SUMMER TRAINING REPORT

ASSESSMENT OF KNOWLEDGE AMONG ELDERLY ABOUT COVID 19

By

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MBA (HOSPITAL AND HEALTH MANAGEMENT)
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ACKNOWLEDGMENT

I would like to take this opportunity to show my gratitude to everyone who supported me on my journey. I am grateful to my Institute, Indian Institute of Health Management Research for providing me with the foundation of knowledge and skills. I would like to extend my gratitude towards my Guide, Dr. Seema Mehta for her constant guidance throughout this journey and for pushing me to do better. I will try my best to use this knowledge and skills for the goodwill of the society and people. I will continue to work on my future endeavours with the same zeal and hard work.

Sincerely,
Diksha Pawar.

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ABBREVIATIONS:

1.CDC - Centers for Disease control and Prevention

2.ISSL – Less than senior secondary level

3.SSL – Senior secondary level

4.GRAD – Graduate

5. PG – Postgraduate

6. SARS – Severe acute respiratory syndrome

7.MERS – Middle east Respiratory syndrome

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1.INTRODUCTION:

The world is crippled with the COVID 19 outbreak, According to World Health Organization, globally as of May 2020, there have been 5,267419 confirmed cases including 341,155 deaths. The numbers are only rising day by day. In India there have been 131,868 confirmed cases with 3867 deaths so far. According to the Union Health Ministry of India, half of the country's COVID 19 deaths have occurred amongst patients of 60 years or older. The Ministry said 0.5% of COVID 19 deaths have occurred in patients below 15 years,2.5 % in 15-30 years of age group and 11.4% in 30-45 years of age group, 35.1% in 45-60 years of age group and 50.5% in 60 years or older and around 73% have occurred amongst patients with underlying health disorders.

The portion of elderly people in India is gauged to increase to about 20% in 2050, said the UN. In the world population report by UNFPA, India's population in 2019 was at 1.36 billion growing from 942.2 million in 1994, of which 6% of India's population was 65 years and above. India showed improvement in life expectancy at birth, which was 47 years in 1969 growing to 69 years in 2019. According to population census 2011 there are more than 104 million of elderly persons in India of which 53 million are females and 51 million are males. With the demographic achievements over time, share of elderly people in our population is going to be 158.7 million by 2025 and is expected to excel population of below 14 years in 2050, therefore requiring firm and strong policy paradigm involving fair share for elderly care especially in Healthcare considering their deteriorating health with aging.

According to National sample survey organization 2006, analysis of morbidity patterns by age clearly indicates the elderly bear greater burden of ailments. The elders are suffering from underlying diseases mostly Cardiovascular, Circulatory, Cancers, Infections.

When we look at the numbers of physical and mental disability in elderly, 3.7 million suffer dementia, 40 million suffer from poor vision, 1.6 million annual stroke cases, 1 in 3 suffer from arthritis, 1 in 3 has hypertension, 1 in 5 has diabetes, 1 in 5 has auditory problems, 1 in 4 suffer from depression, 1 in 10 falls and survives a fracture, 1 in 3 bowel disorder and

cancer is 10 times more common and in addition to this, the elderly suffer from social stigma and loneliness, abuse, lack of finances and poor access to healthcare needs. Though Indian government has made efforts to include geriatric care in health plans, but it is clearly not enough when compared to the burden of morbidity and mortality among the elderly, making the older people in our country more susceptible to COVID 19 than anyone else.

In such times of need, it is extremely necessary to take care of our elderly, from individual level to community, all efforts are required. A comprehensive patient care that includes evaluation of physical, mental, social and lifestyle issues and then making and executing an evidence-based health care plan that addresses their needs. And to evaluate this, the elderly themselves should be knowledgeable of their health care needs. Such knowledge can be generated only by first assessing their pre hand knowledge regarding the disease and then evaluating it to further take steps to enhance it if found insufficient. Therefore, making them better prepared for COVID 19 pandemic.

