to understand that the root to being a successful nation is by having healthy and efficient man force.

The economic growth of a nation wholly depends on the human labor. No matter how developed a nation is, it still relies on human force to do its work, to run its machines and to grow. Hence, it is needed to make sure that the principal source of economic growth is taken care of and is in good health both mentally and physically. Covid-19 has left the world and its way of functioning altered. Accepting and going by the "new normal" is also a challenge that the entire population of the world is now facing. In order for the population to cope with the altered and post pandemic world, urban planning should be done in a way to efficiently absorb the pandemic shocks mentally.

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Introduction:

The first confirmed cases of the Coronavirus disease 2019 (COVID-19) were identified in late 2019 in Wuhan, Hubei Province, China. Since then, it has become a fully-fledged pandemic that has rapidly swept through many countries (Ayyoob Sharifi, Amir Reza Khavarian-Garmsir, 2020)In the list of problems caused by COVID-19 beside the gigantic number of demise and affected people around the world are - unemployment, loss of business opportunities, health care crisis, travel restrictions, requirements to stay in isolation, adequate food supply and so on. All of these have led to fear, confusion and mental stress among the communities. COVID-19 has not only affected the global population health wise but also monetarily and most importantly the stress and fear has caused deterioration of mental health. Losing a family member is always a deep wound. Many have not only lost their loved ones due to the COVID-19 their misery only got greater by losing their jobs or by facing crisis like failing to provide health care for themselves and their family members. Travel restrictions, social distancing has casted a shadow on the lifestyle of the people. Man is a social animal. "Psychologist Susan Pinker states that direct person-to-person contact triggers parts of our nervous system that release a "cocktail" of neurotransmitters tasked with regulating our response to stress and anxiety. In other words, when we communicate with people face-to-face, it could help to make us more resilient to stress factors in the long run. "Face-to-face contact releases a whole cascade of neurotransmitters and, like a vaccine, they protect you now, in the present, and well into the future, so simply […] shaking hands, giving somebody a high-five is enough to release oxytocin, which increases your level of trust, and it lowers your cortisol levels, so it lowers your stress." (Maria Cohut, 2018) Sadly, man race had to restrain from

receiving this vaccine as social distancing was the only and the most important way to prevent or slow down the spread of Corona Virus.

Attending to mental health has become a crucial need now to save the human race. Depression caused due to COVID- 19 and its affects has caused many to commit suicide. The fear of dying due to COVID-19 has hampered the recovery process of many who have been affected by the virus. All of these have led to the understanding that in order to control and manage a pandemic it is imperative not only to provide proper and adequate health care but also adhere to providing mental health care. For when an individual is not mentally fit they are unable to function properly.

Factors that leads to mental health distress during any pandemic

Many new research shows that, in the sense of infectious pandemics, health services around the world need to strengthen their contingency planning. Many other lay media studies show a rise in mental health problems such as anxiety, depression, symptoms such as posttraumatic stress, insomnia, and frustration in the general public, health professionals, as well as individuals held in isolation (due to infection with coronavirus or contact with infected persons) (Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V., 2020) [i] The increasingly evolving challenges of mental health will destabilize the general well-being of individuals and have enormous potential to affect the health system; thus, intense and effective consideration and intervention is required. As per the particular demographic group, the mental health problems in the society can be complex and categorized.

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(Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y., 2020)The following factors have been identified that lead to deterioration of the mental health during any pandemic:

1. The type of the traumatic event taking place

2. The situations after the event

3. Event rapidity

4. Level of uncertainty involved

5. The potential for personal risk and risk to the family or loved ones

6. Overall impact on the economy, jobs, socio-political organizations

7. Termination from employment

8. Salary cut off

9. Living in isolation

10. Unable to avail basic comforts of life

Apart from the above mentioned factors there are a number of risk factors that may be the reason for the development of psychological symptoms during any pandemic. In our research we came across risk factors categorised under the categories of : Biological, Social, Psychological, Economical and disease specific characteristics. These risk factors are given below :

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Table 1: List of risk factors for the development of psychological symptoms during the COVID-19 pandemic

