

PART-1

SUMMER TRAINING REPORT

WORK FROM HOME ASSIGNED AND GUIDED BY Dr. P R SODANI
(DEAN, FACULTY MENTOR)

IMPACT OF COVID 19 ON MENTAL HEALTH OF ADULTS: A STUDY

BY

RAKESH REDDY SURUSANI

BACKGROUND



1

Pandemic started in December in Wuhan, China

2

It was declared public emergency in January 2020

3

Apart from the clinical consequences the pandemic has an impact on mental health

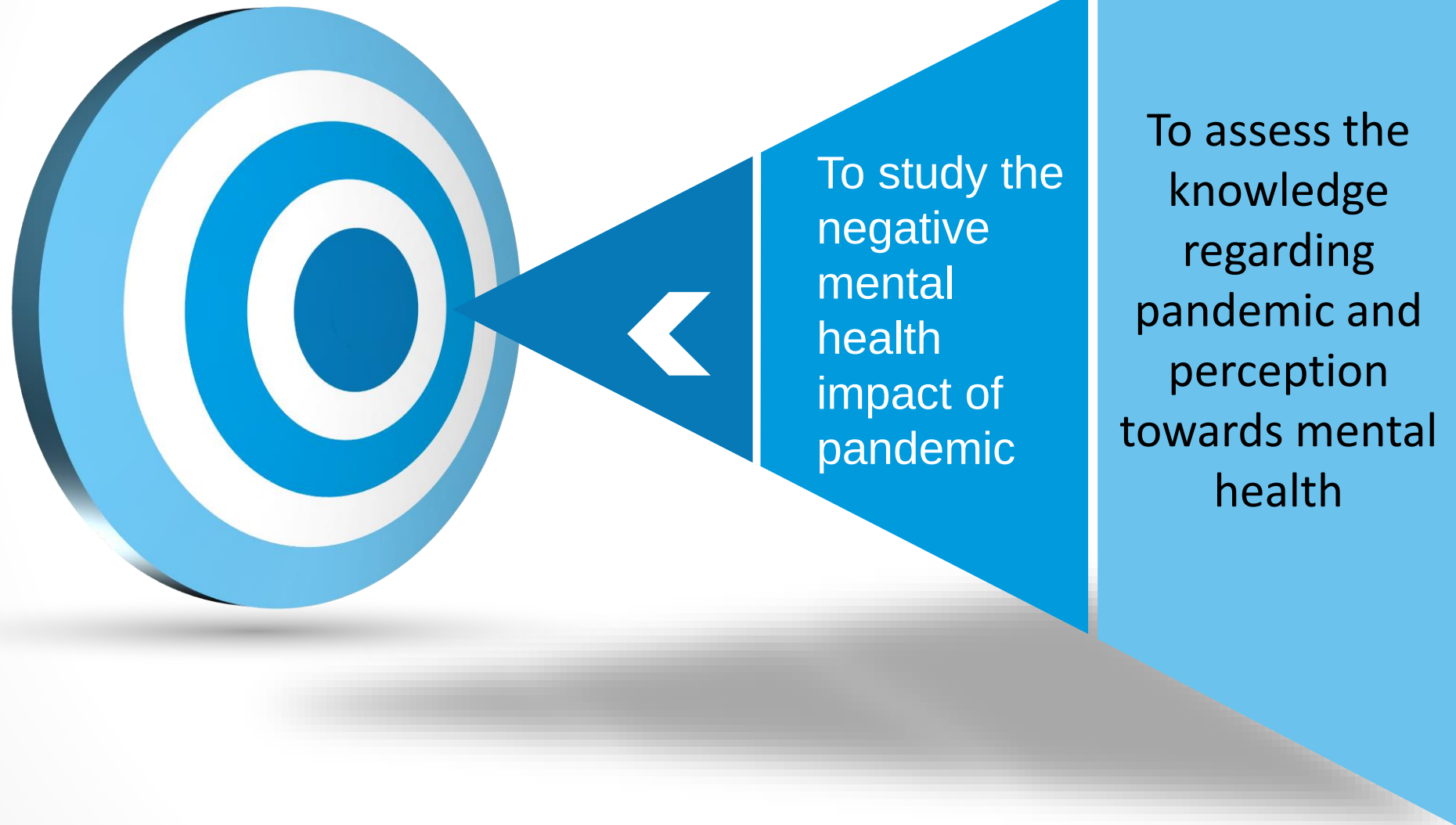
4

First case in India was reported on 30 January 2020

5

India went into lockdown on 24 march, 2020.

OBJECTIVES





REVIEW OF LITERATURE

- (Qui et al., 2020) has conducted a nation wide study in china during pandemic, they had a total of 52730 responses in which 35% have reported psychological distress. Females were subjected to more stress than males. Study also showed that among working people migrant workers had highest levels of distress. Young adults of 18-30 years showed high levels of stress.
- (Wang et al., 2020) conducted an online survey, the study received 1210 responses. A total of 52.8% respondents reported the psychological impact as moderate to severe anxiety and moderate to severe depression. They were worried about their family members contracting the virus. Females who were students with suggestive indication of virus had higher anxiety and depression.