2.LITERATURE REVIEW

Our world has lived through pandemics and epidemics for centuries, According to WHO, some of the many pandemics and epidemics were of Chikungunya, Cholera, Ebola virus, Influenza, Lassa fever, Meningitis, Mers, Nipah virus, Plague, SARS, Smallpox, Yellow fever, Zika virus etc. Due to their ailing mental and physical conditions, the elderly is naturally predisposed to such pandemics and epidemics. According to the Virology data from influenza surveillance network of 10 labs led by National institute of Virology, Pune, covering 8 states from 2010-2013, death data was obtained for that period where estimated annual influenza associated respiratory mortality rate were highest for 65 years and above (9.2-93.0 deaths/100000) and influenza associated circulatory deaths were also higher among those of 65 years and above(7.9-135.8/100000) as compared to those aged 65 years and below. Talking about SARS, WHO estimated overall case fatality of SARS in 2003 and collected data from 4 countries of which case records from Hong Kong calculated a case fatality ratio as high as 55% for patients aged 60 and above again makes them at risk age group. According to a case study by CDC to see trends in causes of death in elderly in USA, where Influenza and Pneumonia was ranked 5^{th} making 3.2% of all deaths.

Other Top 5 causes of elderly deaths are:

1.Heart diseases

2.Cancer

3.Stroke

4.Chronic lower Respiratory diseases

5. Diabetes.

According to a situation Analysis of the elderly in India in 2011 by Ministry of statistics and programme implementation, there is a sharp rise in Age specific death rate with 20/1000 deaths for people in age group 60-64, 80/1000 in people of age group 75-79 years and 200/1000 in 85 years and above of age whereas in America, person aged 75 to 79 years had mortality rate of 42 deaths/100000 and people of age 95 and above had mortality rate of 590 deaths/100000.In one of the research paper where mortality rates among people of age 65 years and above was compared between japan and china, mortality rate in china was higher compared to japan.

Therefore, the burden of mortality and morbidity is high among the elderly and availability of infrastructure and resources are low, hence a carefully cultivated consideration of two social dimension of epidemics is required;

1. Individual level
2. Community level

Individual level dimensions include perceived severity of disease and perceived susceptibility which varies according to the age of the elderly, sex, and underlying comorbidities and strength of their immune system but the community level dimension can be managed effectively and efficiently by generating adequate awareness and knowledge of the disease, the government's actions and decision making and enhancing trust in health care providers etc. The present study was done to elucidate the knowledge among the elderly concerning COVID 19.

3.OBJECTIVES:

1.To study the knowledge, awareness and attitude towards COVID 19 among elderly people.

2. To study the association of age and awareness of COVID 19 among elderly people.

4.RESEARCH METHODOLOGY:

The study population was people aged 65 years and above. A sample size of 50 was taken using purposive sampling (non-probability sampling). The research design adapted was Cross-sectional design and a structured Questionnaire was used. The questionnaire was divided into two sections, one section dealt with the demographic data and second section dealt with the knowledge of the elderly towards COVID 19.

Table1.1 shows the variables used to assess the association of knowledge about COVID19

AGE
GENDER
WORKING STATUS
LEVEL OF EDUCATION
WAY OF LIVING

5.DATA ANALYSIS:

Data is analyzed using Excel and Chi square test is done to assess the association of knowledge towards COVID 19 and variables stated in table 1.1. The p-value is considered significant at ≤ 0.05.

Table 1.2 shows Characteristics of the sample size(N=50)

Age	Sample size (%)
65-74 years	20(40%)
75-84 years	16(32%)
85 and above	14(28%)
Gender	
Male	24(48%)
female	26(52%)
Education level	
Less than senior secondary level	20(40%)
Senior secondary level	11(22%)
Graduate	10(20%)
Postgraduate	9(18%)
Working status	
Currently working	7(14%)
Unemployed	17(34%)
retired	26(52%)
Living status	
Alone	7(14%)
With family	36(72%)
Nursing care facility	7(14%)

Total 50 elderly people were questioned out of which the dominant age group was between 65-74 years (40%) followed by those in 75-84 years (32%) and then 85 and above (28%), 48% of the sample were males and 52% were females. 40% of elderly received less than senior secondary level education, 22% received senior secondary level education, 20% received Graduate level education and 18% received Postgraduate level education. Majority of the people were retired (52%) followed by 34% who were unemployed and 14% were currently working. about 72% lived with their families, 14% lived in a nursing care facility and other 14% lived alone.

Figure1 shows how serious do elderly think COVID 19 threat is.64% elderly said the COVID19 threat is very high which means that it is a hazardous condition and may cause catastrophic damage and 18 % said it to be moderate which means it may cause minor damage, remaining 18 % thought it to be high risk which means it may cause significant damage.