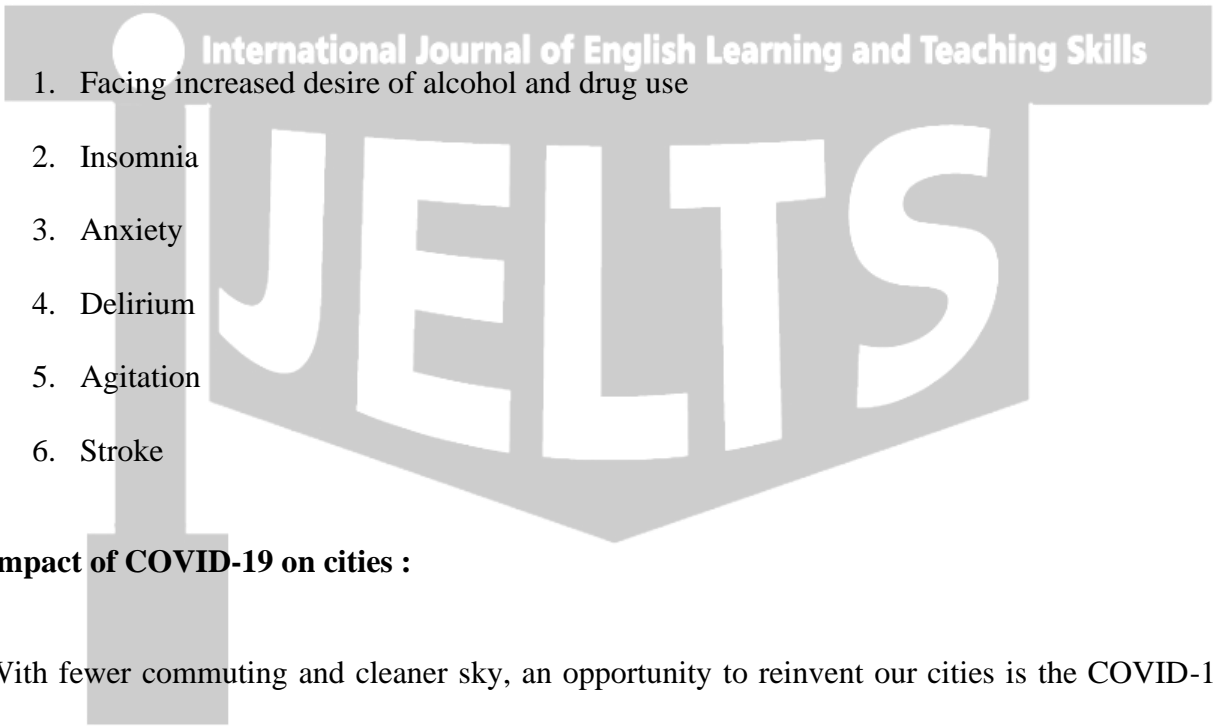| Type	Risk factor
Biological	Female gender[10-12]
	Children[13]
	Elderly[14]
	Physical comorbidities[10]
	Family history of psychiatric illness[11]
Social	Low socioeconomic status[10,15]
	Students[10]
	Living alone[10,15]
	Physical attributes like a China-man[16]
	Lack of resources for recreation[10]
	Poor psychosocial support[17]
Psychological	Previous poor mental health status[18]
	Diagnosed cases of anxiety/depression[10]
	Bereavement of a loved one[19]
	Poor coping reserves[9,20]
Economical	Poor economic condition[10,15]
	Loss or potential loss of job[21]
	Uncertainties regarding economic conditions[15]
Disease specific	Nonspecific flu symptoms[22]
Characteristics of COVID-19	Rapidly spreading infection with the potential of serious illness and death[22]
	Lack of effective treatment strategies[23]
	Lack of vaccine[23]
	Poor understanding leading to governmental and health-care guidelines[23]

Effects of COVID-19 on mental health :

(COVID-19 disrupting mental health services in most countries, WHO survey, 2020)According to a recent WHO report, the COVID-19 pandemic has interrupted or halted vital mental health programmes in 93 percent of countries worldwide, while the need for mental health is growing. A

report prepared by collecting data from 130-country, the first global evidence to explain the detrimental effect of COVID-19 on access to mental health care and demonstrates the immediate need to increase funding. The survey was published on October 10 prior to WHO's Major Event for Mental Health, a worldwide online activism event that will bring together world leaders, actors, and activists in the aftermath of COVID-19 to push for greater engagement in mental health.

