

Summer Training Report

On

**Health and Wellbeing of Youth as of COVID-19
Lockdown**

Under the Guidance of
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Topic: Health and wellbeing of youth as of COVID-19 lockdown in India.

Objectives:

1. To study the physical and psychological wellbeing of youth [¹] (age group 15-29) during COVID-19 lock down in India.
2. To identify key physical and psychological wellbeing related to youth.

Methodology:

Primary data was collected using online questionnaire. The primary respondents were individuals of age group [15-29] years, who can read and write English having a working internet access. Nonprobability sampling methods was being used for sampling. Responses from 20 states of the country were collected. As many as, 152 responses were received. Secondary data was mainly collected from the official website of WHO and google scholar.

Analysis and Interpretation of primary data collected, was done using MS Excel and graphical representations.

Results:

During complete lockdown in the country, significant presence of psychosomatic symptoms among youth were observed. Although negligible physical health complaints were observed but maintaining good mental wellbeing was challenging for them.

Health and Wellbeing of Youth During COVID-19 Lockdown in India.

1. Introduction:

On dated 31 Dec 2019, Wuhan Municipal Health Commission, China, reported a cluster of cases of pneumonia in Wuhan, Hubei Province. A novel coronavirus was eventually identified. Known modes of transmission of respiratory viruses, infection and prevention control were published to protect healthcare workers, recommending droplets and contact precautions while caring for patients. Seeing the alarming level of speed of spread and severity, WHO characterized SARS-Coronavirus outbreak as Pandemic on 11th March 2020. [2]

India reported first positive case of Severe Acute Respiratory Syndrome [SARS] Coronavirus-2 on dated 30th Jan 2020 in Thrissur district of Kerala [3] and as on 04th July 2020, the statistics of the country is as follows: - Total active case: 235433, Cured/Discharged: 394226, Deaths: 18655, Migrated: 1. [4]

The prime minister of India announced first complete lock-down in the nation for 21 days from 24th March 2020. Normally bustling streets in cities across India were mostly deserted as the country observed the shutdown. [5] Everything in the country gone nonoperational except essential services. On completion of first lockdown, on dated 14 April, after consulting state governments and advisory committee, lock-down was further extended for the second phase till 3rd May 2020. [6] On 16th April the whole country was divided into zones: Red zone- Indicated the presence of infection hotspots, Orange zone- Indicated some infections, Green zone- Indicated zero infection. [7]

For the third phase, on dated 1 May 2020, Ministry of Home Affairs (MHA) and Government of India extended lockdown for the period of two weeks, till 17th May 2020, with some relaxations. [8] But India was witnessing daily increase in the positive cases. For the fourth phase, on dated 17 May 2020, the National Disaster Management Authority [NDMA] and the Ministry of Home Affairs [MHA] again extended the lockdown period for two weeks beyond 18th May 2020 with additional relaxations. [9]

After this phase country began to unlock, people were again out of their home searching the normal lives, but things were not so normal like earlier. Those days of complete lockdown have left its impressions on the health and wellbeing of the people. Streets were open but with all the necessary precautions. People can be seen wearing face masks and maintaining the norms of social distancing. These are the new normal until a potential cure is found.

Following were the guidelines on preventive measures of COVID-19 by WHO:

1. Clean hands regularly and thoroughly with an alcohol-based sanitizer or soap and water. It will kill the viruses that may be on your hands.
2. Maintain at least 1 meter [3 feet] distance from people.
3. Avoid going to crowded places.
4. Avoid touching eyes, noses and mouth, from there virus can enter your body if touched with contaminated hands.
5. Follow good respiratory hygiene and make sure people around you also follow the same. This means covering mouth and nose with tissue or elbow while coughing or sneezing.
6. Stay home and isolate yourself even if you have mild symptoms such as cough, cold, fever, headache, until you recover.
7. You should consult your medical practitioner if you have cough, fever, difficulty in breathing, if possible, have phone call with them in advance and follow the directions of your local health authority.
8. Keep yourself updated with the information from the trusted source such as World Health Organization, your local or state or national health authority. [¹⁰]

