Healthcare Physician Response to Questionnaires in regards to Covid- 19 Impact in Diabetes Mellitus Patients

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Abstract

Aim: To identify level of awareness of COVID-19 infection in health care professional and diabetes mellitus patients with the help of questionnaires and its implication on the health of individuals.

Material and Methods:
Questionnaires were formulated and it was sent to the medical health care professionals. After obtaining the consent, the parameters were assessed using a questionnaire format.

Results:
Total 152 numbers of subjects had responded to the questionnaire and it was found that majority of the healthcare professional and patients were well versed with COVID-19 and its impact on the health. Nearly 78.90% of diabetic patient were aware about the impact on human being based on replies given by health care providers. It was well established by the answers to various questions that there was an increase in weight of patients and glycemic profile of patients were deranged due to multiple factors. Almost 67.10% were aware of ICMR guidelines as per the feedback by the healthcare providers. Many were confused due to repeated changes in guidelines from multiple health organizations. All preventive methods and various do's and don'ts were well known by all the Healthcare professionals and to larger extent it was also well known to general population which includes established diabetes mellitus patients. Based on the feedback on questionnaire in this study it was noted that almost 32.40% patients gained weight due to multiple factors. In terms of diet it was seen based on reply that nearly 49% of patients had skipped one meal which could be breakfast, lunch or dinner. It was noted from the reply of questionnaire that there were many treatment and prevention protocols which were provided by various infection control boards.

Conclusion:
COVID -19 is seen as a major pandemic, it has caused higher mortality in people with high-risk individual predominantly. This study based on questionnaire have shown that almost all the healthcare professionals are trying to educate their patients and majority of patients are well versed with the Covid-19 and its impact in diabetic population.

Keywords: Type 2 Diabetes Mellitus, COVID-19, Covid -19 Questionnaires, ICMR guidelines.

INTRODUCTION

The on-going pandemic of COVID-19 is the major global health issue. Evidence implies that patients with pre-existing diabetes are at increased risk of severe disease or death due to COVID-19 when compared to individuals without diabetes. However, the mechanism is not clearly understood why there is

differential effect in individuals with and without diabetes. [1-2] This study was conducted to develop and validate a Questionnaire to assess changes in individual's lifestyle-related behaviour, impact on diabetes, awareness about COVID 19 during this pandemic.

Coronavirus disease 2019 (COVID-19) is an infectious disease which is developed by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). This disease was reported in December 2019 in Wuhan city (China) and then rapidly spread to other cities and also to all the countries, resulting in the on-going pandemic in more than 200 countries worldwide. Covid -19 is the single most critical issue in worldwide and on-going researches for effective therapeutic and preventive agents for the treatment and management of COVID-19. [2-4]Although no therapeutic agent has been found to be effective for the management of COVID-19 yet, however, there is an increasing body of evidence suggesting it has strong associations with certain clinical conditions such as diabetes mellitus (DM). While the overall rate of death is lesser than 6 per cent with COVID-19 disease patients, but patients with history of DM are at a higher risk of developing complications. Multiple studies suggest that patients with established case of diabetes whose glycemic levels are poorly controlled have around four times higher death rate and length of hospitalization stay is longer compared to patients without DM. Although more evidence is needed to confirm these findings, it has been shown that DM increases the risk of COVID-19 complications. However, the specific molecular interactions between DM and COVID-19 are not understood well. In the current study, we will discuss possible molecular interactions between DM and COVID-19 for potentially developing some novel preventive and therapeutic agents against COVID-19 in patients with Diabetes Mellitus. [2-6[

Introduction:

COVID pandemic has led to life-changing challenges among people across the globe. Terms like "social distancing" and "self-isolation" have become a reality. As people are trying to get accustomed with this, the confinement has drastically impacted citizens' lives bringing about a sudden and radical change in their daily routine and lifestyle.

Isolating Socially for long period due to lockdown has led to stress and boredom which may lead to greater tendency of overeating in individuals especially "comfort foods" which are usually high in calorie index, and rich in carbohydrate levels leading to obesity and superadded it has resulted in less outdoor activities and prolonged screen time which could lead to predisposition to multiple health issues.

Diet and Lifestyle plays a critical role in the development and management of type 2 diabetes mellitus (T2DM). This pandemic may take a longer period of time to subside, due to which it has changed the lifestyle and dietary patterns which is good for some who follow healthy lifestyle and bad for those who follow the comfort food patterns which is high in calorie index and it will have a detrimental impact on the health status of T2DM patients.

It is really important for the physicians and Diabetologist to study the impact of COVID-19 on lifestyle-related behaviour of people who are diabetic and who are at risk of developing T2DM.

Coronaviruses are a family of viruses with a genomic size of nearly 26 to 32 kilobases and a size of 80–220 nm in diameter, making them larger among the set of all RNA viruses. It has a shape which is spherical in nature with a crown or "corona" of club-shaped spikes on their surface. This virus gains entry via the S protein (spike) by binding to the cell surface receptors. It is then cleaved into two functional subunits known as S1 and S2. Once the binding of S1subunit occurs to the specific receptor it leads to a conformational change which eventually leads to triggering in the S2 subunit, followed by several molecular sequential steps occur which leads to viral delivery into the cytoplasm. Until today, seven types of viruses from this family are found to infect humans which are SARS-CoV, MERS-CoV (Middle East respiratory syndrome coronavirus), SARS-CoV-2, HKU1 (Human coronavirus 1), NL63 (Human coronavirus NL63), OC43 (Human coronavirus OC43), and 229E (Human coronavirus 229E). While the first three viruses are linked to severe respiratory infections, others commonly cause mild upper respiratory symptoms.

SARS-CoV-2 is a single-stranded belonging to coronavirus family which was recently discovered in late 2019 as responsible for the COVID-19 pandemic.

It was discovered first in Wuhan, the capital of China's Hubei province. COVID-19 is now rapidly spreading in more than 200 countries. The commonest symptoms are Fever, fatigue, cough, shortness of breathing, chest pain, and loss of smell. However, in severe cases, it can cause severe lower respiratory tract symptoms and low oxygen saturation in the blood resembling acute respiratory distress syndrome and may require mechanical ventilation. On 30th January 2020, The World Health Organization (WHO) confirmed that the COVID-19 outbreak as a Public Health Emergency, and it was labelled as a pandemic on 11th March 2020. The primary strategy for managing COVID-19 currently is only symptomatic treatments and supportive care in addition to isolation, and experimental therapies. [3-5]

DM increases the complications of COVID-19 and the risk of COVID-19 related mortality. Current evidence demonstrates that patients with DM are more likely to experience severe symptoms and complications than patients without DM due to COVID-19. One hypothesis is that hyperglycemia facilitates the virus entry into the cells since ACE2 and virus both need glucose for their function. Although to understand the interactions between COVID-19 and DM requires more research [3-10]

Material and Methods:

22 Questionnaires were formulated and circulated to all the health care practitioners only after obtaining the consent. Total 300 practitioners were sent the Questionnaires and only 152 practitioners have provided the feedback on all the Questionnaires.

Both positive and negative response against each question was recorded in a excel sheet. In addition to the above age, gender type was also recorded. The data obtained was analyzed using spss 20.0 software.