- (Lau et al., 2005) conducted a similar survey in Hongkong in June 2003 to understand public response to SARS epidemic. In their study they found out that high proportion of respondents felt helpless, disturbed and apprehensive because of the epidemic. There were signs of posttraumatic symptoms and increased stress in the family. (Lau et al., 2006) conducted a survey in Hongkong using telephonic survey during SARS epidemic and reported that it had some positive impacts on social/family support and mental health awareness.
- (Bao et al., 2020) highlighted the services provided in china, use of internet and social media to share strategies for dealing with stress, enhancing social support system, eliminating stigma around pandemic, using psychosocial service system like telephone-based counselling.

Methodology

It is a cross-sectional, descriptive type of study, sampling technique used is convenience sampling, conducted through an online survey in form of questionnaire.



- An online form was developed using google forms along with a consent note for voluntary participation.
- Only adults above 18 years of age of Indian nationality were recruited in the study.
- The questionnaire has five sections, in the first section the participants were asked to fill their sociodemographic details.
- The second section consisted of five questions which were aimed to assess their awareness regarding the coronavirus pandemic.
- The third section included the General Anxiety Disorder 7-item (GAD-7) test .
- Section four of the questionnaire was aimed to assess the impact of pandemic on the participants mental health
- The last section of the questionnaire was aimed to assess the perception of the participants towards mental health

RESULTS

- An overall of 207 responses were collected
- Out of the 207 responses recorded 199 participants have accepted to take part in the survey.
- The mean age of participants was found to be 24.92 ± 5.16 with minimum age being 19 years and maximum age respondent is 69 years.
- The maximum number of respondents were from urban region which is 83.4% of total respondents and remaining 16.6% were from rural areas
- More than 95% of the respondents had an education level of graduates or and postgraduates
- Most study respondents were students who account to 73.9% out of 199 with 15.6% presently employed and 10.6% unemployed

Awareness regarding the pandemic- Section-2

- 99% of the respondents answered that regular handwash, social distancing and wearing a protective mask will protect from contracting the virus, 2 respondents said that social distancing will prevent from contracting the virus
- Out of the total respondents 87.9% of them have reported they have been following social distancing and 10.6% were not sure if they were following the norms
- 43.7% of the respondents were actively tracking the number of active cases, the remaining 51.8% of them were tracking the number of cases but not actively, 6 respondents have said that they have been intentionally avoiding , and 3 have responded they don't keep themselves informed about the emerging cases.
- Out of the total respondents only 20.6% of them have said that they travelled long distances during the pandemic

General Anxiety Disorder 7-Item (GAD-7) Test- Section-3

- 8 (4.02%) participants have reported severe anxiety, they were feeling nervous, not being able to stop or control worrying, they had trouble relaxing nearly every day.
- 79 (39.69%) participants have reported mild to moderate anxiety, they were easily irritable, feeling afraid of something awful happening and restless for several days.
- 56.2% reported that they have no anxiety and were not bothered by anything

QUESTIONS- GAD-7 Test	Not at all	Several days	More than half the days	Nearly everyday
Over the last 2 weeks how often have you been bothered by the following problems?				
[Feeling nervous, anxious or on edge]	56%	24%	16%	4%
[Not being able to stop or control worrying]	58%	28%	9%	6%
[Had Trouble relaxing]	60%	26%	11%	3%
[Being so restless that it is hard to sit still]	66%	23%	6%	6%
[Becoming easily annoyed or irritable]	46%	35%	11%	9%
[feeling afraid as if something awful might happen]	48%	33%	9%	10%

Impact on mental health during pandemic- Section-4

- 33% of them reported that they were worrying about the pandemic sometimes
- 39% have reported that they sometimes think about the pandemic and 25% often think about it
- 14% respondents have reported that they are often worried about contracting the virus
- 25% respondents reported that they often worry about their family members contracting the virus
- 42% of them responded that they had no trouble sleeping and 7% had faced issues sleeping
- 7% respondents felt financial stress during the pandemic
- 30% of them reported feeling angry and irritable sometimes

Perception towards mental health- Section-5

- 95% of respondents reported that there is a need to pay more attention towards mental health
- when asked about how often they spend time to relax 16% have reported they rarely or never relax and 84% have mentioned they relax often and always.
- 77% of respondents have said that they would recommend consulting a psychiatrist when needed.
- 84% of them responded that we need more health policies and programs to tackle mental health issues.

DISCUSSION

- Quarantine is an unpleasant situation, there is loss of freedom, separation from family, uncertain over the future, boredom and anger. It creates histrionic effects, but the potential benefit of a quarantine must be weighed carefully against possible psychological effects
- Epidemiological data on mental health of people with the virus and healthcare professionals treating them is not yet available hence the need for care is still unknown.
- the mental health measures taken during SARS outbreak can be used for reference to provide interventions where needed.
- Along with being cautious of the virus, improving services for mental health care is very much needed, online based counselling and virtual consultation might be the need of the hour.

