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A Review Study on COVID 19 Using R With Big Data

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Abstract:- **This review study aimed to identify the psychological, physical activity, and educational effects of COVID-19 in India. The impact of the corona virus disease outbreak on many parts of our lives cannot be overstated. COVID-19 leds to several impacts on students, healthcare workers, and trainers. Many schools and colleges. In this study, aim of us to analyze data on the number of infected people in each Indian state.**
Keywords: - DA, PA, PrA, CoVs, COVID, Ebola, Zika, Nipah

1 INTRODUCTION

The highly infectious corona virus disease (COVID-19) was first detected in Wuhan, China in December 2019 and subsequently spread to 212 countries and territories around the world, infecting millions of people. In this paper, we aim to analyze data on the number of infected people in each Indian state (restricted to only those states with enough data for prediction) and predict the number of infections for that state in the next 30 days. We hope that such state wise predictions would help the state governments better channelize their limited health care resources.

The WHO declared the corona virus disease (COVID-19) as a global pandemic on March 11, 2020 [4]. The disease has spread across 212 countries and territories around the world, with a total of more than 3 million confirmed cases [5,6]. In India, the disease was first detected on January 30, 2020, in Kerala in a student who returned from Wuhan [7,8]. The total (cumulative) number of confirmed infected people is more than 37,000 to date (May 3, 2020) across India.

The role of the government as the main policy maker is to provide the right information and to make the right decisions about vaccines and vaccination implementation results of this study is described in themes covering various issues about COVID-19 vaccine, such as views on COVID-19 vaccine, fake news, vaccine implementation by government.

BRIEF HISTORY OF COVID19

Corona viruses are enveloped positive sense RNA viruses ranging from 60 nm to 140 nm in diameter with spike like projections on its surface giving it a crown like appearance under the electron microscope; hence the name corona virus [3]. Four corona viruses namely HKU1, NL63, COVID-19 is the disease caused by a new corona virus called SARS-CoV-2.

WHO first learned of this new virus on 31 December 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, People's Republic of China. 229E and OC43 have been in circulation in humans, and generally cause mild respiratory disease.[1]

2 LITRATURE REVIEW

Rina Tampake et al. 2023. "Aim of this study to determine the level of acceptance and uptake of the Covid-19 vaccine among pregnant women and the reasons for hesitation in vaccinating.[1]

Jonas Bocek et al. 2023. "In this they overarching importance of sleep was further emphasized during the pandemic of COVID-19. The subjects infected by COVID-19 frequently experience sleep disturbances; some are long-lasting problems and decrease the quality of life. [2]

Ercan Kurtipek et al. 2023 says that "extensive research has been conducted to identify the predictive criteria for COVID-19 disease. White blood cell, C-reactive protein, CRP/albumin ratio, neutrophil-to-lymphocyte ratio and ferrite are among the indicators of increased inflammatory response; hence, they could be used to determine the prognosis of COVID-19 cases. [3]

Anna Bokszczanin et al. 2023 "They examine the prevalence of depression among university students in Poland, the UK and India in the face of the second pandemic wave of COVID-19. The paper also examines the protective role of perceived social support, the hypothesis being that social support from friends would reduce depression. [5]

Pankaew Tantirattanakulchai er al. 2022 "They define the disability is globally recognized as a key cause of depression. Likewise, the COVID-19 pandemic has significantly increased the vulnerability of patients with low vision to health and health-related issues, especially mental health. This study aimed to examine the association between the impact of COVID-19 and depressive symptoms in patients with low vision and blindness.[4]

Khaled Al Zaman et al. 2023 "Khaled et al define the COVID-19 pandemic which started in November 2019 and since then has led to multiple lockdowns aimed towards controlling the pandemic, these lockdowns contributed to major changes in individuals' lifestyles including eating patterns and restriction of physical activity due to continues house confinement.**[6]**

Haneen Ali et al. 2023 "The purpose of this study is to build on previous burnout research by examining the

mediation effects of supervisor and community support and coping strategies on the relationship between sources of stress and burnout on feelings of compensation inadequacy, or the desire for more compensation. [8]

Banghui Qin et al 2023 "This study aimed to explore the levels of anxiety and depression in a sample of home-quarantined college students to identify the risk factors for psychological distress during the COVID-19 lockdown. [7]