Questionnaires were as follows:

- No: of Responder and Gender type
- Are Diabetic patients following diet and exercise during lockdown?
  1) Daily 2) Weekly Twice 3) Once a week 4) Not following Diet & Exercise
- Frequency of testing blood sugar during the lockdown by DM Patients?
  1) Regularly 2) Sometimes 3) Rarely 4) Never
- Duration of diabetes?
  1) less than 5yrs 2) 5-10years 3) > 10years
- Type of diabetes which you have seen more in Lockdown?
  1) Type 1 DM 2) Type 2 DM 3) Others
- Are you and your patient worried about corona virus?
  1) Yes 2) No 3) Maybe
- Is your Diabetic patient aware how corona virus affects human being?
  1) Yes 2) No 3) Maybe
- Are you aware of latest ICMR guidelines?
  1) Yes 2) No 3) Maybe
- Have you read about articles in relation to COVID-19?
  1) Yes 2) No 3) Maybe
- Is your Diabetic patient aware of the symptoms of the COVID-19?
  1) Fever 2) Tiredness 3) Sore throat 4) Cough 5) Diarrhea 6) Shortness of breath
  7) Joint pain 8) Loss of taste 9) Myalgia 10) Other
- How the spread of COVID disease occurs?
  1) Air Borne 2) Close Contact 3) Droplet Transmission 4) Contagious 5) Touch 6) Hand shaking
- Are your Diabetic patients avoiding Social / public gathering?
  1) Yes 2) No 3) Maybe
- Who should wear a face mask is known to your Diabetic patients?
  1) Health care professional 2) person coughing 3) sick patients with respiratory manifestation 4) patient with nasal congestion 5) patient with h/o of sneezing 6) Others

- How frequently your Diabetic patients were washing hands during this pandemic?

    1) 1-2 times /day 2) 2-5 times /day 3) 5-10 times /day 4) > 10times per day

- Do your patients believe there is treatment for this Disease?

    1) Yes 2) No 3) Maybe

- Weight change during COVID-19 in your Diabetic Patients?

    1) Lost weight 2) Gained 3) some weight 4) weight stable 5) Don't Know

- During COVID pandemic, probability of skipping one of the main meals (breakfast/lunch/dinner) changed in your Diabetic Patients?

    1) Yes 2) No

- During COVID pandemic, how has intake of a balanced diet (including healthy ingredients such as whole wheat, pulses, legumes, eggs, nuts, fruits and vegetables) changed?

    1) Yes 2) No

- During COVID pandemic, interest in learning healthy eating tips from the media (newspaper articles/magazines blogs/videos/TV shows/text messages) changed in your Diabetic Patients?

    1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree

- During COVID pandemic, stress and anxiety levels changed in your Diabetic Patients?
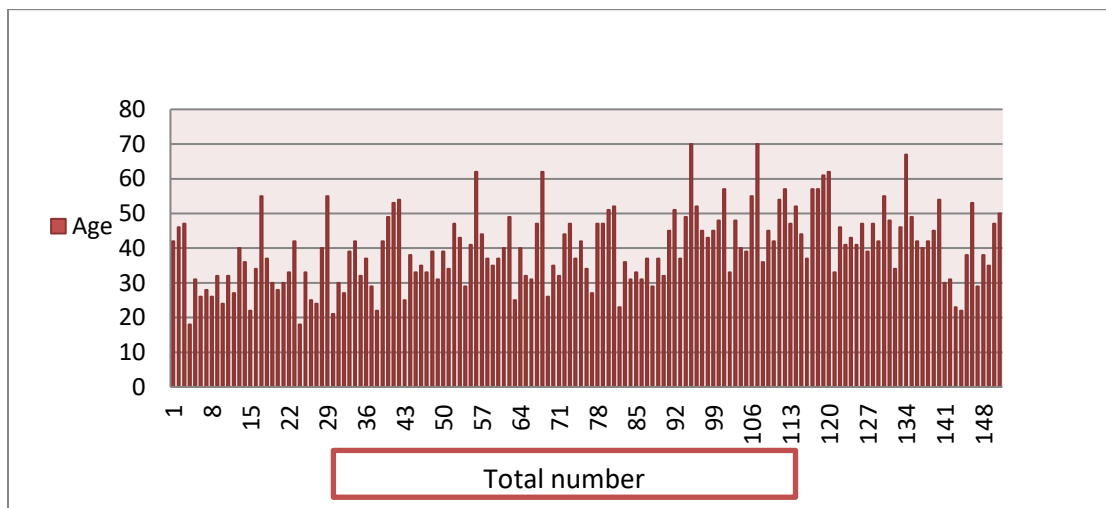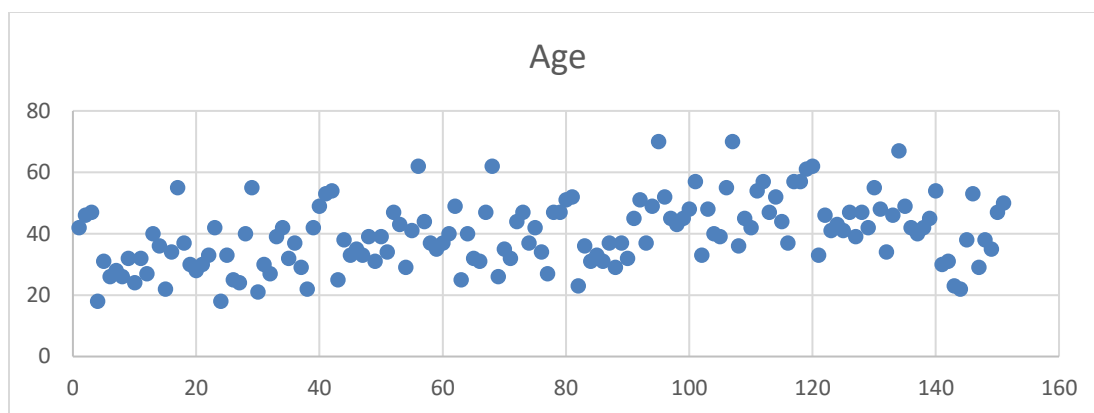
    1) Yes 2) No 3) Maybe

- During COVID pandemic, intake of nutrition supplements to boost immunity changed in your Diabetic Patients?

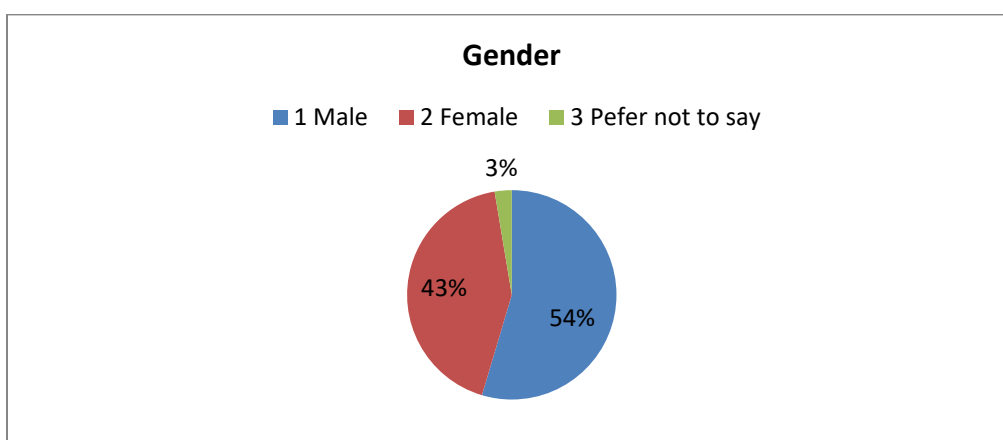   1) Yes 2) No 3) Maybe

**Results:**

1) **Age:**

Age

In this study there were people in range between 18 years to 70 years who have given the consent for the feedback on the Questionnaires

2) Gender:

Gender

S.no	Gender	Number
1	Male	83
2	Female	65
3	Prefer not to say	4

3) Are Diabetic patients following diet and exercise during lockdown?

