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AWARENESS LEVEL AND STRESS LEVEL DUE TO COVID-19 LOCKDOWN

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Abstract: In December 2019, A nCoV has been identified as a new strain that has not been previously identified in humans. On February 11, 2020, WHO renamed the COVID-19 from formerly named the 2019- nCoV. This phenomenon has resulted in a massive public reaction; the media has been reporting on a regular basis across borders to keep everyone informed about the pandemic situation. All these things are creating a lot of concern for people leading to increased levels of anxiety. Pandemics can result in increased levels of stress; Anxiety is a common rejoinder to any stressful situation. This study attempted to assess the awareness about prevention strategies against COVID-19 infection and stress level among adult Indian population during the Lockdown period of COVID-19 pandemic. An online survey was conducted using a semi-structured questionnaire. A total of 100 responses were received.

The responders had a moderate level of anxiety levels identified in the study. More than 95% of the people were aware about the prevention strategies and were reported to take preventive actions to prevent themselves from COVID-19 infection. There is a need to intensify the awareness and address the mental health issues of people during this COVID-19 pandemic, which might result in mental stress among the population of India.

I. INTRODUCTION

An outbreak of unusual respiratory condition was first reported in Wuhan, China, due to the infection caused by nCoV, now known as COVID-19. Further, on 11th February 2020, the W.H.O., announced COVID-19 as the name of this disease and the "COVID-19 virus" as the virus responsible for this disease. Based upon the transmission rate, the W.H.O has declared the outbreak of the COVID-19 as a global health emergency.

Coronaviruses are a family of positive single-stranded RNA virus, classified under Nidovirales order. These viruses are enveloped and are round and sometimes pleomorphic of approximately 80 to 120 nanometer in diameter. The virion contains an internal helical RNA-protein nucleocapsid surrounded by an envelope made up of lipids and viral glycoproteins. These glycoproteins are spike protein, membrane protein, and small membrane. The spike protein or "S" is a type I glycoprotein that forms the peplomers on the virion surface, giving the virus its corona or crown-like morphology in the electron microscope. The coronaviruses attach to the cell surfaces through the spike. Let us now discuss about membrane and small membrane protein. The membrane protein or "M" is highly hydrophobic and spans the membrane three times. On the other hand, the small membrane protein or "E" spans the membrane twice, and in some group two Coronaviruses, an additional protein hemagglutinin esterase is present whose function, is unknown. All Coronavirus genomes are arranged similarly with replicase locus encoded within 5-dash end and the structural proteins encoded in the 3-dash end of the genome. The viral replicase is a huge protein complex comprising of 16 viral sub-units and plays an essential role in the coronavirus replication and transcription at the cytoplasmic membrane.

COVID -19 can be transmitted between people who are in close contact with one another or (within about 6 feet). The transmission is through the respiratory droplets produced by the infected person when he or she sneezes or coughs. Possible inhalation of the droplets landing in the oral cavities or noses of people in close proximity. Furthermore, as per the statistical records on 20th February 2020, in Shenzhen City, among two thousand eight hundred and forty two identified close contacts, eighty-eight or 3 percent were found to be infected with COVID-19. Recent reports from the W.H.O, human-to-human transmission of the COVID-19 virus is mainly occurring in families, especially in China. For instance, among 344 clusters, involving 1308 cases out of 1836 cases reported, 78 to 85 percent of positive cases have occurred in families in Guangdong and Sichuan Provinces, respectively. As per the W.H.O, a person might be susceptible to COVID-19 if he or she touches a surface or object containing the virus and then touching their own mouth, nose, or face. However, this is not the main route of transmission.

According to the Centre for Disease Control or CDC, patients above the age of 50 are more vulnerable for the attack and persons with underlying diseases like Diabetes, Parkinson's disease and Cardiovascular diseases are at high risk. As per the World Health

Organization or W.H.O statistics, the median age of affected people is 51 years with the majority of cases that is 77.8 percent aged between 30–69 years. Statistical data also reveals that 51.1% of the affected populations are males. Clinical Features of COVID-19 include: Decreased white blood cells, Coughing and sneezing, Runny nose, Shortness of breath, Breathing difficulties, Sore throat, Fever, Fatigue, Pneumonia, Severe acute respiratory syndrome, Lungs inflammation and congestion, Cardiovascular damage, Diarrhea, Decreased Kidney functions and Kidney failure.

The prime suspects for COVID-19 include patients with fever and lower respiratory tract symptoms. The geographical distribution and recent contact with the suspected patients should also be taken into consideration. According to CDC, diagnosis should be based on clinical and epidemiological factors. The clinical criteria for confirming the diagnosis of the severity of Coronavirus is broadly categorized into Mild, Moderate, Severe and Critical.