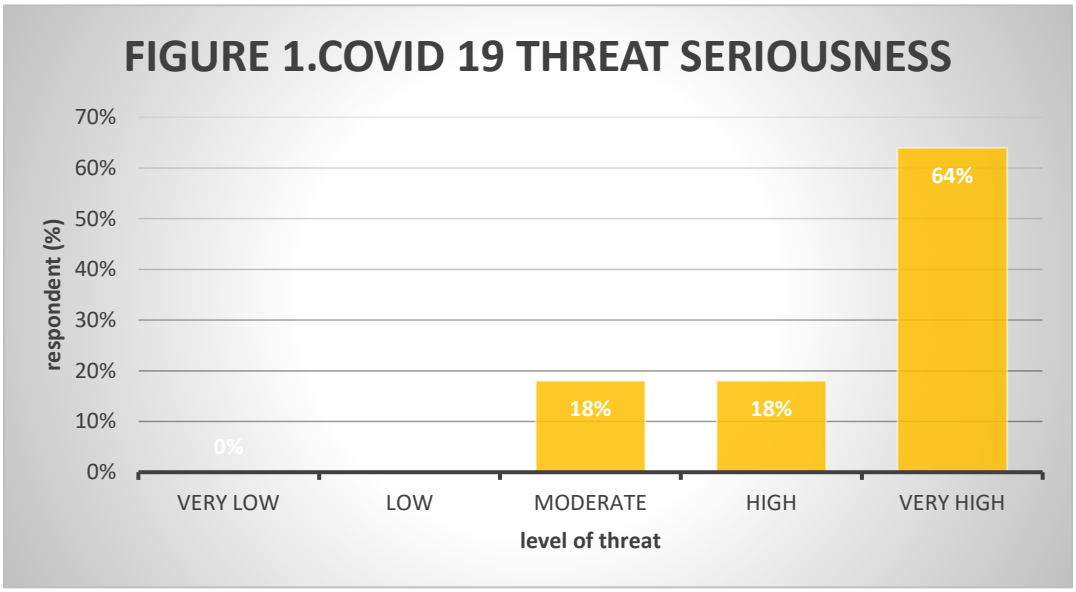


Figure 2 shows 34% elderly was not aware of Arogya setu application, 64% were aware of it and 4 % were not sure if they heard about it or not.