Are all Diabetic patients following diet and exercise during lockdown?
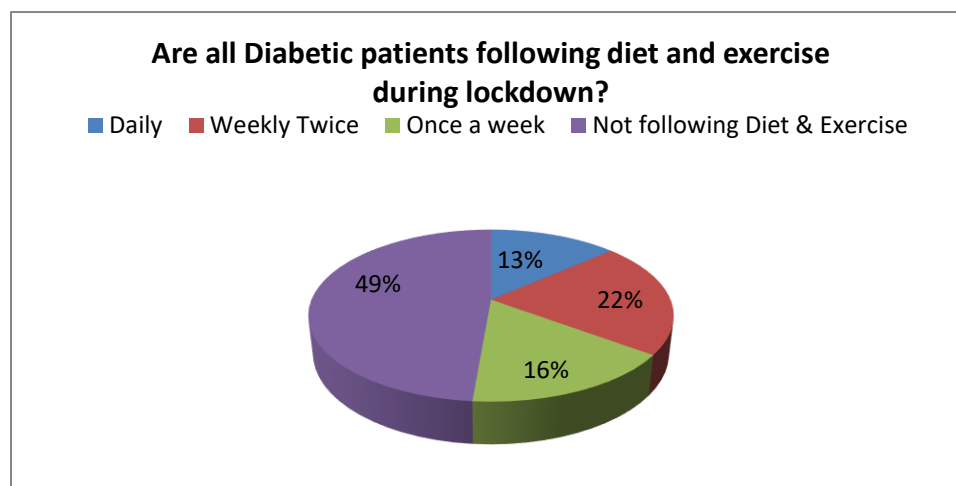
Daily	**13.00%**
Weekly Twice	**22.00%**
Once a week	**16.00%**
Not following Diet & Exercise	**49.00%**

The feedback obtained, in regard to diabetic patients following excercise and diet during lockdown, it was seen that 13% of population was following the diet and exercise dialy whereas majority of patients i.e. 49% were not following diet and exercise as per the feedback given by healthcare practitioner.
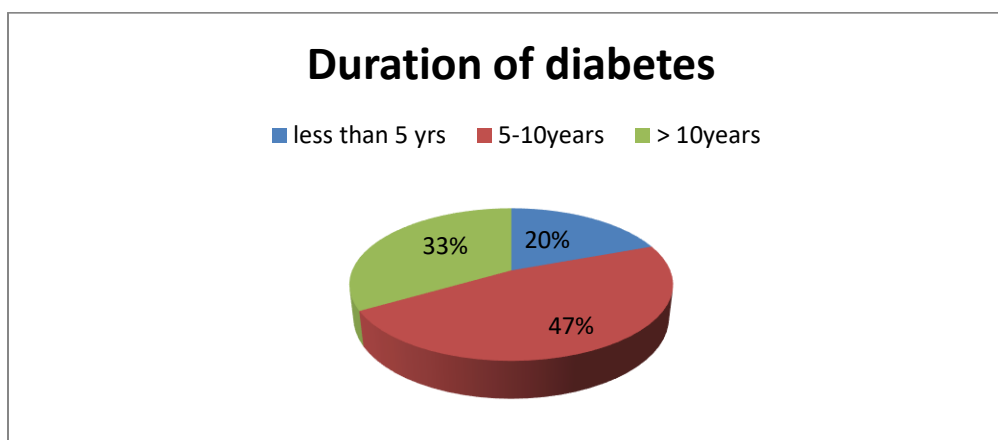
4) Frequency of testing blood sugar during the lockdown by DM Patients?
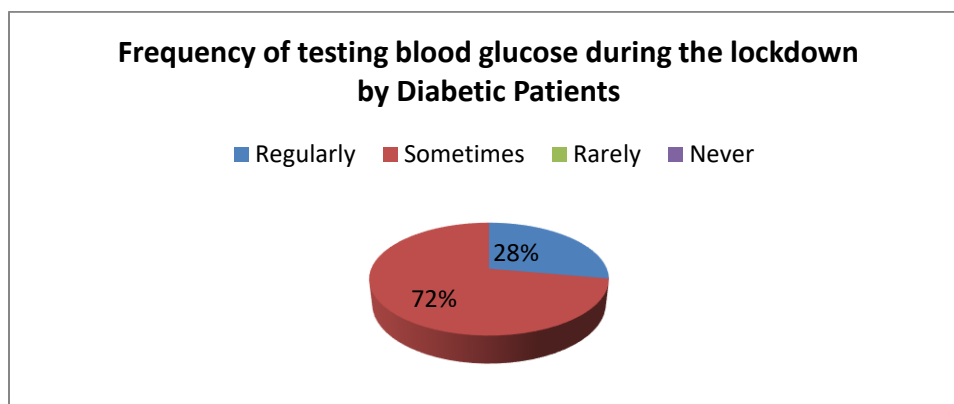
Regularly	**27.80%**
Sometimes	**72.20%**
Rarely	**0%**
Never	**0%**

In this feedback on questionnaire, it was noticed that people who were checking blood sugar levels regularly constituted only 27.80% whereas almost 72.70% were checking the blood glucose levels sometimes.

5) Duration of diabetes?

