A Study on health issues related to the psychological impact of COVID

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Abstract –India had undergone "lockdown" since March 25, 2020. The pandemic has resulted in many psychological impacts in the form of reduced level of patience, acute depression, increased level of violence, loneliness and abnormal behavior with friends and peer groups, loss of zeal and vigor etc. The urban life of Kolkata is not exceptional from that and lots of changes are there in between normal and new normal. Our present study emphasizes traces of these changes in the overall urban lifestyle of Kolkata. Moreover, the study will help to analyze the outcome which might have brought any behavioral changes in individual or any other health issues in post COVID period along with the impact on family members, including children. An online survey was conducted through Google questionnaire and based on the online survey data tables are prepared after quantitative analysis. The economic lifestyle of urban people of Kolkata has resulted in accommodation of new habits and practices in between the time of normal and new normal.

Keywords – Lockdown, Depression, Loneliness, Quantitative analysis, Questionnaire

Introduction

The whole world has witnessed an unprecedented COVID-19 pandemic, in the recent past. The outbreak of Corona Virus leading to COVID ailment first took place at Wuhan city in China in December 2019. Then the pandemic spread over to whole world leading to unimaginable death cases across the Globe. India was also, not an exception. Lakhs of people, in India, suffered from COVID disease, resulting unimaginable death tolls. There were many impacts of COVID-19 on human society. People suffered economic, health issues, psychological impacts like fear, anxiety etc due to COVID pandemic.

There was a deep-rooted impact of COVID-19 on the economy of the country. The industries, shops and other workplaces remained closed for nearly two years. Many people lost their jobs or could not carry out their businesses. People who lived their livelihood on daily wages faced miserable conditions, though numerable assistance was provided from the Government side. The situations in the rural areas were also no good. The farmers could not sell the vegetables they produced. The maids, who used to work in other houses, could not continue their jobs. Employees doing white-colored jobs in corporations also received fewer salaries for months. In many small-scale industries, employees either lost their jobs or did not get salaries for months together.

There was a shift in the working styles too. Suddenly, people working in the firms, offices were compelled to work from home on digital platforms. This created lots of stressful situations in their lives. They could not establish personal, face-to-face communication with their colleagues. Sometimes lack of internet facilities, insufficient digital equipment's, and proper space to work digitally in their homes made their jobs very stressful and difficult.

Journal of Contemporary Issues in Business and Government Vol. 29, No. 01, 2023 https://cibgp.com/

P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2023.29.01.043

Then there was the immense psychological impact of COVID. People could not go out of their houses and confined to their houses due to various norms of social distancing. They could not interact with their friends, relatives or attend social gatherings. All these situations led to severe stressful conditions and anxiety in their day-to-day lives. Prolonged confinements in houses led to some family issues too. Several cases of disputes and conflicts took places in the family too, due to impatience and stressful psychological conditions. Constant fear of losing jobs and anxiety led to various health issues, also. All these impacts disrupted peoples' behaviour, changes in characters and balanced mental condition, even after COVID also. People became more impatient and aggressive and there was a significant outburst of these characteristics in their daily lives. Impacts of psychological pressures result in constant depression, fear, anxiety, stressful situations. It has also resulted in spare time to be used for upgrading or nurturing the talents of many individuals.

The students' community was also put into an altogether new and unique situation. They were forced to attend online classroom from traditional offline classroom. They faced a new digital methodology, with which they were not much familiar with. Moreover, students in rural areas faced internet problems, which disrupted their normal leaning process. Many poor students did not have sufficient gadgets like laptops, android phones, desktops etc. to attend the online classes. In many instances, teachers were also not digitally competent enough to take online classes and thus the learning process was disrupted. The students and children could not go out of their houses, meet their friends, and attend social gatherings. All these created tremendous psychological distresses on the children and students' community.

Literature Review

Adnan and Anwar (2020) observed that digital learning was considered as an alternative learning platform during the COVID-19 pandemic.

Arboleda & Stuart (2012) found through their research that education can give relief to mentally retarded people.

Aucejo et al. (2020) observed through his research that economically downward people faced severe challenges to digital learning systems due to improper digital gadgets and high costs of internets.

Benzeval et al. (2014) categorized the relationships of income with mental health into three categories namely material, psychosocial and behavioural.

Brown ER, Ojeda VD, Wyn R, Levan R (2000) have observed through their study that mental health conditions have serious impacts on physical health of a person. Having good mental set up helps a person to lead a life with better life styles and with sound physical health.

Cleveland et al., (2013) showed through research that different types of attitudes and perceptions may lead to social distancing. Depression occurs in case of personal failure.

Davidson, Dowrick, & Gunn (2016) observed that social distancing is not desirable for people, especially for mentally ill people.

Gardner and Oswald, (2007) studied the impact of earnings on mental wellbeing. They found through their studies that those persons with higher incomes lead their lives with improved mental health conditions, whereas persons with low incomes lead more depressed and worried lives.

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Kapasia et al. (2020) observed that since COVID-19 broke out, all educational institutions were gradually closed. So to continue academic activities, an alternative pedagogy of online teaching had to be evolved, across the educational institutions.

Lee, (2020) opined that child deprived of traditional education, suffered from psychological trauma.

Meo et al., (2020) examined through his research students passing through long quarantine period faced significant stress and abnormal physical behaviours.

McInerney et al. (2013) and Askitas and Zimmermann (2011) examined through their studies that financial crisis may bring psychological shocks to people.