Globally, preventive and control measures are being implemented rapidly. They were first initiated in Wuhan city and other critical areas of Hubei, and then in the currently affected countries. The governmental measures for prevention include three stages: First, Second and Third. First stage, is the early stage of the outbreak it focuses on: Preventing the export of cases from the affected areas, Control the source of infection, block the route of transmission and prevent the further spread of infection. Second stage, focuses on reducing the intensity of the epidemic. Third stage, focuses on reducing the clusters of cases, Controlling the epidemic and Balancing between prevention and control.

The state of lock-down in India, which contributes to the Indian economy, has led to the hesitant of services and products. This has led to a halt in the supply chains and thus, affected the Indian economy brutally . Transport has been affected globally. Transport business even at national levels has desisted due to lock-down in different countries. Most company employees are working from home, which has its financial drawback. Educational institutions have been close down. The postponement and uncertainty of examinations is also a stressor for young minds. Along with the economic impacts, the ever-increasing mortality and morbidity due to COVID-19 is the biggest impediment.

The awareness and anxiety in society are globally affecting every individual to variable extents. The awareness and attitudes of the public are expected to largely impact the degree of adherence to the personal protective measures and eventually the clinical outcome. Hence, it is important to study these domains in the Indian population. The mental health issues are other main health concerns, which are predicted to increase day by day during this pandemic. One of the main stress prophesy may be anxiety, angst deflagrated by something the individual understood as a threat to his or her integrity. Anxiety is an emotional experience combating the possibility of living future situations which may be nasty to the individual. Anxiety would be one of the intuitive components from the stress process's, which ends up occurring when the individual's response capacity is transcended.

II. RESEARCH METHODOLOGY

This is a cross-sectional, descriptive and correlational study of awareness and anxiety levels and of various social-demographic variables on 100 persons from India. An online semi-structured questionnaire was developed by using google forms, with a consent form affixed to it. The link of the questionnaire was sent through e-mails, WhatsApp, linkedin and other social media among the general population of India. On receiving and clicking the link the participants got auto directed to the information about the study and informed consent. Then a set of several questions appeared sequentially, which the participants were to answer.

It was an online study. Participants with access to the internet could participate in the study. Participants with age more than 18 years, able to understand English and willing to give informed consent were included. . We were able to collect data from across various states of India. The socio-demographic variables included age, gender, marital status, education, work status, domicile, area of residence and profession.

The online self-reported questionnaire developed by the investigators contained the sections related to awareness and anxiety due the lockdown period of COVID-19.

There were 4 multiple choice questions in the awareness section. Anxiety related to novel coronavirus infection was assessed through GAD Scale which had 7 items that were supposed to be rated on a 4-point Likert scale. Descriptive statistics have been used in the study to analyze the findings. Mean and standard deviation and proportions have been used to estimate the results of the study.

For data analysis, a MS-Excel spreadsheet was used for database elaboration, and afterwards the SPSS software version 22.0, for descriptive and inferential statistical analysis of data was also used. Parameters of mean and standard deviation were utilized for descriptive analysis, Pearson Correlation Test between awareness and anxiety trait, with test's descriptive level for $p < 0.05$.