Youth represents the future of families, communities and country. In general, their lives are filled with many responsibilities. Continuous strive to achieve success in their personal life, academics, job and securities, finance and many others... brings lots of stress in their lives. Those who are in schools have the continuous pressure to perform good in their academics; those in college and universities find it increased burden to maintain balance between academic achievements and acquiring necessary skill sets to become ready for the future demand of the job market or entrepreneurial venture; and those already in the job or entrepreneurial venture find it even more pressurized to continuously perform better than

yesterday to secure safe growing position in the organization or to generate more profit respectively. Maintaining the family life is also nowhere less significant task that can be left unmentioned. Hence, the health and wellbeing of youth is very crucial and to be administered wisely to secure the future of the economy. Due to COVID-19 lockdown, youth of the country lost touch with their social groups, academics, jobs, daily health routine and outdoor activities. That not only affected their physical health but psychological health also.

The objective of this study is to study health and wellbeing of youths as of COVID-19 lockdown.

2. Review of Literature:

1. Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown

Sélim Benjamin Guessoum, Jonathan Lachal

- The study revolved around adolescent psychiatric disorder related to COVID-19 pandemic and lockdown.
- This study stressed on probable psychological problem that may emerged due to lockdown and related activities.

Study concluded that pandemic COVID-19 and lockdown could result in increased psychiatric disorder such as Post-Traumatic Stress, Depressive, and anxiety Disorders among adolescents. Long term confinement in home associated with mental disorder. Adolescents are vulnerable and require more careful attentions. [11]

2. Epidemics, quarantine and mental health

Kaushik Chatterjee and V.S. Chauhan

To prevent spread of novel COVID-19 disease human separation were advised by the government. This study claimed quarantine or isolation has been used since 14th century and found effective in stopping the spread of any contagion disease.

Authors tried to pen down the importance of quarantine or mass lockdown and associated mental health issues. Results of this study shows high prevalence of psychological distress.

Long term lockdown is found more associated with Post Traumatic Stress Disorder [PTSD] and depression. It is advised to fill home quarantine time with physical, cognitive and relaxation exercise, reading and entertainment. [12]

3. The psychological impact of the COVID-19 epidemic on college students in China

Wenjun Cao , Ziwei Fang [Pubmed]

This study suggested COVID-19 pandemic not only created risk of death but also unbearable psychological pressure among college students of China. Economic effects, sudden changes in daily activities, also delays in academic activities are the reasons that causing symptoms of anxiety. Authors said social support is negatively associated with symptoms of anxiety

It can be concluded from this study that mental health of college students is significantly affected during public health emergencies. Parted away from normal routine life and sudden significant changes have negative psychological health impacts. The mental health of students should be given more attention by the governments and caregivers.[13]

4. How to deal with COVID-19 epidemic-related lockdown physical inactivity and sedentary increase in youth? Adaptation of Anses' benchmarks

Irène Margaritis, Sabine Houdart [PubMed]

- The study tried to explain restricted physical movements and increase in sedentary behavior among youth due to COVID-19 lockdown and associated health risk.
- It also pinned on risk to adopt unhealthy behaviors associated with sedentary lifestyle that may lead to serious physiological health problems.
- For those youth with existing comorbidities like diabetes, hypertension and obesity, this pandemic lockdown is more virulent.

Physical inactivity and sedentary lifestyle were increased during the lockdown so as the associated health risk. Thus, it can be inferred from the study that lockdown was inevitable and so did the health consequences but certain preventive measures like Physical activities could be adopted to mitigate the consequences to significant extent. [14]

3. Methodology

A self-administered online survey form [or google form] was used as a tool to gather the primary data from the age group [15-29 years]. Non-probability sampling was done to reach the respondents. The questionnaire was being circulated by the help of the known contacts of the researcher belonging to different states of the country. E-mail and Whatsapp [a social media app] were used to share the link of the form. The forms were shared with the contacts [approximately 50 people] first and then they were further requested to share it with at least 10 of their peers or family and relatives. Thus, the form reached about 500 persons. The data used in this analysis was collected at the same time from all the states. The survey was conducted from June 25, 2020 [the last week of June] till July 06, 2020 [the end of first week July]. Each questionnaire had an information about the research objectives at the beginning. Ethical approval from all participants were taken. It took maximum 5-8 minutes to complete the survey. No incentives were provided to the respondents and participation was voluntary and anonymous. Data gathered were confidential and protected at all stages of the study. All data were either computer or smart phone entered thus minimizing errors of data entry. Based on the number of responses got, the response rate was 30.4%.

