

## COVID- 19 Pandemic and mental health of people with diabetes

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### ABSTRACT

COVID-19 has spread rapidly since its initial identification in Wuhan city and shown a wide spectrum of severity. Early isolation, early diagnosis and early management can collectively contribute to better control of the disease and outcomes. The situation of lockdown and social distancing we experienced first time. It can be stressful and develop many psychological problems. Some groups of people have high risk of developing psychological problem such as old aged people, children and people with disabilities and people with chronic diseases. Diabetes is one of the major cause of morbidity and mortality throughout the world. This condition is related with many macrovascular and microvascular complications that affect the patient's overall survival. And there is an increased risk of depression, anxiety and other mental disorders in people living with diabetes. Increased mortality in individuals with diabetes in the presence of depression and anxiety (Naicker, et al, 2017). Mental health comorbidities of diabetes compromise adherence to treatment and thus increase the risk for serious short and long terms complications, which can result in cognitive decline, decreased quality of life and premature death. Therefore, keeping these point in the mind in this article, the researchers attempt provides a better understanding of the impact of COVID-19 pandemic on mental health of people with diabetes, and its management technique to which they keep maintain their mental health.

**Keywords:** Covid-19, Corona Virus Disease-2019, Mental Health, Diabetes

The end of 2019, a novel coronavirus was identified as the cause of pneumonia cases in Wuhan, a city of China. It rapidly spread thereafter, resulting in an epidemic throughout China, with quick spread globally, affecting now nearly every country (International Diabetes Federation, 2020). This pandemic affected every aspect of human life as: education, social, economies, and physical health as well as huge impact of mental health because we experienced first time the situation of lockdown, quarantine, and social distancing. It can be stressful and develop many psychological problems. Murthy (2020), state that the psychological effects of the pandemic are best understood in terms of psychiatric and psychological problems that were present *before* the pandemic and the pathoplastic effects of the pandemic on these problems; the response to social isolation and lockdown; the psychological response to the diagnosis, public responses to those with symptoms suggestive of Corona Virus Disease-2019 infection, as well as the aftermath of the infection. Several

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researches revealed that psychological effect due to natural disasters such as; floods, hurricanes and earthquakes (Norris, 2005, Lazars, Jimerson & Brock, 2002; Solomon & Green,1992) and similar psychological consequences may occur following infectious disease outbreaks.

Due to rapidly spread the covid-19 pandemic people faced fear, anxiety, depression, hopelessness, worthlessness that direct effect the mental health of all the population but some of them are most vulnerable people. So it is important to identify the populations in which there is a higher risk of developing mental health disorders during a pandemic. Some groups of people have high risk of developing psychological problem such as: old aged people, children, pregnant woman, people with disabilities and people with chronic health problem (Diabetes, heart disease, lung disease etc.). This is more common in people who have other health problems, particularly the elderly, those with cardiovascular disease, diabetes, chronic lung disease and hypertension. Diabetes is one common among all of them. Prevalence of diabetes, about 422 million people worldwide have diabetes, particularly in low and middle-income countries (WHO, 2020). People with diabetes among those high risk categories that can have serious illness (like-flu) if they have a virus. Although there is still no solid research on the relation between the virus and diabetes. The COVID-19 infection is a double challenge for people diabetics. First, diabetes has been reported to be a risk factor for the severity of the disease and at the same time patients have to control glucose in situation (Madsbad, 2020). Second is, diabetes and psychiatric disorders link a bidirectional relationship and both influenced to each other in multiple ways (Balhara, 2011).

### ***What makes diabetics at a higher risk for mental health issues during the COVID-19 pandemic?***

- Diabetics have a higher risk for hypoglycemia / hyperglycemia problem due to COVID-19 including the risk for hospitalization and the requirement of hospitalization contributes to significant stress, anxiety, and other related mental health problems.
- Due to comorbidities diabetes patients have high risk of developing diabetes distress, depression and anxiety because prevalence of comorbidities high in people with diabetes (Lglay et al, 2016).
- Diabetics are likely to experience more stress and difficulty in diabetes management during lockdown.
- Due to COVID–19, quarantine can lead to physical, emotional and financial stress, boredom, loneliness, loss of personal freedom, and lack of social togetherness in diabetics.
- Social isolation is one of the important risk factors for mental health problems like frustration, depression and anxiety in diabetics.
- Difficulties adapt a new set of routine work in lockdown period cause of psychological problem in diabetic population.
- People with diabetes are more likely to develop mental illness as compare to people without diabetes.
- Inadequate stock of medicine and essentials can lead to stress related diabetes. Due to restrictions enforced in lockdown health related anxiety may develop to maintain glucose levels in diabetes.
- Diabetics have higher chances of worsening of pre-existing medical and psychiatric illnesses because of difficulty in ensuring regular medication and routine health care due to COVID-19 related restrictions.