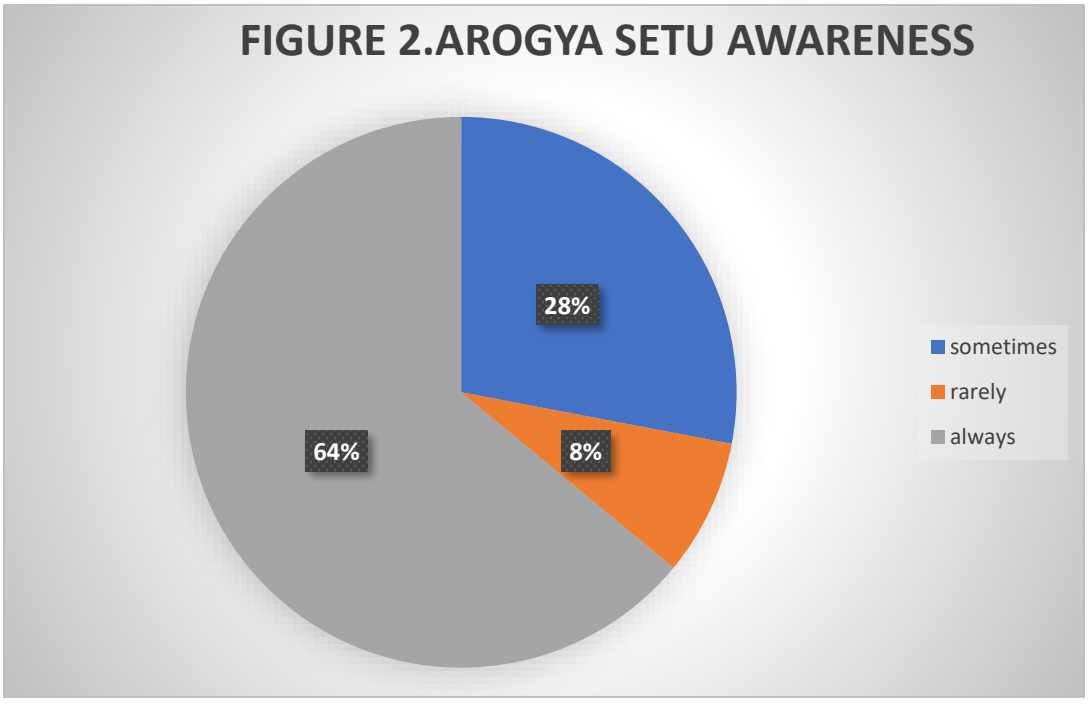


Figure 3 shows methods of prevention followed by elderly during COVID 19 pandemic. About 98% of elderly washed their hands with soap and water followed by 84% who covered their mouths on sneezing and only 66% used alcohol-based sanitizer.

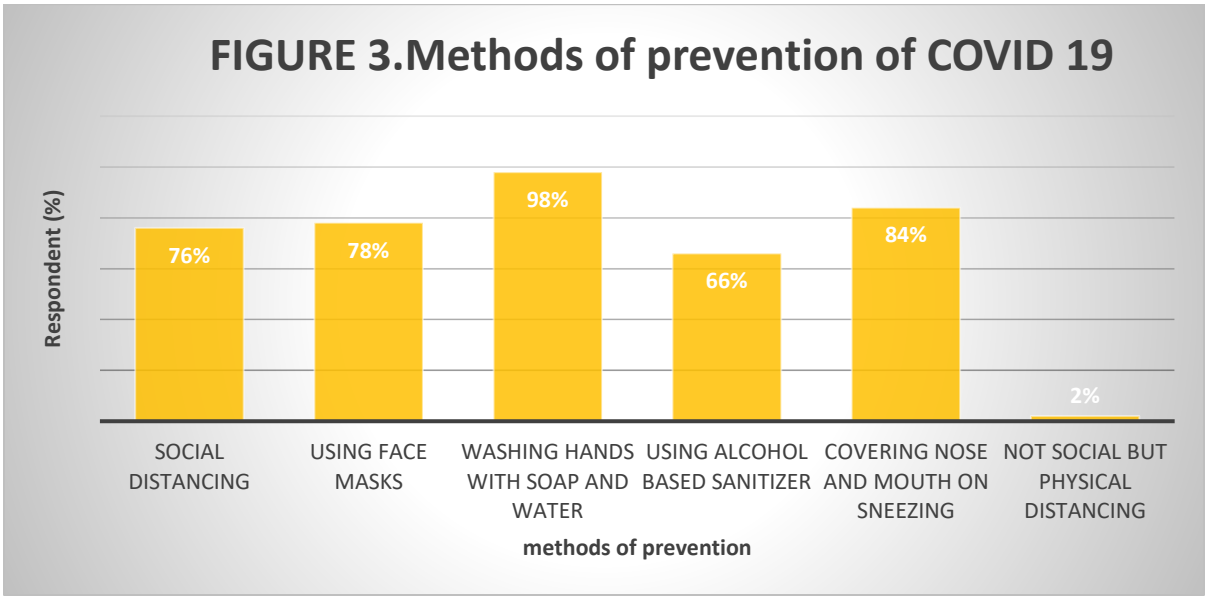


Figure 4 shows how often do the elderly wash their hands. About 28% said they washed their hands sometimes whereas 64% said they washed their hands always, out of which 8% said they rarely washed their hands.