A total of 152 responses were received so far from 20 states [Jharkhand, Rajasthan, Gujarat, Bihar, Maharashtra, Madhya Pradesh, Tamil Nadu, Uttar Pradesh, West Bengal, Andhra Pradesh, Telangana, Delhi, Punjab, Jammu and Kashmir, Karnataka, Himachal Pradesh, Goa, Meghalaya, Odisha, Sikkim] of the country.

Table 1: Per cent Distribution of Respondents by States

States	Number	Per cent [Approx.]
Jharkhand	29	19
Madhya Pradesh	13	09
Rajasthan	12	08
Bihar	11	07
Tamil Nadu	11	07
Gujarat	10	07
Maharashtra	10	07
Punjab	10	07
Uttar Pradesh	08	05
Andhra Pradesh	7	05

Delhi	7	05
West Bengal	6	04
Telangana	6	04
Jammu and Kashmir	4	03
Karnataka	2	01
Himachal Pradesh	2	01
Goa	1	01
Meghalaya	1	01
Odisha	1	01
Sikkim	1	01
Total	152	

Health and Wellbeing Questionnaire: Physical and Psychological

The questionnaire was designed like health and wellbeing survey done in previous studies of youth health [15] [16]. It included questions of socio-demographic information [age sex, marital status etc.], general health and health awareness, health problems and symptoms, health service utilized, general wellbeing, perceived burden or stressor, social support & satisfaction and functional status during lockdown. All the questions were only focused for the time period of complete lockdown in the country.

General health and health awareness:

Here questions related to Stay and safety, awareness about sanitation and safety measures were being asked. Responses to which helped in assessment of current situation [in terms of safety] and awareness level about COVID-19 pandemic and related precautionary measures of respondents.

Health problems, strains or psychosomatic symptoms:

Health complaints measuring as adopted in previous studies[17][18] with sample items stomach trouble, rapid heart rate, heart burn, headache, dizziness, concentration difficulties, sleep disorder, depressive mood, anxiety and stress was being recorded on a 3 point scale where 1= never, 2=sometimes and 3= most often.

Health service utilized:

It inquired about if any illness and health service utilized during the lockdown period. With

dichotomous options available to respond i.e. Yes or No. if the respondents replied Yes, further few sets of questions were asked about the kind of health service utilize, number of times he/she required to see the doctor, if she required to get admitted in the hospital and about the recovery from the illness. [19]

Psychological Wellbeing:

To measure psychological wellbeing, a most widely used tool by world health organization called WHO5 wellbeing index was being implemented. [20] It was designed in 5 by 5 multiple choice grid. Percentage score was been calculated from the raw data using formula suggested in the tool.

Social support and satisfaction:

for the assessment of social support and perceived satisfaction two questions from previous studies [21] were employed. “First: How many people do you know- including friends and family- who support you whenever you feel down?”. Numerical responses to which were recorded as low [1 or less person], medium [2-3 persons] and high [>3persons]. “Second: To what extent do you satisfied with the support during COVID-19 lockdown?”. Responses to which were asked to rate on a scale of five, where 1 meant not at all satisfied and 5 meant highly satisfied.

Perceived burden:

It inquired about the area on which the respondent felt increased burdened to pandemic and lockdown imposed. Sample area were academic, future job, losing current job, financial, relationship with peers, relationship with parents and isolation. Responses were taken on a four-point scale where the four measuring scales were such that: 1- not at all, 2- moderate, 3- more than moderate and 4- very. [22]

Functional status during lockdown:

_on a scale of five where 1=very badly, 2= badly, 3=neutral, 4= well and 5= very well; how the things gone during the lockdown were measured for the following area: financial security, health and personal safety, relationship with peers, relationship with parents,

relationship with siblings, activities related to helping and encouraging others, intellectual development, socializing and other recreational activities. [23]

4 Results

Socio-Demographic Characteristics of Respondents

Regarding demographic characteristics, respondents from 20 states of the country were participated in this study. 42 per cent were male and 58 per cent were female. When asked about marital status, 92 per cent of participants answered not married. Average age of the respondents were 23 years. Following were responses to the question asked about higher academic level: 48 per cent were Graduated, 44 per cent were Post Graduated followed by 5 per cent were 12th passed and 2 per cent were 10th passed. Among all the participants of this study, 69 per cent were students, 22 per cent were working professional, 09 per cent were unemployed and 3 per cent were self-employed.