Duration of Diabetes	
less than 5yrs	19.40%
5-10years	47.20%
> 10years	33.30%

In this study, it was found that people with newer onset or less than 5 years duration of diabetes mellitus were nearly 19.40% whereas patient with chronic diabetes of more than 10 years duration were almost 33.30%, with this we can assume the occurrence of newer onset of diabetes patients were not huge which was predicted by many experts
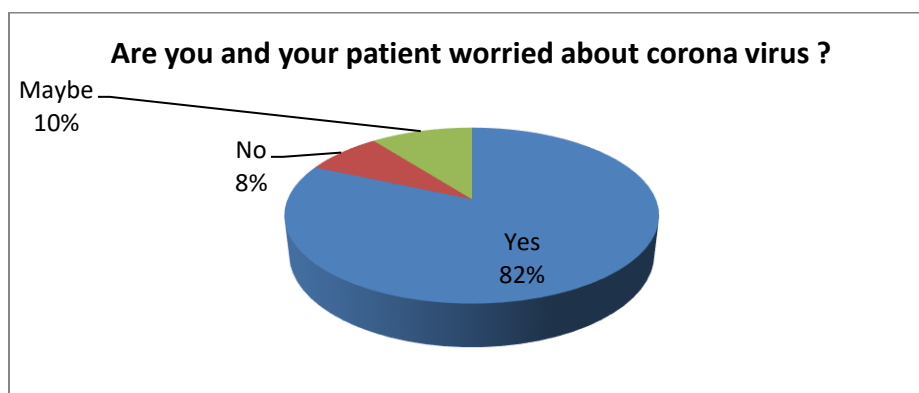
6) Type of diabetes which you have seen more in Lockdown?
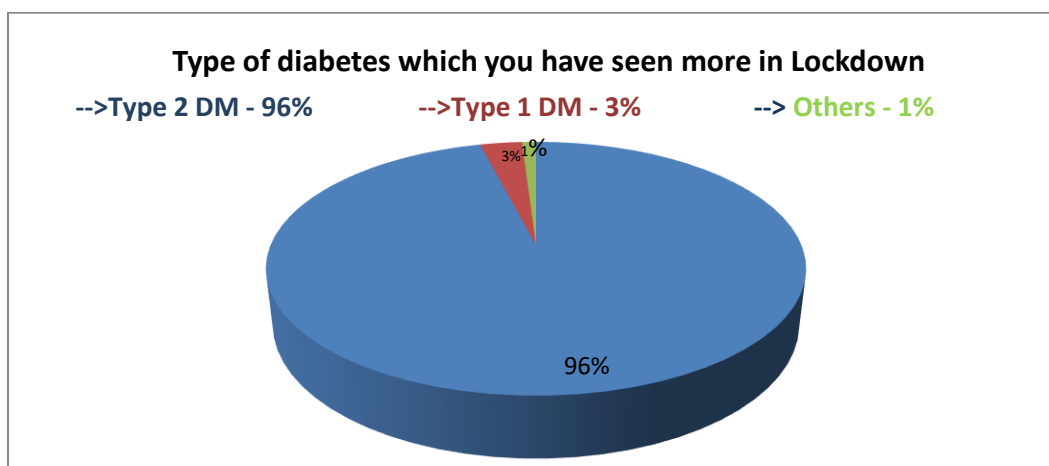
Type 2 DM	96%
Type 1 DM	3%
Others	1%

It was noted that many practitioners have seen predominantly Type 2 Diabetes mellitus patients; it is difficult to evaluate how many were new onset of diabetes mellitus patient, which will be done in follow-up study.

7) Are you and your patient worried about corona virus?

Yes	81.60%
No	7.90%
Maybe	10.50%

This question was very significant because it was not the patient but the practitioners were also worried of covid-19 infection, due to multiple factors.

8) Is your Diabetic patient aware how corona virus affects human being?

Is your Diabetic patient aware how corona virus affect human being?
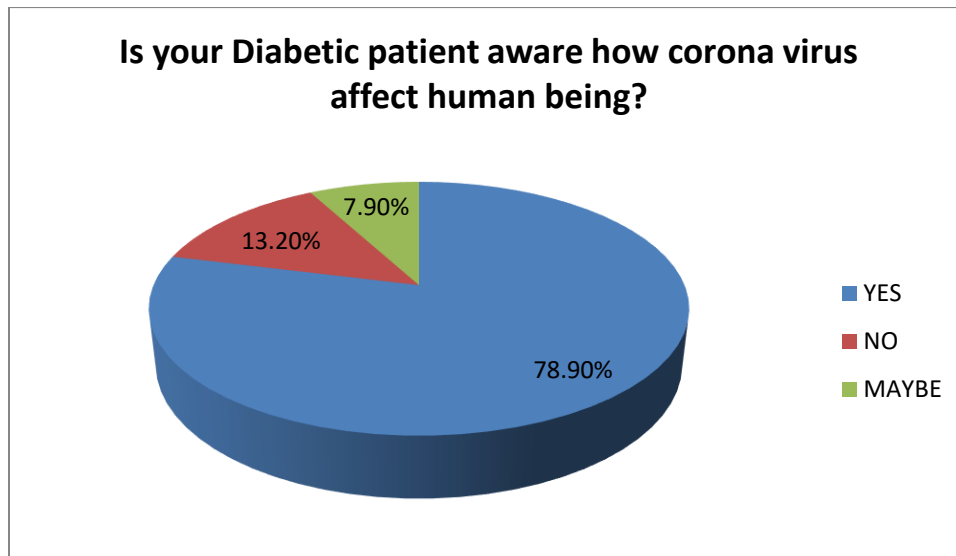
Yes	78.90%
No	13.20%
Maybe	7.90%

It was confirmed by this question that majority of patients i.e. 78.90% were aware about the covid-19 and its impact on human beings, and 13.20 % of thought it is still not a virus which was communicated to healthcare practitioners by their patients.

9) Are you aware of latest ICMR guidelines?

Are you aware of latest ICMR guidelines
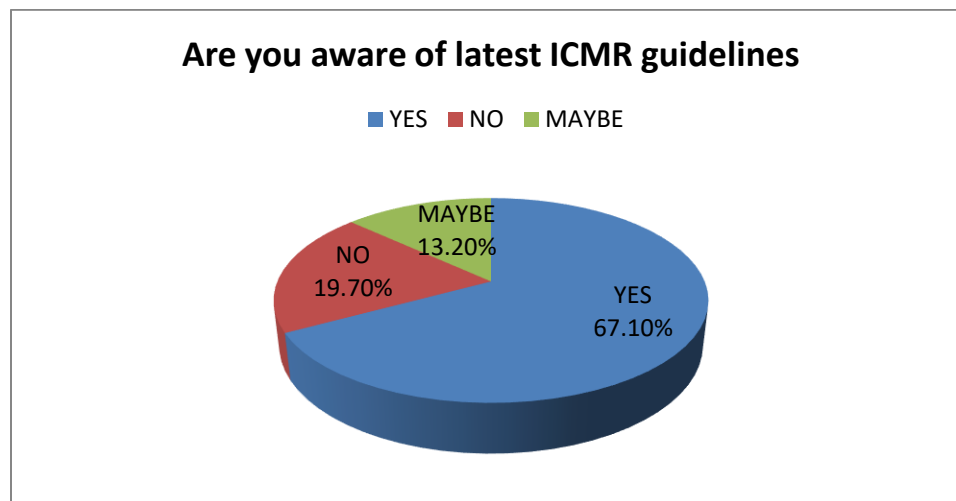
Yes	67.10%
No	19.70%
Maybe	13.20%