Mental and Neurological issues triggered by COVID-19 :

1. Facing increased desire of alcohol and drug use

2. Insomnia

3. Anxiety

4. Delirium

5. Agitation

6. Stroke

Impact of COVID-19 on cities :

With fewer commuting and cleaner sky, an opportunity to reinvent our cities is the COVID-19 pandemic. The effect of the ongoing global crisis caused by the COVID-19 pandemic, which incorporates health, economic and social problems, continues to develop and is multi-dimensional. Before the pandemic 25-30 individuals migrated per minute to Indian cities. Economic shutdowns, employment shortages and a shortage of livelihoods for refugees, are the impacts of the pandemic on cities. Knowledge employees move away from cities, searching for green fields, as well.

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Impact of COVID-19 on students:

Prior to the lockdown the learning process of the students involved face to face interaction with their teachers and friends, But due to the pandemic and the global lockdown 91% of the global students have been impacted negatively. Being confined at home has caused uncertainty and anxiety that is hampering the students' educational, physical, and mental growth. The lack of a long-term organised school environment contributes to interruption of schedule, frustration and a lack of new strategies for participation in numerous academic and extracurricular activities.

<u>Suggestions on City Planning to cater to the mental health</u>

As mentioned in the abstract of our research this paper is focused on the adverse impact of COVID-19 on the mental health and suggesting new ways to help prepare cities to manage the mental health crisis of the city population caused during any pandemic.

(OECD Policy Responses to Coronavirus (COVID-19), 2020)Life after COVID-19 will likely be a life with COVID-19. Beyond the public health emergency to reduce the spread of the virus and protect citizens' health, the pandemic and its aftermath are prompting cities to rethink how they deliver services, how they plan their space and how they can resume economic growth. Some cities are already looking beyond the crisis to the recovery efforts that will be required following the COVID-19 outbreak. Cities have always been places of creativity and innovation, and local leaders

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are ensuring this will be the case once again. The pandemic has brought to attention that in order to create liveable cities the population needs to be given the prime concern.

Following our study we now suggest some ways for city planners to keep in mind while doing urban planning to efficiently absorb post pandemic shocks:

1.   In order to health safety and to reduce the risk of infection city infrastructure like parks and pedestrians should be done in such a way to allow for social distancing. When we reduce the risk of infection spread the result will be lower number of infected people. This in turn will reduce the fear and stress of being affected in the minds of the people.

2.   Buildings and cities should be designed in such a way to increase people's access to high quality and well maintained green spaces. No matter how modern or digitalized we get, man at the end of a tiring day longs to get back to the nature. Building a city with green spaces will provide its residents with a relaxing mood and help to detox their mind from the stress. When we have a city with green space , even if people are in lockdown situation but are able to stand in their balcony and see the greenery around will find some solace.

3.   The design of active mobility alternatives, including secure and accessible walking and cycle paths, is a vital opportunity, harnessing not just the advantages of exercise but also the elimination of stressful, sedentary travel, with the additional bonus of freeing up leisure time and sleep time to help promote good mental health.

4.   Hosting campaigns to care for mental health will raise awareness in people to come up speak about their depression or stress. In 2020 we have witnessed the highest number suicide cases in India. Starting from celebrities to ordinary people due to the job loss resorted to suicide following depression. Through campaigns

5.   Not just city planners but the Government should start a scheme to provide "Unemployment benefit" during a time of pandemic. Due to the job loss and financial insecurity many slip into depression, but if people find a financial help there will be some peace of mind.

6.   One way to deal with mental illness or depression is to talk out your worries. City planners can plan on building a centre where they will provide toll free number for providing talk therapy. As we are aware any sort of psychological therapy involves huge expenses. But if during a time of pandemic the city is able to provide talk therapy through toll free number it will be able to aid its population.

7.   Building mental health clinics is another suggestion that we want to bring to light. By mental health clinic we are not referring to mental asylum but clinics where people can go and find psychological treatment at a minimal cost and not having to pay high fees that are charged at private clinics.

Conclusion:

It is important to focus on the fact that people are the backbone of cities. In order to build a city that can efficiently absorb pandemic shocks the thought of designing a city promoting mental health and wellbeing, opportunities must be seen and used not just by the public health

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experts but also by the city planners and the Government. In order for the population to cope

with the altered and post pandemic world, urban planning should be done in a way to efficiently

absorb the pandemic shocks mentally. For when a nation is mentally fit that is when they are

creative and efficient.

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