Age group specific response details are being provided in the table below. The major participants of this study are from the age group [20-24 years], significant numbers of respondents from the age group [25-29 years] participated, while relatively lesser responses from age group [15-29 years] are received.

Table 2: Percent Distribution of Respondents by their Age

Age Group	Number	Per cent [Approx.]
15-19 Years	12	08
20-24 Years	83	55
25-29 Years	57	38
Average age	23 years [max]	

General health and health awareness

During the complete lockdown, majority of the respondents were at home and in safe environment while very few have reported stayed/stuck in not so home like situation [e.g. hostel, hotel etc.]. Nearly 50 percent of the respondents reported that they went out of home for purchasing essential things like Groceries, Fruits and vegetables, medicines etc.

Table 3: Per cent Distribution of Respondents by their Use of the Preventive Measures

Item	n= 152		n= 76 (those who went out)	
	Number	Per cent	Number	Per cent
Used Face Cover/ Mask	150	98.7	64	84.7
Maintained social/ physical distancing	148	97.3	NA*	NA
Maintained Hand Hygiene	150	98.7	NA	NA
*NA= Not Available				

It can be inferred Indian youth were highly aware about the use of face mask/cover, maintaining social/physical distancing and regular hand hygiene, in order to fight against the novel coronavirus disease (Table 3). They knew, it's important to maintain 6 feet distance both indoor and outdoor from the people who are not from the same household is important in reducing the spread of the COVID-19 disease. [24] Also, they understand it clearly that in the light of stopping the spread of COVID-19 disease, regular hand hygiene has its significant role. Evidences suggested that the COVID-19 virus can be transmitted by the contact and hence contaminated hands can transmit the disease when it touches the mucosa of the mouth, nose and eyes; evidence also indicated that it can also transmit virus from one surface to another by contaminated hand.[25] When asked about the duration one should wash their hands 92.7 per cent respondents replied at least 20 seconds. This reflects the high awareness among the youth.

Health problems or psychosomatic symptoms

Table 4: Physical Health of Respondents [n=152]

Items	Per cent
General health:	
Very good/ Excellent	24
Good	73.3
Poor	2.7
Faced illness during lockdown [Yes]	13.3
Visited health facility for treatment [n*=20]:	
0 time	50.0
1 time	29.4
2 times	17.6

3 times or More	2.9
Been Hospitalized [Yes]	0
Physical health problems [sometimes/very often]:	
Headache	54.0
Stomach Trouble	25.3
Heart Burn	14.0
Recovered from illness:	
Yes	68.2
Recovering	18.2
*n= those who faced illness during lockdown	

It can be understood from table 4, that most youth of the country didn't experience physical health related problems during the lockdown. Very few who reported certain illness got healed at home without any medical supervision.

Table 5: Psychological health of Respondents

Items	Per cent
Burdens [Very/ Highly]	
Academics	72.0
Future job prospects	78.2
Financial	60.1
Isolation	52.5
Social support	
Low [None or 1 person]	5.3
Medium [2-3 persons]	13.3
High [3 persons or more]	81.3
Satisfied with the support [Very/Highly]	65.1
Psychosomatic health problems [sometimes or very often]	
Depressive mood	52.0
Stress	66.6
Anxiety	46.0

Table 5 suggest, majority of youth faced issues of stress, anxiety and depressive mood significantly. Addition to that losses in academic, uncertain future job prospects, financial concerns and fear of isolation were the topmost stressors among them. It can be certainly said that youth of the nation faced psychosomatic symptoms during the complete lockdown.

While, most of them had very good social support for whenever they felt low.

Health service utilized

From table 4, it is clearly visible that youth of respondents didn't face any kind of illness during the lockdown. Among those who faced some illness only 20 per cent required to visit the health facility, where majority of them preferred private hospital or clinic. Most of them reported recovered from the issue.

Perceived burden/ stressor

Table 5 suggest, future job prospect was found the top-most stressor among the youth, losses in academic were also a significant stressor, financial concerns and fear of isolation both had its remarkable presence in raising perceived psychological burden of youth during the lockdown.