It is a very important question for health care practitioners, because multiple guidelines and various regimens were circulated and a lot of confusion was there. Based on the information it was established that 67.10% were well known about the latest guidelines by the ICMR and Health care Ministry of India consensus guidelines and utilized these guidelines in practice.
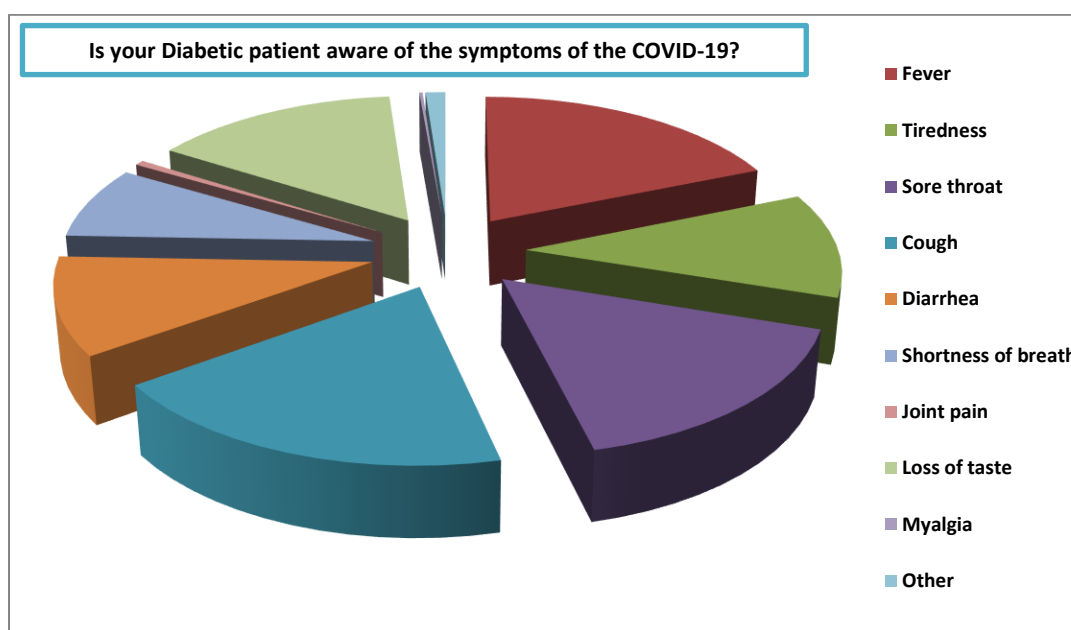
10) Have you read about articles in relation to COVID-19?
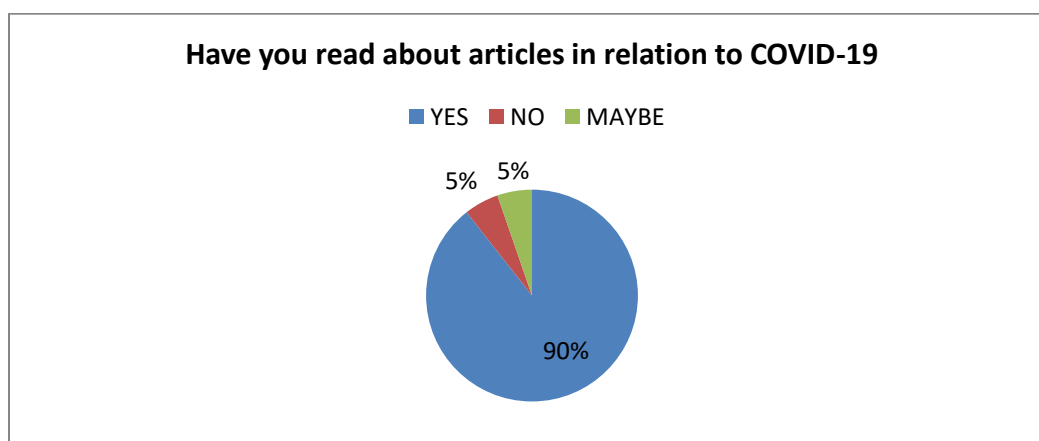
Yes	89.50%
No	5.30%
Maybe	5.30%

Almost 90% of healthcare profession were updated and have been constantly updating their knowledge in regards to covid-19.

11) Is your Diabetic patient aware of the symptoms of the COVID-19?

Page274

Fever	96.10%
Tiredness	57.90%
Sore throat	82.90%
Cough	96.20%
Diarrhoea	53.90%
Shortness of breath	40%
Joint pain	2.90%
Loss of taste	75%
Myalgia	1%
Other	6%

This was very important question to know what the diabetic patient think or whether they have knowledge of symptoms or signs in regards to Covid-19. It is very clear that majority of patient were well aware of symptoms and signs in regards to covid-19 infection. Based on the information individual symptom was graded and it was clear that majority of responders to practitioners said that common symptoms is fever and cough which constituted to almost 96% and above.

12) How does the spread of COVID-19 occur is known to your Diabetic patient?
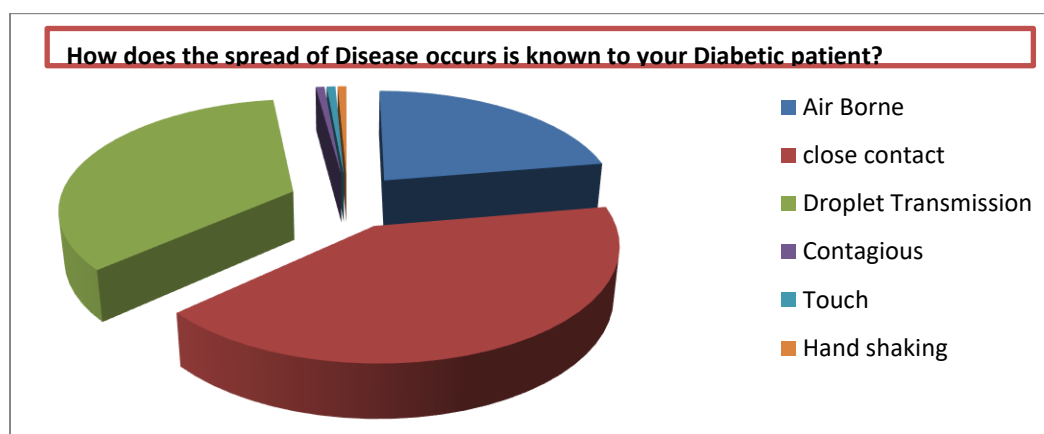

Air Borne	40.80%
Close Contact	75%
Droplet Transmission	63.20%
Contagious	1.30%
Touch	1.30%
Hand shaking	1.30%

This was a very interesting question which was given to healthcare practitioners, as there were huge different rumours going around in relation to COVID-19 and its mode of transmission. As the reply of healthcare practitioners, the majority of patients were aware that infection of covid-2 would spread via Droplet transmission

and Airborne and remaining though it could be due to other modes of transmission, which required some awareness.

13) Are your Diabetic patients avoiding Social / public gathering?
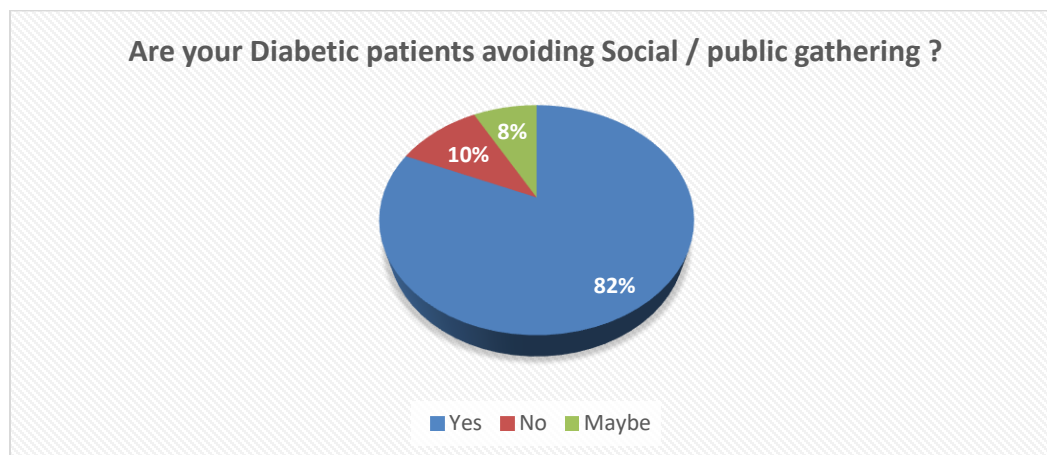
Yes	81.6
No	10.5
Maybe	7.90%

Majority of Diabetic patient were avoiding the social gathering which, but few patients who doubted the incidence and occurrence of disease were not convinced of this. Health care practitioners have given knowledge and information in this regard.