Nurlailah Umar et al. 2023 "In conclusion, we agree that nurses have a variety of risk emotions, which can have a negative impact, and there are differences in perceptions and emotions of risk among nurses, therefore it is recommended to provide targeted psychological assistance and pay particular attention to the psychological status of younger female nurses. [9]

Reham Kaifi, et al. 2023 "In this study aimed to identify the psychological, physical activity, and educational effects of COVID-19 on radiological sciences students and interns at the three campuses of King Saud bin Abdulaziz University for Health Sciences (KSAU-HS) The impact of the corona virus disease (COVID-19) outbreak on many parts of our lives cannot be overstated. [11]

Yanqing Xing, et al. 2023 "The analysis of COVID-19 patients in China showed that severe patients were older, more likely to have related complications, lower lymphocyte count, liver and kidney function disorder, glucose and lipid metabolism disorders, myocardial injury, and abnormal coagulation function, suggesting the need for early anticoagulant therapy. In addition, NLR, MLR, PLR and HALP can be used as biomarkers to evaluate the severity and prognosis of COVID-19 patients".[12]

Khaled Al, et al. 2023 "In this study, the majority of participants have witnessed an increase in weight. UAE health authorities must provide guidance and support to the population via structured nutritional programs and lifestyle awareness campaigns. [13]

Raini Diah et al. 2023 "Purpose of this study aims to identify the motivations and barriers of health students as COVID-19 volunteers. Conclusion: Our findings highlight that eight motivational factors and seven barriers influence health students' involvement in COVID-19 volunteering. [14]

Dawit Alemu, et al. 2023 "told in this study shows that COVID-19 vaccine hesitancy among adolescents is very high. Being female, poor knowledge towards COVID-19 disease and the vaccine, an unfavorable attitude and social media were factors significantly associated with COVID-19 vaccine hesitancy.[15]

3 DATA PROBLEM AND CHALLENGES

However, considering variety of data sets in "Data" problems, it is still a big challenge for us to purpose efficient representation, access, and analysis of shapeless or semi-structured data in the further researches [12]. How can the data be preprocessed in order to improve the quality of data and analysis results before we begin data analysis [1] [2].

As the sizes of dataset are often very large, sometimes several gigabytes or more, and their origin from varied sources, current real-world databases are pitilessly susceptible to inconsistent, incomplete, and noisy data. Therefore, a number of data preprocessing techniques, including data cleaning [11], data integration, data transformation and date reduction, can be applied to remove noise and correct irregularities. Different challenges arise in each sub-process when it comes to data-driven applications.

4 COVID 19

In the past decades, several new diseases have emerged in new geographical areas, with pathogens including Ebola, Zika, Nipah, and coronaviruses (CoVs). Recently, a new type of viral infection has emerged in Wuhan City, China, and initial genomic sequencing data of this virus does not match with previously sequenced CoVs, suggesting a novel CoV strain (2019-nCoV), which has now been termed as severe acute respiratory syndrome CoV-2 (SARS-CoV-2).

Although Coronavirus disease 2019 (COVID-19) is suspected to originate from an animal host (zoonotic origin) followed by human-to-human transmission, the possibility of other routes such as food-borne transmission should not be ruled out. Coronaviruses are large group of viruses that cause illness in humans and animals. Rarely, animal coronaviruses can evolve and infect people and then spread between people such as has been seen with MERS and SARS.

The outbreak of Novel coronavirus disease (COVID-19) was initially noticed in a seafood market in Wuhan city in Hubei Province of China in mid-December, 2019, has now spread to 214 countries/territories/areas worldwide. WHO (under International Health Regulations) has declared this outbreak as a "Public Health Emergency of International Concern" (PHEIC) on 30thJanuary 2020. WHO subsequently declared COVID-19 a pandemic on 11th March, 2020.Members of the family Corona virus cause a broad spectrum of animal and human diseases. Uniquely, replication of the RNA genome proceeds through the generation of a nested set of viral mRNA molecules.[2]

Human coronavirus (HCoV) infection causes respiratory diseases with mild to severe outcomes. In the last 15 years, we have witnessed the emergence of two zoonotic, highly pathogenic HCoVs: severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV). Replication of HCoV is regulated by a diversity of host factors and induces drastic alterations in cellular structure and physiology. In this review all (as we possible) information about Corona

viruses are given. KEYWORDS: Corona, respiratory, viruses, Hcov, host, RNA.[1,2]

5 SCOPE

The guidelines are in addition to the guidelines on appropriate management of suspect/confirmed case of COVID-19 issued by MoHFW on 7th April, 2020. As per existing guidelines, during the containment phase the patients should be clinically assigned as very mild/mild, moderate or severe and accordingly admitted to (i) COVID Care Center, (ii) Dedicated COVID Health Center or (iii) Dedicated COVID Hospital respectively. Guidelines for home isolation of very mild/pre-symptomatic patients were issued on 27th April 2020. The present guidelines are in supersession of the guidelines issued on 27th April 2020.