Social support and satisfaction

Table 5 depicts, youth of the nation have high social support for whenever they felt down and It can be certainly said for the social support concern, based on the data gathered, that most of the youths were satisfied with the support they got during the COVID-19 lockdown.

Table 6. functional health of respondents:

Items	Percentage [Good]
Health and Personal safety	88.7
Financial Security	80.0
Socializing and Recreational Activities	62.7
Intellectual Development	76.7
Helping and Encouraging others	84.0
Relationship with friends and family	88.2

From table 6, Health and safety were the area of prime concern for the youth and they have found very active and cautious in maintaining all the necessary precautions to ensure it.

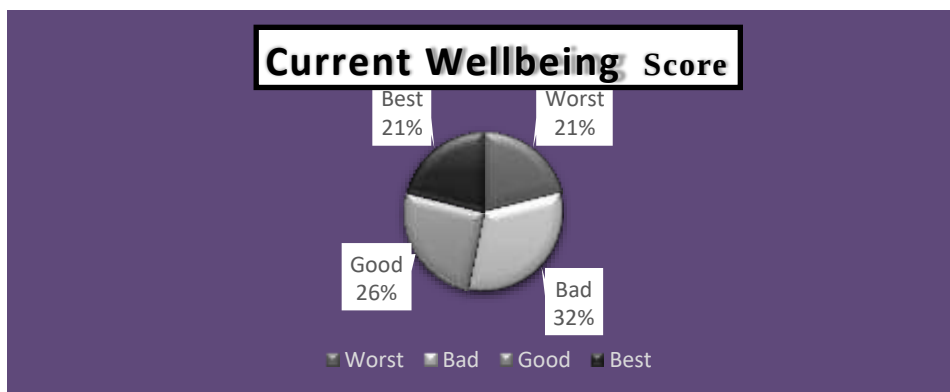
Despite shut down in the nation, intellectual development of youth was not shut at all, majority of respondents reported somehow good or well in development in this area. Socializing and other recreational activities were lesser significantly. But they were found actively engaged in the activities related to encouraging and helping others. Hence it can be concluded for this section that overall of functional health of youth of the nation was good during the complete lockdown in the country.

Current Mental Wellbeing

Mental health [or wellbeing]: It is a mental state where an individual realizes his or her own potentials, have capability to deal with normal day to day stresses of life, can work productively and is able to make contribution to his or her community.[²⁶]

Wellbeing could be understood as condition of a person or group. A good level of wellbeing means good or higher presence of positivity in the following dimensions of one's life: physical, mental, social, personal fulfillment and sense of accomplishment. [²⁷]
[²⁸]

Figure 1: Percent distribution of respondents by their wellbeing score.



From figure 1, 53 percent of youth had poor current mental wellbeing score. Hence it can be clearly understood that maintaining mental wellbeing was certainly challenging for the youth of the nation.

5. Discussion

Previous studies done in the area of health and wellbeing of youth in mass quarantine/ lockdown like situation suggested that long term confinement in home can give rise to mental disorder [11,12]. Since, most of the activities came to halt in lockdown like situation which results in restricted physical movements and increase in sedentary behavior of an individual. Long term lesser physical movements invite different physical health related issues that can be fatal as well. Addition to that long-term inactivity give rise to sedentary lifestyle of an individual. That may lead to serious psychological problems. For those youth living with comorbidities like hypertension, diabetes and obesity, lockdown could be riskier [14].

For youth, public health emergencies and long-term confinement in home may lead to severe symptoms of anxiety. Pandemic not only bring the risk of death but also high psychological pressure among youth. A sudden change in schedule, daily activities and halt in their respective profession give rise to symptoms of anxiety [13].

In this study it is found that mass quarantine/ lockdown gives rise to many psychosomatic health symptoms like depressive mood, stress and anxiety. Which is also observed in the other research studies as well. While negligible physical health related issues were observed in the present study.

This study also highlights the factors that are associated with increased psychological burdens of youth. Long term confinement in home, health risk associated with pandemic, losses in academics, uncertain future job prospects, and perceived risk of isolation are the major stressors during lockdown which can lead in Post-Traumatic Stress Disorder.