III. RESULTS AND DISCUSSION

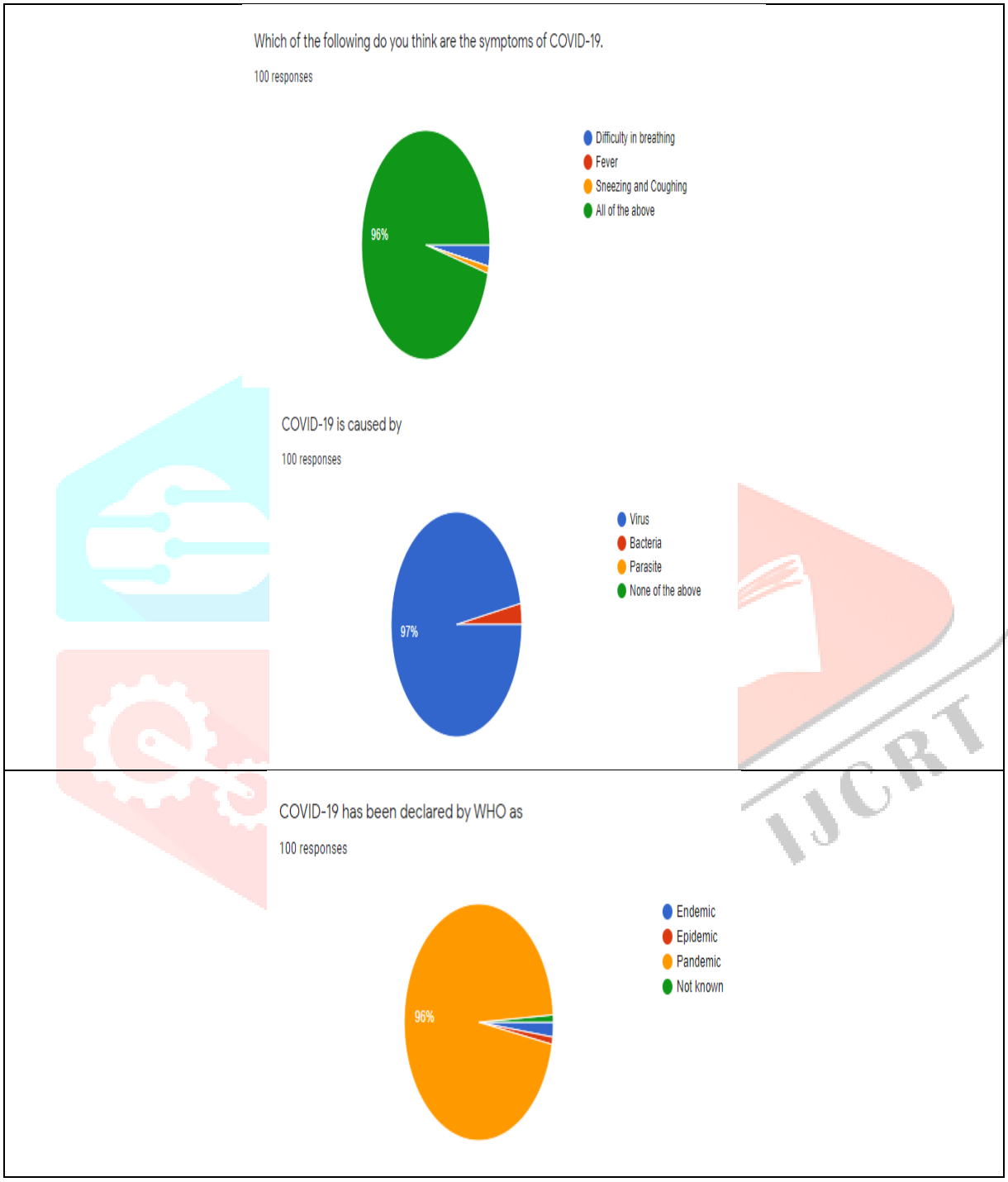
RESULTS:-

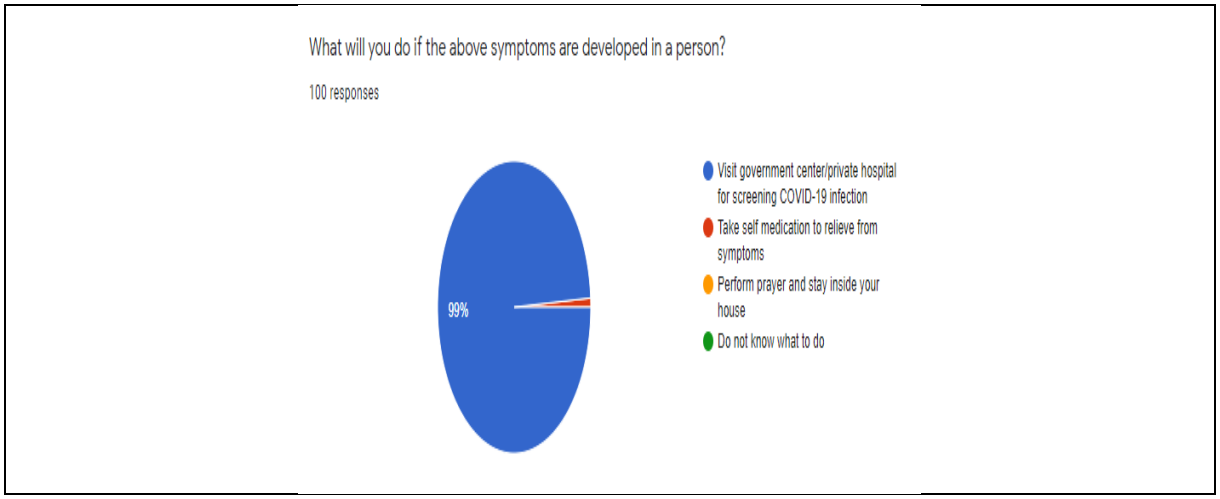
An online survey, related to awareness and anxiety experience during the lockdown period of corona pandemic, was conducted in the Indian population. A total of 100 responses were recorded. All the participants were above 18 years of age and Indian origin. The study included only those participants who understood English and had access to the internet. Hence, by default individuals with a higher level of education were included in the study. The lowest educational level in this study was observed to be standard 10th. The highest qualification of more than 95 % of the population was graduation and above. Approximately, half of the populations were healthcare professionals. The mean age of the participants was ranging from 18 to 40 years. Among the participants, 56 % were females and 44 % were males. More than 90 % of participants were from urban areas. The participants belong to 20 states or union territories of the country with maximum representation from Rajasthan, followed by Maharashtra,

Uttar Pradesh and Delhi. Approximately 92 % of the participants were staying with their family during this COVID-19 lockdown period.