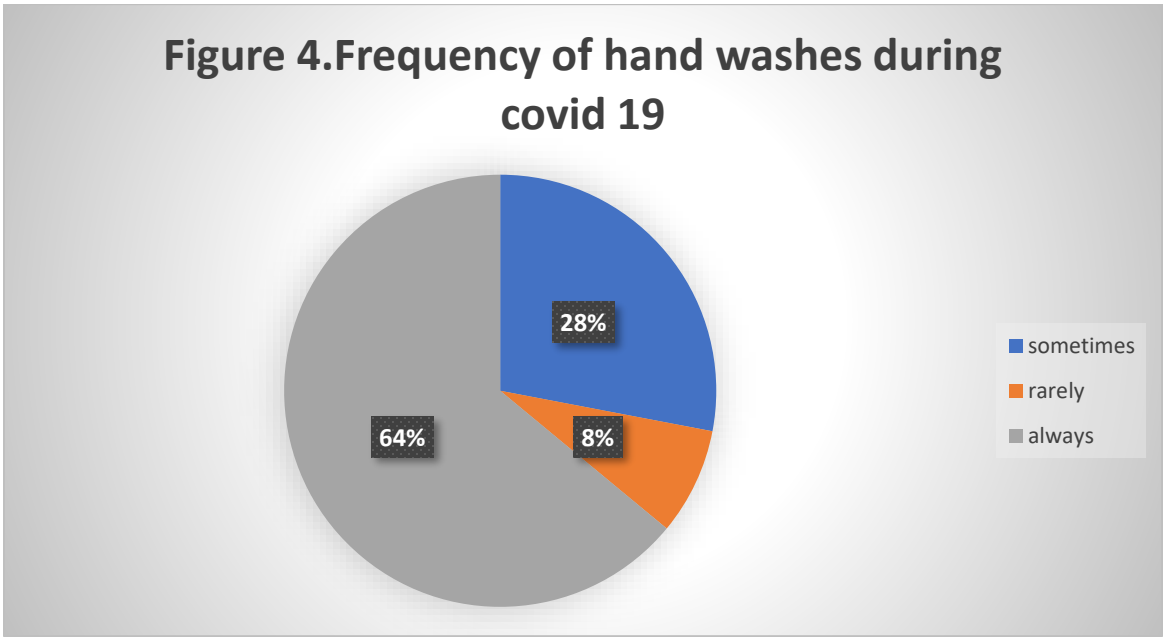
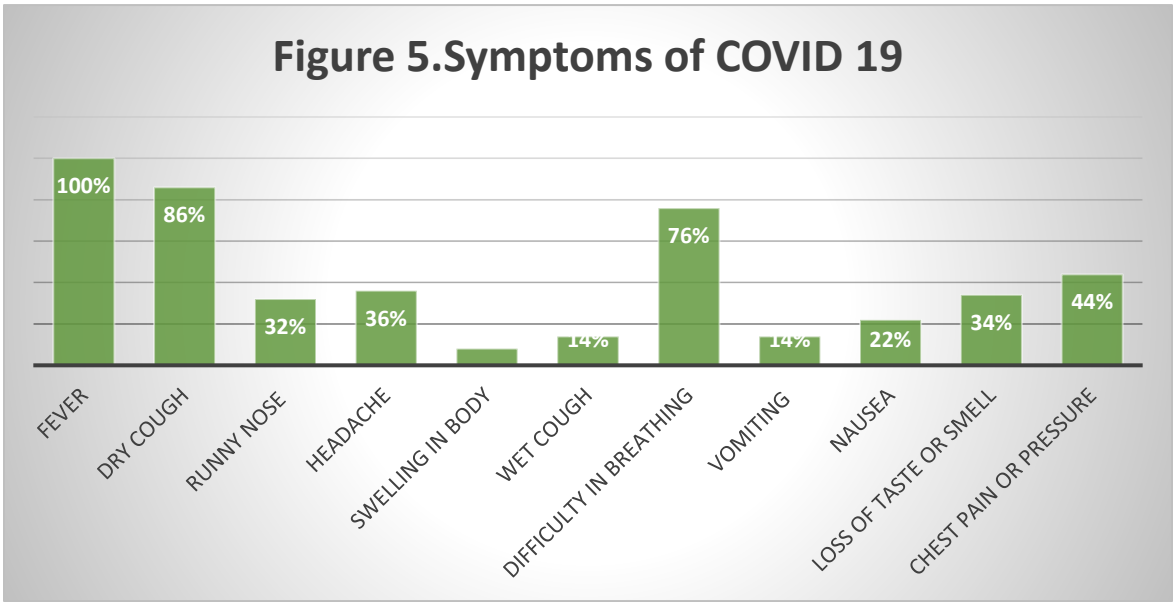


Figure 5 shows the symptoms of COVID 19 marked by elderly.100% of the elderly said the symptom to be fever followed by Dry cough and difficulty in breathing.14% marked wet cough incorrectly as a symptom of covid 19.