Hence it can be clearly understood that psychological health of youths should be given proper attention and care during public health emergencies and long-term mass quarantine/ lockdown like situation to ensure their sound health and wellbeing.

4. Conclusion:

Although among youth negligible physical health related complaints were observed but the presence of psychosomatic symptoms was significant. It is observed that maintaining good mental wellbeing during lockdown days was very challenging for most of the youth.

For complete lockdown [or mass quarantine] like situation in future, the government, parents and caregivers are advised to monitor psychological health of youth and provide necessary mental support.

5. References:

¹ National youth policy 2014. link

² <https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19>.

³ <https://www.indiatoday.in/india/story/kerala-reports-first-confirmed-novel-coronavirus- case-in-india-1641593-2020-01-30>.

⁴ <https://www.mohfw.gov.in>

⁵ <https://news.un.org/en/story/2020/03/1060132>

⁶ <https://www.livemint.com/news/india/pm-modi-announces-extension-of-lockdown-till-3-may-11586839412073.html>

⁷ <https://www.bbc.com/news/world-asia-india-52306225>

⁸ <https://www.newsworld24.in/2020/05/lockdown-extension-till-may-17-read-mha-guidelines.html>

⁹ <https://www.livemint.com/news/india/covid-19-lockdown-4-0-coronavirus-lockdown- extended-till-31-may-says-ndma-11589715203633.html>

-
- ¹⁰ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>.
- ¹¹ Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown, [10.1016/j.psychres.2020.113264](https://doi.org/10.1016/j.psychres.2020.113264)
- ¹² PMID: [PMC7176378](https://pubmed.ncbi.nlm.nih.gov/37176378/)
- ¹³ The psychological impact of the COVID-19 epidemic on college students in China , [PMC7102633](https://pubmed.ncbi.nlm.nih.gov/37102633/)
- ¹⁴ PMID: [PMC7267755](https://pubmed.ncbi.nlm.nih.gov/37267755/)
- ¹⁵ El Ansari W, Stock C. Is the health and wellbeing of university students associated with their academic performance? Cross sectional findings from the United Kingdom. *Int. J. Environ. Res. Public Health*. 2010;7:509–527. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
- ¹⁶ El Ansari W, Stock C. Feeling Healthy? A Survey of Physical and Psychological Wellbeing of Students from Seven Universities in the UK. [[PubMed](#)]
- ¹⁷ Stock C, Küçük N, Miseviciene I, Guillén-Grima F, Petkeviciene J, Aguinaga-Ontoso I, Krämer A. Differences in health complaints between university students from three European countries. *Prev. Med.* 2003;37:535–543. [[PubMed](#)] [[Google Scholar](#)]
- ¹⁸ 25. Simonsson B, Nilsson KW, Leppert J, Diwan VK. Psychosomatic complaints and sense of coherence among adolescents in a county in Sweden: A cross-sectional school survey. *Biopsychosoc. Med.* 2008;2:4. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
- ¹⁹ Stock C, Küçük N, Miseviciene I, Guillén-Grima F, Petkeviciene J, Aguinaga-Ontoso I, Krämer A. Differences in health complaints between university students from three European countries. *Prev. Med.* 2003;37:535–543. [[PubMed](#)] [[Google Scholar](#)]
- ²⁰ Christain W Topp, The who 5 wellbeing index: a systematic review of literature [[pubmed](#)]
- ²¹ Sarason IG, Levine HM, Basham RB, Sarason BR. Assessing social support: The social support questionnaire. *J. Pers. Soc. Psychol.* 1983;44:127–130. [[Google Scholar](#)]
- ²² Feeling healthy? A survey of physical and psychological wellbeing of students from seven universities in UK [[pubmed](#)]