CONCLUSION

- The pandemic has created a lot of panic and fear among people
- the health professionals who are treating the COVID-19 patients are also under immense stress and depression
- The impact of pandemic on mental health is being ignored and the issue needs to be brought to the forefront
- Psychological crisis intervention should also be included in the pandemic prevention steps.
- Online patient counselling and family counselling should be set up, other health care professionals and frontline personnel need to be polished in basic psychiatric management and evidence based medicine.
- With the pandemic advancing into the deeper stages, increasing mental health issues need to be addressed

A close-up photograph of a wooden desk. On the left, a tablet with a dark screen and a gold-colored bezel is partially visible. The words "THANK YOU" are printed in white, bold, sans-serif capital letters across the middle of the tablet's screen. To the right of the tablet is a spiral-bound notebook with a light green cover and a silver metal spiral binding. The notebook is open, showing several blank, cream-colored pages. The background is softly blurred, showing more of the wooden desk and some indistinct shapes in the distance.

THANK YOU

PART-2

REPORT ON ONLINE COURSE
ASSIGNED AND GUIDED BY Dr. P R SODANI (DEAN,
FACULTY MENTOR)

REPORT ON CUSTOMER ANALYTICS

BY

RAKESH REDDY SURUSANI

A silver MacBook Air laptop is open on a light-colored wooden desk. To the left of the laptop is a black smartphone. In front of the laptop is a black notebook with a pen resting on it. The background is a blurred green and brown, suggesting an outdoor setting. A semi-transparent blue rectangle is overlaid on the right side of the image, containing white text.

LEARNING METHODOLOGY

The course is available on Coursera platform. The lectures were delivered via videos with the help of PowerPoint presentations as resources. For application, videos and examples from real life situations were demonstrated

COURSE OBJECTIVES

To describe the major methods of customer data collection used by companies and understand how this data can inform business decisions.

To describe the main tools used to predict customer behaviour and identify the appropriate uses for each tool.



To communicate key ideas about customer analytics and how the field informs business decisions.

To communicate key ideas about customer analytics and how the field informs business decisions.

CONTENT

- What is descriptive analytics
- Descriptive data collection: survey overview
- Descriptive data collection: Net promoter score and Self reports
- Survey design
- Passive data collection
- Media planning
- Causal data collection
- Different types of prediction we make
- Ways of quantifying data
- Regression analysis
- Demand curve

- Making predictions
- Making predictions using data set
- Probability models
- Implementation of probability models
- What is prescriptive analytics
- Using the data to maximise revenue
- Parameters of the model
- Market structure
- Competition and online advertising models

DESCRIPTIVE ANALYSIS

- Descriptive analysis is a way of linking the market to the firm through decision. It's the information that is needed to make decisions
- Types of decisions managers need to make, some may be exploratory in nature, other can be purely descriptive and can be causal in nature
- The data that needs to be collected depends on the type of question that we need answers for.
- In descriptive data collection we need answers to who are our customers, what is their wallet share for our company, this can be done in active ways and passive ways, active ways are surveys and customer self-reports.
- For exploratory data collection we have focus groups, internet communities and online communities
- In designing a survey first step is to make sure results are generalizable, then list what you want to know, draft questions, evaluate, test, retest redraft then most important step get approval from company

PREDICTIVE ANALYSIS

- When we predict anything, we predict for a fixed period in the future, like we may want to know in the next year how many purchases will someone make
- We quantify data in two ways one is predicting one period ahead and other is predicting more than two periods ahead. For predicting one period ahead we use regression analysis
- Regression is quantifying the relation between two variables. Explaining a dependent variable from a set of predictor variables called independent variables
- Regression helps us put numbers behind demand curve, with 1\$ change in price how much does demand change
- Regression types models are limited to predict for only certain period, without data we cannot predict into the future
- Probability models help in predicting for a longer horizon of time.
- one example of probability model is buy till you die model and several other models are available for lots of activities like purchases, website visits etc.

PRESCRIPTIVE ANALYSIS

- First step is to define the goal which is maximise revenue, then action which is setting the price or changing it, for this we need a model to give us relation between price and revenue generation
- How to find what should be the price change to obtain maximum revenue
- How to increase the profits of the company which is minus the production costs and other costs incurred
- The optimization process tries to increase price until there is no additional gain in profit. When we increase the price way too much revenue reduces, cost increases and negative gain in profit
- At what point should we stop, that is when increasing revenue equals to increase in cost and decrease in revenue equals to decrease in cost, we get optimal profit. Marginal revenue is equal to Marginal cost
- Based on the customer whether they want to buy a single product or multiple products we can sell them by bundles to optimise profit

THANK YOU