14) Who should wear a face mask is known to your Diabetic patients?
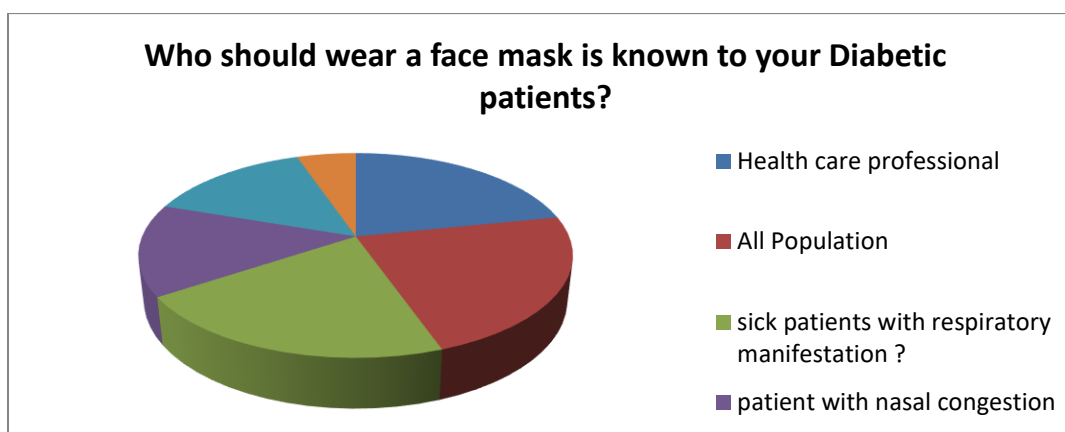
Health care professional	82.90%
All population	86.80%
Sick patients with respiratory manifestation?	80.30%
patient with nasal congestion	55.30%
patient with h/o of sneezing	55.30%
Others	20%

Page276

It is very clear by the answer of this question, that everyone was aware of wearing the mask by all including health care professional

15) How frequency your Diabetic patients were washing hands during this pandemic?
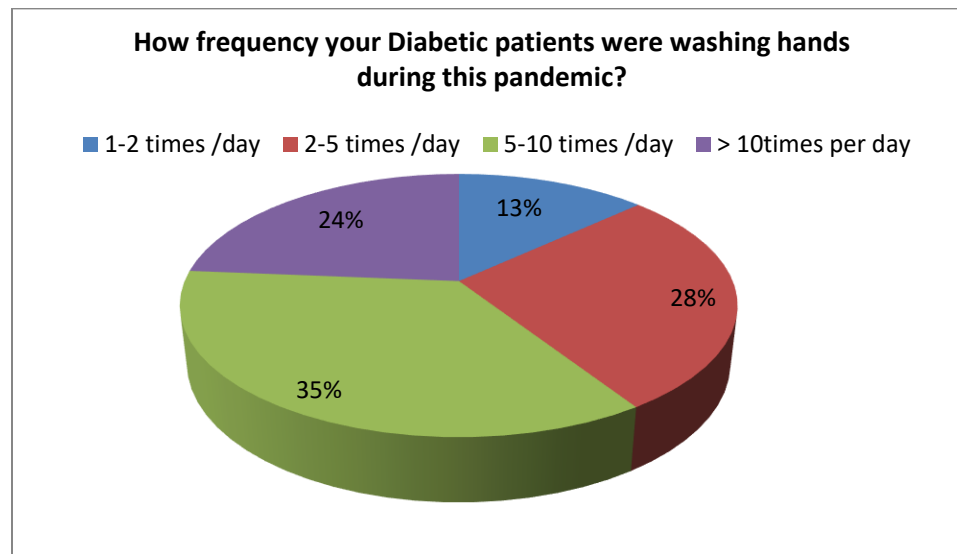
1-2 times /day	13.20%
2-5 times /day	27.60%
5-10 times /day	35.50%
> 10times per day	23.70%

The response given to this question is very important, it gives an idea that people during this period of lockdown and fear of infection, were washing the hand almost 5-10 times a day i.e. almost 35.50% people. In nutshell all diabetic patients were washing hand more often than regular times.

16) Do your patients believe there is treatment for this Disease?
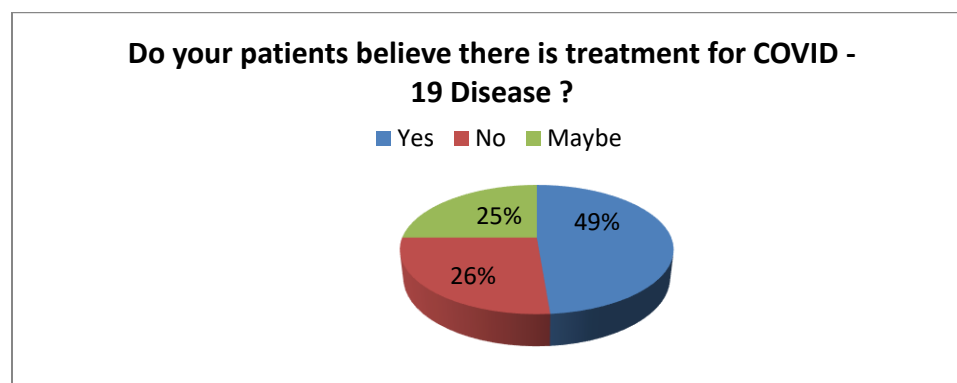
Yes	48.70%
No	26.30%
Maybe	25%

Page 277

This gives an idea that majority of patients believed that the treatment of covid-19 is doubtful, but almost 48.70% population believed in the treatment which was given.

17) Weight change during COVID-19 in your Diabetic Patients?

WEIGHT CHANGE DURING COVID-19 IN YOUR DIABETIC PATIENTS?