- ²³ Bruusgard D, Nessioy I, Rutle O, Furuseth K, Natvig B. Measuring functional status in a population survey. The Dartmouth COOP/WONCA functional health assessment charts used in an epidemiological study. *Fam. Pract.* 1993;10:212–218. [[PubMed](#)]
- ²⁴ <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>
- ²⁵ <https://www.who.int/docs/default-source/inaugural-who-partners-forum/who-interim-recommendation-on-obligatory-hand-hygiene-against-transmission-of-covid-19.pdf>
- ²⁶ http://origin.who.int/features/factfiles/mental_health/en/
- ²⁷ Huseyin Naci, John P. A. Ioannidis, Evaluation of Wellness Determinants and Interventions by Citizens Scientists. PMID 26068643.
- ²⁸ WHO, https://www.hsl.gov.uk/media/202146/5_kim_who.pdf.
- ²⁹ National youth policy 2014.
- ³⁰ El Ansari W, Stock C. Is the health and wellbeing of university students associated with their academic performance? Cross sectional findings from the United Kingdom. *Int. J. Environ. Res. Public Health.* 2010;7:509–527. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
- ³¹ El Ansari W, Stock C. Feeling Healthy? A Survey of Physical and Psychological Wellbeing of Students from Seven Universities in the UK. [[PubMed](#)]
- ³² Stock C, Küçük N, Miseviciene I, Guillén-Grima F, Petkeviciene J, Aguinaga-Ontoso I, Krämer A. Differences in health complaints between university students from three European countries. *Prev. Med.* 2003;37:535–543. [[PubMed](#)] [[Google Scholar](#)]
- ³³ 25. Simonsson B, Nilsson KW, Leppert J, Diwan VK. Psychosomatic complaints and sense of coherence among adolescents in a county in Sweden: A cross-sectional school survey. *Biopsychosoc. Med.* 2008;2:4. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]

³⁴ Sarason IG, Levine HM, Basham RB, Sarason BR. Assessing social support: The social support questionnaire. *J. Pers. Soc. Psychol.* 1983;44:127–130. [[Google Scholar](#)]

PART-2

Online Course Report-1

E-Health: More Than Just an Electric Record By: The
University Of Sydney

	Student's Name	Baijnath Thakur
	Roll No	0898
	Course Name	E-health: More than just an electronic record.
	Website	Coursera
	Number of Hours	15
	Duration	Fifteen hours or five weeks of content [2-3 hours/week]
	Course Instructor	Tim Shaw, Professor in eHealth, Research in implementation science And eHealth group [RISe]
	Objective(s) of the course	1. How efficiently technology can be used in healthcare. 2. How e-health can improve coordination and efficiency in Healthcare and its possible barriers.
	University	University of Sydney

About the Course

This course mainly focuses on presenting possible breadth of technology that can be applied in healthcare field to reap the benefits of efficient coordination and ease. It also tries to show the overall impact on patient care to the clinical professionals, managers, administrators, and researchers. Throughout the course, instructors and guest presenters weighed the pros and possible barriers in implementation of eHealth.

The course consists five modules and to pass the course one needed to score 40% and 60% in the respective assignments and one must review at least one peer assignment.

Methodology:

The methods of teaching included:

Lectures with power point presentations and video Case studies,
Assignment
,
Discussions
, Quiz,
Peer review

WEE	MODULE	OBJECTIVES	CONTENT	KEY LEARNING	APPLICATION
1	What is E-health?	To introduce eHealth.	Concept and definition of e-health.	eHealth has potential to become new trend in healthcare.	Hospitals and Health facilities.
2	Health in Our Hands.	To show how Technology Can be Implemented to Track one's Health.	Use of technology to monitor own health.	Figured out areas where Health apps and software can be Used to maintain one's health.	Mobile phones, Wearable devices Etc.
3	Data and Quantified Self.	To discuss Health data and Digital health Recording system.	Discussed the Benefits of having Electronic records of the Health data and its possible use even at the critical situations.	e-records is much better and hassle free than traditional methods and its application can be proven lifesaving.	Maintaining Healthcare records
4	Interacting With Health Professional Using New Technology.	To discuss Healthcare Interaction through eHealth platform.	Possible benefits of eHealth and possible barriers in implementation.	E-health has many pros that outweigh the cons far significantly.	Hospitals, clinics And health facility.
5	E-Health in Professional Practice.	To discuss Implementation	Possible way to design and implement.	Possible way to Implement e-health Model.	Designing eHealth Ideas and its Implementation.

Summary

This course equipped its learner with the knowledge of electronic health, its benefits and showed thought-provoking possibilities of implementation of new technologies in the field of healthcare. The ease of access even from remote location, digital record maintenance, affordability, maximum reach, quality and rich healthcare experience are the competitive advantage of eHealth over traditional healthcare. Although, certain barriers in implementation are there, but the pros and benefits outweigh them.