5.1 FINDINGS:

The study included 50 elderly persons whose age was 65 years and above. The elderly in the age group 65 to 74 years comprised of 20% of the sample size. Of total 50 people, 48% were males and 52% were females.40% of the people received less than senior secondary level education. 52% of them were retired and 14% were currently working. Majority of the people were living with their family (72%) and 14% lived alone and other 14% lived in a nursing care home. 68% of the people thought COVID 19 is a Recoverable disease and 78% thought social distancing will help them keep safe.74% of elderly people thought that travelling is not safe during this pandemic. Out of 50 people, 52% washed their hands for just 10-15 seconds and 30% washed their hands for more than 20 seconds. 60.6% used sanitizer with 60% and more alcohol. 50% of the people were not aware of health care services such as teleconsultation and 32% were not aware of Arogya setu application.

After applying Chi square test to assess the association of knowledge with Age, gender, working status, level of education and living status, it was found that few factors were significantly associated with elderly knowledge towards COVID 19 including age (p-value 0.02) and way of living (p-value 0.001) as shown in Table 2.

Table 2 shows association between knowledge and socio demographic variables. P-value is calculated using Chi-square test.

TABLE 2 Showing P-value calculated using chi square test

VARIABLES	KNOWLEDGE			P value
AGE	Don't know	No	Yes	
65-74 years	0	0	20	
75-84 years	6	0	10	0.02
85 and above	4	1	9	
LIVING STATUS	Don't know	No	Yes	
Alone	0	7	0	
With family	2	7	27	0.001
Nursing care facility	0	3	4	
GENDER	Don't know	No	Yes	
Male	10	0	14	0.15
Female	6	0	20	
WORKING STATUS	Don't know	No	Yes	
Currently working	1	0	6	
Unemployed	7	0	10	0.43
Retired	8	0	18	
LEVEL OF EDUCATION	Don't Know	No	Yes	
ISSL	0	8	2	
SSL	7	11	2	0.06
GRAD	0	8	1	
PG	1	10	0	

6.CONCLUSION:

1. After applying Chi square test, the p-value calculated in association with knowledge and age was 0.02 and with living status was 0.001 (p-value< 0.05) suggesting the knowledge of COVID 19 in elderly might be associated with their age and living status.
2. There was no association of knowledge with gender, working status and education level of the elderly, however more data is needed to be collected and analyzed.

7.RECOMMENDATIONS:

1. The elderly has good enough knowledge towards the COVID 19 pandemic, but measures are required to be taken to improve and enhance their knowledge.

2. The knowledge and awareness among those above 75 years needs to be enhanced due to diminishing heath and cognitive disabilities.

3. Those living alone were not as much knowledgeable as compared to those living in family and nursing care facility, therefore appropriate measures are to be taken to make them more aware of COVID.

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ANNEXURE:

Questionnaire

Demographic data: PART 1

1.Your Age

1. 65 - 74 years
2. 75 - 84 years
3. 85 and above

2.Gender

1.Male
2.Female

3.What is your education level?

1.Less than senior secondary level
2.senior secondary level
3.graduate
4.postgraduate

4.what is your working status?

1.currently Working
2.unemployed

3.retired

5.how do you live?

1.alone
2.with family
3.nursing care facility
4.others

PART 2: Knowledge

6.How serious do you think coronavirus threat is?

1. Very low
2. Low
3. Moderate
4. High
5. Very high

7.Do you think it is a Recoverable disease?

1.Yes

2. no

3. don’t know

8.Do you think social distancing will keep you safe from getting sick due to COVID 19?

1.Yes

2. no

3. don’t know

9.Mark all the symptoms of coronavirus correctly?

1. 1.fever
2. 2.dry cough
3. runny nose
4. headache
5. Swelling in body

6. Wet cough
7. difficult breathing
8. vomiting
9. nausea
10. loss of taste or smell
11. chest pain or pressure

10.Do you think it is okay to travel during this pandemic?

1.Yes

2. no

3. don't know

11.Mark all the methods of prevention of COVID flu you follow?

1. social distancing
2. using face masks
3. washing hands with soap and water
4. using alcohol-based sanitizer
5. covering mouth and nose on sneezing

12.How often do you wash your hands?

1.sometimes
2.rarely
3.always
4.never

13.How much time does it take to wash your hands?