Don't Know 22%
Lost weight 27%
weight stable 19%
Gained some weight 32%
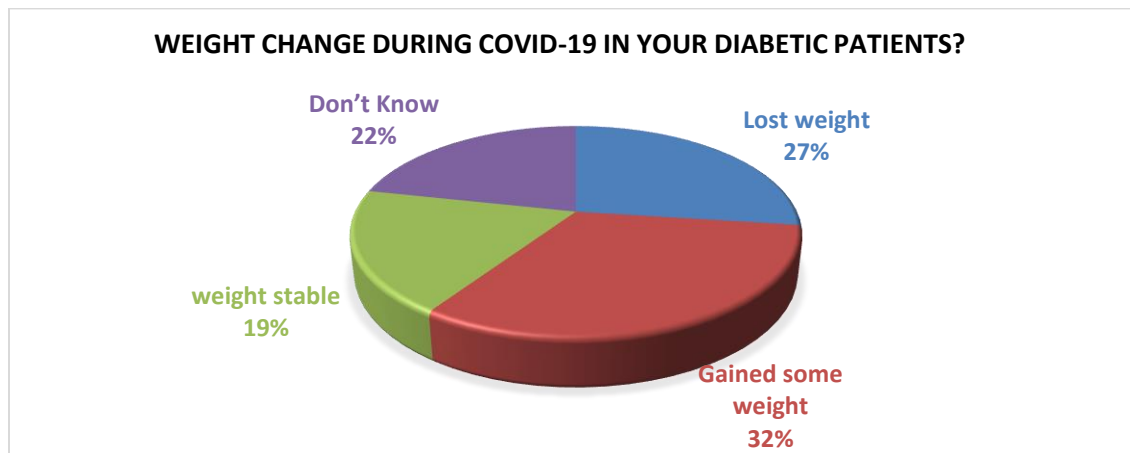
Lost weight	27%
Gained some weight	32.40%
weight stable	18.90%
Don't Know	21.60%

It gives a clear idea that 32.40% patients who followed up to the responding physician were having weight gain, and surprising there were almost 27% of patient have lost weight.

18) During COVID pandemic, probability of skipping one of the main meals (breakfast/lunch/dinner) change in your Diabetic Patients?

During COVID pandemic, probability of skipping one of the main meals (breakfast/lunch/dinner) changed in your Diabetic Patients?

No 51%
Yes 49%

■ Yes ■ No
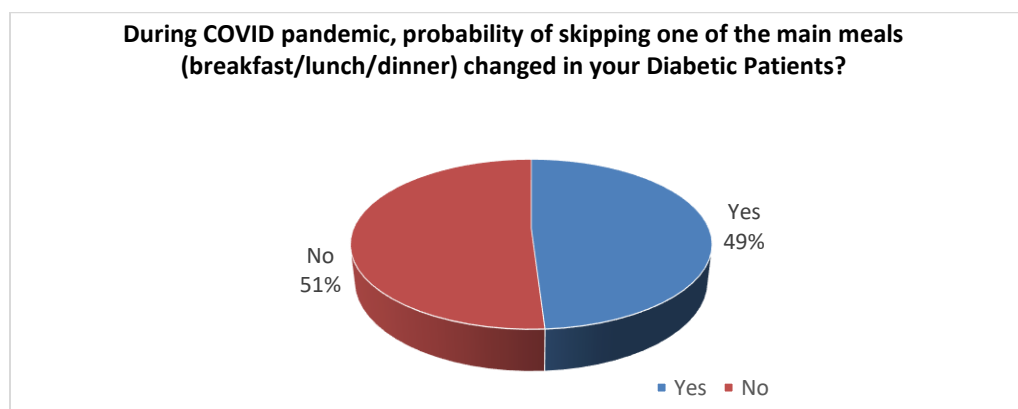
Yes	49%
No	51%

Based on the reply it is clear that 49% of patient had skipped one of the main meals.

19) During COVID pandemic, how has intake of a balanced diet (including healthy ingredients such as whole wheat, pulses, legumes, eggs, nuts, fruits and vegetables) changed?

During COVID pandemic, how has intake of a balanced diet (including healthy ingredients such as whole wheat, pulses, legumes, eggs, nuts, fruits and vegetables) changed?
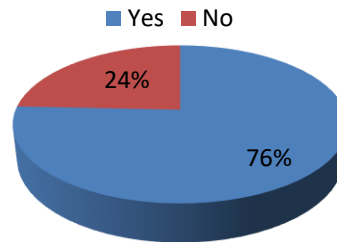
Yes	75.70%
No	24.30%

It is very clearly evident that majority of patient have favored and changed their diet to balanced diet. In feedback reply it was observed clearly that 75.70% of patients have changes to balanced diet to improve the health status. It was encouraged by all healthcare physicians to their patients that they have good balanced diet.

20) During COVID pandemic, interest in learning healthy eating tips from the media (newspaper articles/magazines blogs/videos/TV shows/text messages) changed in your Diabetic Patients?

During COVID pandemic, interest in learning healthy eating tips from the media (newspaper articles/magazines blogs/videos/TV shows/text messages) changed in your Diabetic Patients?
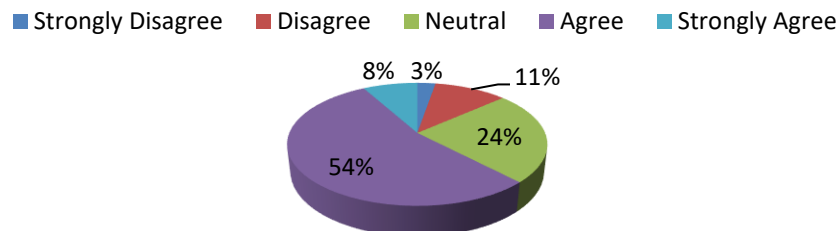
Strongly Disagree	2.70%
Disagree	10.80%
Neutral	24.30%
Agree	54.10%
Strongly Agree	8.10%

Majority of patients during this pandemic were keen on health and nutritious diet, they learned many newer tips and modalities of preparing good and nutritious food. Based on the reply of healthcare professional it was evident that 54.10% patient agreed with learning newer tips of healthy eating via various form of media.

21) During COVID pandemic, stress and anxiety levels changed in your Diabetic Patients?

During COVID pandemic, stress and anxiety levels changed in your Diabetic Patients?

■ Yes   ■ No   ■ Maybe

3%

97%
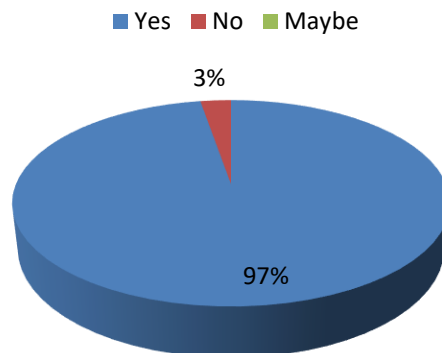
Yes	97.30%
No	2.70%
Maybe	0%

During pandemic, patient and healthcare providers both were in stress, based on the reply to this questionnaire it is clear that majority were in stress due to multiple factors.

22) During COVID pandemic, intake of nutrition supplements to boost immunity changed in your Diabetic Patients?

During COVID pandemic, intake of nutrition supplements to boost immunity changed in your Diabetic Patients ?

■ Yes   ■ No   ■ Maybe

8% 5%

87%
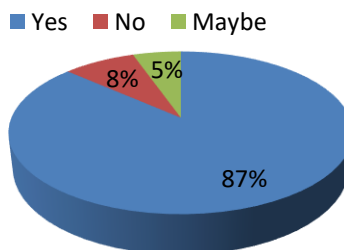
Yes	86.50%
No	8.10%
Maybe	5.40%

It is clear that almost maximum people were taking immunity booster and nutritional supplement to keep immunity on boost. Almost 86.50% of the people were on immunity boaster or self-taking immune booster supplements.