Part I: awareness about COVID-19 pandemic –

A considerable number of responders were quite aware about the basic elements of the disease, as shown below. Out of the total participants, 96% answered that the COVID-19 is declared as pandemic by WHO and 97% are aware that COVID-19 is a virus. Around 96% were aware regarding the symptoms of COVID-19 which include difficulty in breathing, fever and sneezing or coughing. Most participants (99 %) were aware about visiting the government or private Hospital for screening of COVID-19 infection if the symptoms of COVID-19 are developed in them.





Part II: anxiety towards the COVID-19 pandemic –
Drawing from the data given in Table 1 , around 44% participants had mild anxiety during this lockdown period. In addition to mild anxiety, around 22% of participants had moderate level of anxiety and 34 % of participants had severe anxiety. Nearly half the participants approximately 56% felt panic by the lockdown period and also by the reports of COVID-19 pandemic shared on the electronic and print media over the past two weeks.

Table 1.Anxiety related to COVID-19 pandemic.

S.NO	Items	% of responses who feel anxious (N = 100)
1	Mild	**44%**
2	Moderate	**22%**
3	Severe	**34%**

Part III: Pearson Correlation Coefficient between awareness and Anxiety Index-
It was possible to perform the Pearson Correlation test amongst the variables. During the analysis of correlations, as mentioned in above table the correlations showed themselves negative, that is, lesser the awareness higher is the stress level among the participants which might result in mental illness in coming future.

DISCUSSION:-
People in the community faced several challenges during the lockdown period of COVID-19. Lack of awareness often forefront to an unconcerned anxiety, which may adversely affect the preparedness to meet these challenges. Impacts of these epidemics and pandemics are often intense, which may critically affect the mental well-being of a given population. The fear and anxiety related to epidemics and pandemics also control the behaviour of people in the community. Hence, this study attempted to evaluate the awareness and anxiety level of people in the society which might result in stress among the people in the society.

Most of the participants in our study were educated - either graduate or post-graduate and 70% of them were Health care worker like Doctor, Nurse, Emergency Technician, Pharmacist etc. The participants had a moderate level of awareness regarding the symptoms, mode of spread and yet sufficient awareness about the preventive measures. It was mainly due to the government and media spotlighting more on the preventive measures.

The study participants recorded recurrent use of sanitizers, hand wash, and masks during the past two week of Lockdown. This implies the increasing concern of participants towards personal hygienic measures to avoid COVID-19 infection. Awareness about COVID-19 are seen in their behaviour and attitude significantly as most of the participants (more than 90%) agreed with – social and physical distancing, wearing mask while going out, washing or sanitizing hands frequently, avoiding travel, self-quarantine and adequate hygienic measures. Stigma is basically associated with many health conditions. Adequate awareness may reduce the stigma and facilitate acceptance in the general population.

On the contrary, meeting the individual mental health needs in typical clinical settings that need face-to-face interviews for evaluation is challenging in the current scenario considering the risk of the spread of COVID-19 infection. In this situation considering online mental health consultation through tele-consultation might be more beneficial and it can deliver the consultation at the doorstep.
It is important to provide health education and create awareness during such pandemic situation for effective and efficient prevention of COVID-19 virus. Anxiety and stress among people in India are prevailing, as they are in direct and ceaseless contact with pain, suffering, anguish, fear, loss, and death, which may affect physical, emotional consequences, besides prying with the quality of care.
As for the correlation between awareness and anxiety, indeed there is a complexity of conceptualizing anxiety and stress, as these

are lived in a personal manner, determined by individual traits which move according to the degree of uncertainty, self-esteem, self-concept, and internal resources available for problems solving. However, the positive correlations between awareness and anxiety resulting in the present study accept the hypothesis that when there is increase in awareness level, anxiety levels are decreased.

IV. CONCLUSION

The 100 people sample was composed of more female participants (56%) as compared to male participants. Strong negative correlation was verified between awareness and anxiety index (r=-0.226) . These results reassure that when there is increase in awareness levels, anxiety levels also tend to decrease. Hence during the lockdown period of coronavirus pandemic, most of the educated people and health professionals are aware of this infection, possible preventive measures, the importance of social distancing and government initiatives were taken to limit the spread of infection. However, There is a need to intensify the awareness program and address the mental health issues of people during this COVID-19 pandemic.

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