PART-2

Online Course Report- 2 COVID-19

CONTACT TRACING

BY: John Hopkins University

Student's Name	Baijnath Thakur
Roll No	0898
Course Name	COVID-19 contact tracing offered by Johns Hopkins University
Website	www.coursera.org
Number of Hours	Approximately 6 hours
Course Instructor	Emily Gurley, Associate Scientist, Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health
Objective(s) of the course	1.To learn about SARS-CoV-2, natural history, incubation period, infectious period and its transmission. 2.To understand contact tracing and its implementation.

About the course:

The course is basically designed to equip the healthcare professionals, students, managers and clinicians with the knowledge of contact tracing, challenges and barriers in the way of its implementation. It explained the art of identifying the COVID-19 case & possible contacts, sound implementation of communication skills, ethics and privacy factors associated with it.

Methodology:

Lectures, reading materials, video representing the practical setting were the methods adopted for teaching the course.

Table :

Module	Objectives	Content	Key learning	Application
Basics of Covid-19	1}To understand origin of the coronavirus, its signs& symptoms 2}Its transmission and diagnosis.	1}Introduction to SARS-CoV-2 virus 2}Its natural history, Diagnosis, Transmission.	1}SARS-CoV-2 which has caused the pandemic worldwide. As of now the origin has been found to be bats and has jumped species. 2} Some people develop signs and symptoms; some people are completely asymptomatic. The common signs and symptoms are fever, fatigue, chills, myalgia, cough, loss of taste or smell, difficulty breathing, sore throat. Severe cases have chest pain, shortness of breath, bluish face or lips like symptoms. The incubation period is 2 to 14 days. 3} Mainly existing medical conditions, co-morbidities and old age (>65 years of age) are found at higher risk. 4} The main mode of transmission is via respiratory droplets from coughing, sneezing or meeting surfaces infected.	To protect oneself and others from getting infected.
Basics of Contact	To discuss contact tracing methods.	Contact Tracing for Covid-19 cases	1} how to perform contact tracing task.	To identify most probable case that may arise due to

Tracing for Covid-19	To identify infectious period and allocate quarantine or isolation.	Calculating isolation and Quarantine duration. Identifying high-risk situations	2} how to assign quarantine and isolation period.	close contact with the infected person.
Steps to Investigate Cases and Trace their Contacts	To trace the person who came in close contact with a COVID-19 infected person. Describe kinds of social support that case and contacts need for isolation and quarantine.	Steps to investigate Demo of how to provide social support.	1} how to tackle the situation once the case identified and how to approach their contacts. 2} once quarantine and isolation advised, how the person should be taken care of.	To curb the barriers of contact tracing. To satisfy the social need of quarantined or isolated person.
Ethics of Contact Tracing and Technological tools	Maintaining privacy and autonomy. Right selection of technological tools.	Importance of ethics while performing contact tracing. Rationale for using technology for contact tracing	1} Ethical considerations must be taken into account such that privacy and autonomy of the patients must be guarded well in order to avoid any sorts of conflicts.	Instilling trust among people. Facilitates better coordination and more ease of handling.

	.	and examples of techs used at each step.	2} Right selection technology gives better picture to the health professional in order to provide the best care to the patients.	
Skills for effective communication	How to have effective communication with cases and contacts Describe and overcome common difficulties with case and contact investigation and tracing. To understand body language signs to judge the situation of cases or contacts.	Importance of rapport. effective communication to gain more Precise information. Question types that should be used. Importance of Active listening.	Rapport is needed in contact tracing as it enables us to ask and get accurate information from the case or contact, educate regarding covid-19 and persuasively ask about isolation and quarantine. Points to be kept in mind for communication part: 1} Be confident, direct and reassuring. 2} Use simple words 3} One question or message at one time for better clarity and flow of conversation.	Creating mutual understanding between contact tracer and the case or contact. .

Summary:

COVID-19, a highly contagious disease is now a global threat. To stop the spread of this infectious disease, it is important for the global healthcare workforce to be well versed in the art of dealing with it. Contact tracing is a great tool that will help to identify infected people[case] or people with close contact with infected person. Timely identification, precise diagnosis and quick response could stop further increase in the number of cases, which will ultimately help in controlling this deadly virus from further growing.