Discussion:

Questionnaires can assist in the quick assessment of lifestyle-related behaviour of people, diet, adherence to therapy; awareness of COVID-19, etc. thus provides a beneficial information in regards to Diabetic patients especially during pandemic situations.

Restrictions imposed due to COVID pandemic have led to serious disruptions in the daily routine of people. Lockdown at initial phases in the country led to the repercussions in the food supply and utilization thus placing the burden on usual food-related behaviour. Moreover, the closure of many places like gyms, fitness centres and strict restrictions imposed on

Page 280

visiting parks, playgrounds etc. to curb the spread of COVID has limited the access to many forms of physical activity which has led to a major impact on all set of life. This has led to confinement to a smaller area and which has impacted on sleep patterns, dietary habits also. There was a wider Deviation from a healthy lifestyle by many people which could not only increase the risk of development of T2DM but also worsen the state of patients already suffering from it. In view of the stated concerns, it is crucial to discover how significant is the impact of this pandemic and its associated restrictions on lifestyle-related behaviour of people including their eating habits, physical activity and sleep patterns. [11-18]

The lungs are the primary organ for SARS-CoV-2. However, it may also infect the gastrointestinal tract, central nervous systems, and cardiovascular system. SARS-CoV-2 binds to the host cells via linking to angiotensin-converting enzyme type 2 (ACE2), which is responsible for catalyzing the hydrolysis of angiotensin II (Ang II) into angiotensin (1–7) (a vasodilator). This enzyme is abundantly expressed on the alveolar type II cells of the pulmonary tissues but also exists in other types of the cells such as neurons and myocardial cells. Hence, blocking the ACE2 expression and activity may provide protective effects against COVID-19 infection. However, there is evidence suggesting that ACE2 inhibitors may increase the risk of COVID-19 complications and needs more research. [13-24]

The toxic impact of excess amount of glucose on various metabolic pathways, which is commonly seen with uncontrolled DM, is known as glucotoxicity. This pathologic process deranges the glucose homeostasis toward pathways such as polyol, hexosamine, or sorbitol pathways in hyperglycemic milieu. Also, it is commonly accompanied with upregulation of proteins involved in cellular injuries such as proapoptotic and death receptors, caspases and TLRs, and activation of molecular pathways such as c-Jun NH2-terminal kinase-1 (JNK), Bax/Bcl2, and PKR-like ER kinase (PERK) in various tissues. Glucotoxicity is also able to induce other pathophysiologic pathways as oxidative stress, inflammation, fibrosis, apoptosis, and necrosis in multiple tissues. Hence, it is now accepted that glucotoxicity has major indirect roles in hyperglycemia-dependent histological damages in various tissues including the lungs and respiratory tract. [16-25]

Although there is not enough direct evidence yet, we suggest that COVID-19 induces tissue injuries in the diabetic milieu is at least partly associated with glucotoxicity which can onset and promote other pathophysiologic mechanisms. In a recent study, Codo and co-workers reported that elevated levels of glucose favour COVID-19 infections via a hypoxia-inducible factor-1α- (HIF-1α-) dependent mechanism. They suggested that patients with diabetes are more prone to SARS-CoV2 due to toxic effects of hyperglycemia. Also, we suggest that higher severity of tissue injuries in the respiratory system which occurs in patients with DM infected with SARS-CoV2 are closely related to the toxic effects of hyperglycemia that induces various injurious pathways that damage the infected host cells. Therefore, maintaining the homeostatic state of the glucose in these patients could markedly prevent the severity of COVID-19 infection and reduce. [20-28]

The onset of COVID-19 is mainly manifested as fever, but some early patients may not have fever, with only chills and respiratory symptoms, which can occur together with mild dry cough, fatigue, poor breathing, diarrhoea etc. However, runny nose, sputum and other symptoms are rare. Patients may gradually develop dyspnoea. [29]

In severe cases, the disease can progress rapidly, causing ARDS (acute respiratory distress syndrome), septic shock, irreversible metabolic acidosis, and disorders in coagulation in matter of days. Some patients start out with mild symptoms without fever. The majority of patients have a good prognosis, while a few become critically and sometimes fatally ill. [29]

These are High Risk Patients who are prone to be infected by this virus are as follows– Age >60, Chronic Lung Disease, Chronic Kidney Disease, Diabetes, Hypertension, Cardiovascular Disease, On Biologics, Cancer, Post Organ transplants, HIV, On Immunosuppressant's.

If any patient is suspected the patient should be isolated and following workup to be done

- Covid-19 RT-PCR testing of nasopharyngeal swab,

- RT-PCR positive rates BAL 95%, sputum 72%, Nasal swabs 63%, oro-pharyngeal swab 32%.

- CBP, RBS, Creatinine, Na+, K+, CRP, LFT, CPK, CXR, troponin, d-dimer, LDH, aPTT, PT INR, CXR, ECG, CT Chest (if required), (HIV, HbsAg, HCV – if any suspicious history).

Based on severity various regimen of treatment has been given by various health care associations.

Prevention: Control the source of infection: When coughing or sneezing, the patient with acute respiratory diseases should cover their nose and mouth with the arm or other materials (handkerchiefs, paper towels,or masks) to reduce droplet transmission. After exposure to respiratory secretions, perform hand hygiene immediately, and wash hands frequently in daily life.

Wash hands frequently with plain or antimicrobial soap and rinse with running water. Be sure to dry hands with clean towels. Wash hands immediately after contact with respiratory secretions (for example after sneezing). Practice good respiratory hygiene/cough practices. Cover mouth and nose while coughing/sneezing with tissue or towel etc. and avoid touching eyes, nose or mouth afterwards before thoroughly washing hands. Strengthen overall health and immunity. Keep a balanced diet, get enough sleep and regular exercise, and also avoid overworking. Maintain good hygiene and proper ventilation. Open windows regularly throughout the day to let in fresh air. Avoid crowded places or contact with persons with respiratory infections. Seek a medical attention if fever, cough, sneezing, runny nose or other respiratory symptoms appear [30-31]

Personal precautions are as follows:

(1) Maintain a balanced diet, ensuring adequate nutrition, and maintaining oral health can help prevent against infection.

(2) Exercise regularly to boost immunity.

(3) Quit smoking, limit or avoid alcohol consumption, and stay in good spirits.

(4) Ensure indoor ventilation: natural ventilation and/or use of exhaust fans for better airflow.

(5) Get vaccinated if available.

If close contact, then follows these things:

Please follow the self-monitoring instructions and stay at home. Don't panic. Don't go to work. Don't go out too often. Perform daily checks of health condition and report the records to the authority, and follow up with your community doctors regularly. If fever, cough or other symptoms appear, please go to community health centers for further evaluation and treatment.

Conclusion:

This COVID -19 is seen as a major pandemic, it has caused higher mortality in high-risk individuals. Prompt empathic updates and regular awareness programmes by various means has helped all human beings apart from health care individual.

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette. The best way to prevent and slow down transmission is be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face. At this time, there are no specific vaccines or treatments for COVID-19. However, there are many on-going clinical trials evaluating potential treatments. This study based on questionnaires have shown that almost all the healthcare professional are trying to educate their patients and majority of patient are well versed with the covid and its impact in diabetes population also.

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