6 WHO

World health organizationis providing guidance on early investigations, which are critical in an outbreak of a new virus. The data collected from the protocols can be used to refine recommendations for surveillance and case definitions, to characterize the key epidemiological transmission features of COVID-19, help understand spread, severity, spectrum of disease, impact on the community and to inform operational models for implementation of countermeasures such as case isolation, contact tracing and isolation.

Several protocols are available here. One such protocol is for the investigation of early COVID-19 cases and contacts (the "First Few X (FFX) Cases and contact investigation protocol for 2019-novel coronavirus (2019-nCoV) infection"). The protocol is designed to gain an early understanding of the key clinical, epidemiological and virological characteristics of the first cases of COVID-19 infection detected in any individual country, to inform the development and updating of public health guidance to manage cases and reduce the potential spread and impact of infection.[17]

Protect yourself and others from COVID-19. There is currently no vaccine to protect against COVID-19. The best way to protect yourself is to avoid being exposed to the virus that causes COVID-19. Stay home as much as possible and avoid close contact with others. Wear a cloth face covering that covers your nose and mouth in public settings. Clean and disinfect frequently touched surfaces. Wash your hands often with soap and water for at least 20 seconds, or use an alcoholbased hand sanitizer that contains at least 60% alcohol.[13]

Practice social distancing Buy groceries and medicine, go to the doctor, and complete banking activities online when possible. If you must go in person, stay at least 6 feet away from others and disinfect items you must touch. Get deliveries and takeout, and limit in-person contact as much as possible. Prevent the spread of COVID-19 if you are sick Stay home if you are sick, except to get medical care. [10]

Avoid public transportation, ride-sharing, or taxis. Separate yourself from other people and pets in your home. There is no specific treatment for COVID-19, but you can seek medical care to help relieve your symptoms. If you need medical attention, call ahead. Know your risk for severe illness Everyone is at risk of getting COVID-19. Older adults and people of any age who have serious underlying medical conditions may be at higher risk for more severe illness.

7 RECOMMENDED TEST

Real time or Conventional RT-PCR test is recommended for diagnosis. SARS-CoV-2 antibody tests are not recommended for diagnosis of current infection with COVID-19. Dual infections with other respiratory infections (viral, bacterial and fungal) have been found in COVID-19 patients.

Depending on local epidemiology and clinical symptoms, test for other potential etiologies (e.g. Influenza, other respiratory viruses, malaria, dengue fever, typhoid fever) as appropriate. For COVID-19 patients with severe disease, also collect blood cultures, ideally prior to initiation of antimicrobial therapy.

8 MANAGEMENT OF COVID-19

In the containment phase, patients with suspected or confirmed mild COVID-19 are being isolated to break the chain of transmission. Patients with mild disease may present to primary care/outpatient department, or detected during community outreach activities, such as home visits or by telemedicine. Mild cases can be managed at Covid Care Centre, First Referral Units (FRUs), Community Health Centre (CHC), sub-district and district hospitals or at home subject to conditions stipulated in the home isolation guidelines available at Detailed clinical history is taken including that of co-morbidities. Patient is followed up daily for temperature, vitals and Oxygen saturation (SpO2).

9 CONCLUSION

The impact of the corona virus disease COVID19 outbreak on many parts of our lives cannot be overstated. This review study aimed to identify the psychological, physical activity, and educational effects of COVID19. With the corona virus pandemic 2019, educational training institutions and health professions faced many challenges worldwide. Although many nations have embraced extreme measures to prevent the spread of the infection, such as social distancing, the consequences of COVID19 led to several impacts on students, healthcare workers, and trainers. Many schools and colleges throughout the globe have been closed and stopped their instructional activities because of the pandemic, which has affected students' mental health.

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