***Mental health issues***

- Feeling anxious, boredom, panic attacks, sleeplessness, feeling of emptiness, fear of contracting COVID-19, fear of spreading the infection to others, health anxiety, feeling of imprisonment, anxiety related to uncertainty about future, death anxiety and anxiety about diabetes management are some of the psychological issues that can occur in diabetics.
- Some of them may develop depression, anxiety disorders, post-traumatic stress disorder, hypochondriasis, Obsessive compulsive disorder, eating disorder, substance use and related psychiatric disorders in these stressful situations.

***Tips of Diabetes management and mental health during COVID-19***

- First of all, increasing the awareness about mental health issues among the diabetics and their family members through media and social media (Online programs, website, online forum, group email or messages).
- Keep a stock of all required and essential medicines to manage and control the diabetes. As we know diabetes is a lifelong disease and people with diabetics are dependent on insulin injection or medication to control glucose level in the body. Therefore, they should keep sufficient stock of medicines for diabetes management during lockdown. In this way, they can reduce their diabetes distress.
- Deep breathing is one of the best ways to lower stress in the body. Through deep breathing whole the body and mind feel relaxed. Breathing exercises are effective technique to relax, reduce tension, and relieve stress and anxiety, better sleep, increase control of emotions, and it also can help to diabetes management. There are lots of breathing exercises for relaxation and all can help to relax and relieve the stress (Stress Management: Breathing Exercises for Relaxation,2019).
- Expert suggested that include the mindfulness techniques in routine to reduce negative emotions and improvement in cognition. Mindfulness is a psychological process of bringing one's attention to the present moment. Mindfulness meditation refers to the state of awareness that arises through paying attention, on purpose, in the present moment, without judgment (Baer,2003). The practice of meditation is link with reduction in stress and negative emotions and improvements in attitude, health-related behavior and coping skills. Lots of studies evaluated the role of mindfulness-based stress reduction in diabetics and demonstrated modest improvements in body weight, glucose control and blood pressure (Priya, Kalra,2018). Levine et al (2017), stated that mindfulness meditation helps to improve the autonomic and endocrine regulation of vascular tone because of that leading to better cardiovascular health.
- The natural course of diabetes is also influenced by the brain. The neuro-cognitive relaxation experienced with mindfulness meditation can help reduce counter regulatory hormone levels. Muscle contraction and relaxation, which is a part of mindfulness meditation, may help to improve sensitivity of insulin receptors (Kalra, 2018). Mindfulness meditation is one of the technique of reduce the complication of diabetes and improvement in mental health. Diabetics can easily manage their diabetes and mental health through meditation. Therefore, mindfulness practice may be beneficial for diabetics. Online course of mindfulness also available on various yogic websites.
- During lockdown exercise at home. Exercise can make easier to manage stress as well as the symptoms of diabetes. Many people are able to live well with diabetes thanks to combination of medication, health education, a food plan tailored just to them and exercise. Regular exercise can increase insulin sensitivity, which means that blood sugar is allowed to enter in muscle cells and provide energy. In the time of restricted

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movement, for instance during a lockdown or quarantine, diabetics can do home -based exercise with appropriate safety and precautions are essential.

- This lockdown period can be best time for skills development. People with diabetes also can developed a self-management skill to manage diabetes and care themselves. Self-management refers the people have to make choices and decision about how to manage their life and their diabetes through good self-management (Diabetes, U.K, 2009). People with diabetes develop skill for self-monitoring, blood glucose, blood pressure, weight, healthy diet, exercise, medications and build confidence and practicing new behaviors and work on unhealthy habit (Hill, 2013). Self-management is an effective technique for improving clinical outcomes and better quality of life. This using lockdown time properly will reduce frustration and boredom.
- People with diabetes are advised to defer visiting clinics/ hospitals for their appointment for minor issues. In the situation of pandemic, there is a need for using other modes of communication (online chat, email etc.) with doctors and other health care professionals.

### CONCLUSION

In conclusion, this article suggests that Corona Virus Disease-2019 is a wide ranging, substantial and long-lasting. It significantly affects the people with diabetes are more prone to stress and anxiety. Therefore, people with diabetes are advised to manage properly their stress and level of glucose by using some common technique as; do adequate exercise at home during lockdown, and do yoga and meditation daily and make busy to themselves in skill development and other creative activities. These all can help to keep balance their mental health and achieve mindfulness state. We hope that this article can provide a meaningful information for future research and ultimately contribute to better management with the situation of lockdown, for people with diabetes.

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