1.less than 10 seconds
2.10 to 15 seconds
3.more than 20 seconds

14.If you use sanitizer, what is the alcohol content?

1.Less than 60%
2.60% and more
3.no alcohol content

15. Do you suffer from any other medical conditions or infections currently?

1.Yes

2. no

3. don’t know

16. If yes, do you go to hospitals for check-ups or follow up currently?

1.Yes

2. no

17.Are you aware of the health care services such as Teleconsultation?

1.Yes

2. no

3. don’t know

18. Are you aware of the Arogya setu application?

1.Yes

2. no

3. don’t know.

ONLINE COURSE REPORT

USING CLINICAL DATA FOR BETTER HEALTHCARE

BY

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MBA (HOSPITAL AND HEALTH MANAGEMENT)

2019- 21

1.NAME OF THE COURSE: Using Clinical Data for better Healthcare.

2.COURSE DESCRIPTION:
This course covers the use of ongoing digital health surroundings, environment, and correctly utilizing and identifying many uses in collecting data from sources using the digital heath technologies, emerging use of health workforce in digital world and the importance of data analytics in making appropriate decisions in healthcare.

3.OBJECTIVES OF THE COURSE:

1. The objective of the course is to explore how digital data affects the healthcare and role of health informatics.
2. Turning raw data into actionable information.
3. Identifying the importance of data life cycle.
4. Identifying and understanding the key statistical concepts for interpreting data.
5. Understanding the many stakeholders, positions, and privileges linked with the use of digital health technologies and systems.
6. explore advantages of challenges of contemporary digital health systems and data use.

4.COURSE CONTENTS:

Module 1:

1.five ways digital data is changing health care (video)

2.data driven care (video and informatics)

3.do healthcare professionals really need to know data analytics(video)

4.the potential of health data to drive healthcare transformations: Digital health CRC(Video).

Module 2:

1. Meaning of health data and health data classification (video)
2. data life cycle(video)
3. what is Quality health data and its importance (video)
4. Data governance and privilege. (reading)
5. Terminology and key concepts for interpreting data (reading)

Module 3:

1. Key steps in the analysis of data (video)
2. Data tools (reading)
3. Make sense of a data Report (video)
4. Carry out a simple health data analysis task (video)

Module 4:

1. best practice for communicating health data. (video)
2. use of data visualizations for collaborative decision making (video)
3. Data visualization – Making data meaningful (reading)
4. Sharing data for research purposes(video)
5. Case example of sharing health data(video)
6. Case study: Real time data use- pascal metrics project, NSW Health. (video)

5.LEARNING METHODOLOGY: Reading and videos

6.KEY LEARNINGS:

Ways digital data is changing healthcare:

1. Increased informed treatment.
2. Increased coordination of care.
3. Decreased adverse drug events.
4. Decreased unnecessary hospital admissions
5. Decreased test duplication
6. Decreased burden on administration.

1.Easier access to patients irrespective of environment via video consultations and telehealth services.

2.Increased participation of patients using new and latest technologies and applications.

3.Some of the many uses of big data analytics are avoiding diseases which are preventable, Decreasing the waste, predicting pandemics and epidemics and enhancing quality of life.

4.Role of digital workplace:

1. Data literacy and efficiency
2. Remaining updated with digital innovations.
3. Skill mix of data analysts, clinical report writers, health informatics, chief clinical officers

1. Data availability and interoperability are the key to effective use of data analytics.
2. **Overview of data lifecycle:**
    1. Steps to follow data lifecycle: generating, collecting, storing, cleaning, visualizing, analyzing and acting.
3. What is Quality health data: how is it important?

a. Data should be relevant, accurate, timely and consistent.

b. Incomplete and error in data can lead to wrong diagnosis and analysis and can endanger the health of the patients.

1. Data governance provides authority and responsibility to stakeholders making it easier and efficient to work with data.

2. Mean, median, mode, variance, SD, CI, types of error, metadata, time series data, correlation and causation, confidentiality are few of the key statistical concepts for interpreting data.

a. **Key steps in analysis of data**:

3. Understanding the nature and scale of the issue, formulating a good query, collect and prepare data, analyzing the data, interpreting the data. Sharing and communicating and then acting on results.

4. Using appropriate tools for data analysis, using infographics, color and font while presenting makes the data meaningful.

5. When we combine data about the same individual from different sources it is called data linkage