Oh and Lee (2019) found that health related misinformation and rumours disseminate fast and almost impossible to check.

Saraceno & Barbui (1997) found that poverty act as a catalyst to mental illness and it is a mental block for psychological improvement.

Satt N.(2020) observed that individuals undergoing or facing quarantine or isolation face more anxiety and depression and this situation lead them to learn more about the ailment.

Sommariva et al., (2018) stated that rumours through social media and other online platforms may bring depression and mental stress to the people, especially situation like epidemic.

Sommariva et al., (2018) observed through their research that various social media platforms are easily accessible to people now-a-days. Hence the rumours are difficult to control, once they spread.

Telemed J E Health, (2006) also noted that all the social media platforms should identify such accounts spreading misinformation and rumours and take appropriate actions to remove such accounts.

Research Methodology

Objectives of the Study

- 1. Measurement of the psychological impact in Post COVID period.
- 2. Assessment of any behavioral changes because of psychological impact.
- 3. Assessment of any mental imbalances of COVID on other family members (including children).
- 4. Determination of the health issues related to the psychological impact of COVID.
- 5. Analysis of any psychological impact of COVID in the workplace.

Sampling design

The sample size (N) is collected as 110 responses due to limitations of time. The sample was randomly drawn from Google questionnaire. Two types of survey were conducted. Sample size of 99 responses was used for Smart PLS through student version software since it cannot run more than 100 responses through free trial version.

Sources of Data

A Google questionnaire was framed and responses were collected based on the questionnaire to study the psychological impact and health issues due to Post COVID.

Research Design

We obtained the null hypothesis based on the parameters of psychological impact, behavioral changes, health issues, mental imbalances and its impact on friends and peer groups. Empirical research design was taken into consideration.

Research Questionnaire

- 1. What is the psychological impact of COVID in the Post COVID period?
- 2. What are the changes in the behavior of individuals during Post COVID due to COVID-19 period?
- 3. What are the outcomes that have resulted in the behavioral changes due to the psychological impact?
- 4. What is the relationship between the health issues and the psychology of individuals due to Post COVID?

Limitations of the study

- The number of respondents was limited (110 responses) due to time constraints through Google form questionnaire.
- The study involved survey in only Metropolitan area of Kolkata. Similar studies could be carried out in other states of India also.
- Targeted respondents were limited from a set of population.
- One study is limited to sample size to 99 since the data was analysed through student version of SmartPLS. Software such as Java, Python, Amos could also be taken into consideration for further scope of research from the data obtained from hospitals.

Analysis of Data

Responses were collected from Google questionnaire, and it has been analyzed to study the psychological impact of COVID in Post COVID era.

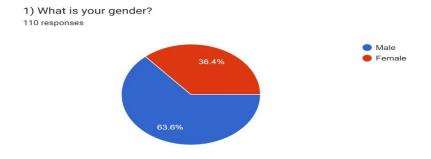


Fig 1: Gender

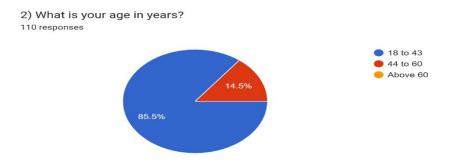


Fig. 2: Age (in years)

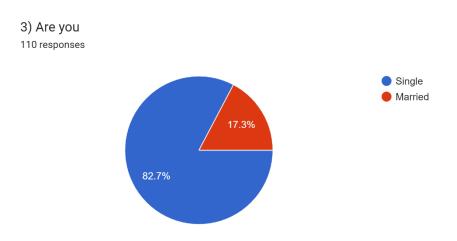


Fig. 3: Marital Status

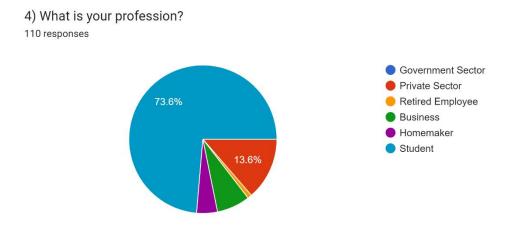


Fig. 4: Profession

5) What is your family income per month(in rupees)? 110 responses

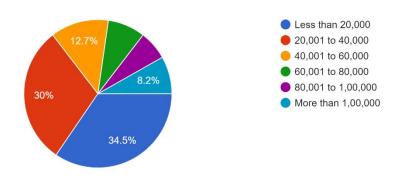


Fig. 5: Family Income

6) What is your residential area?

110 responses

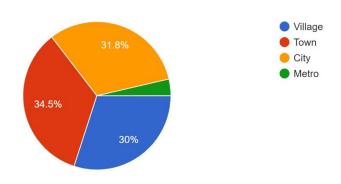


Fig. 6: Residential Area

1. Did you observe any psychological impact of Covid on you?(After Covid) 110 responses

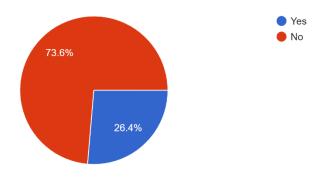


Fig. 7: Psychological Impact of COVID in Post COVID Phase

2. If yes, was the psychological impact resulted in some behavioral changes in you? 110 responses

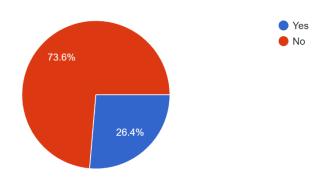


Fig. 8: Psychological Impact Resulting in Behavioral Change

3. The outcome of these behavioral changes is/are

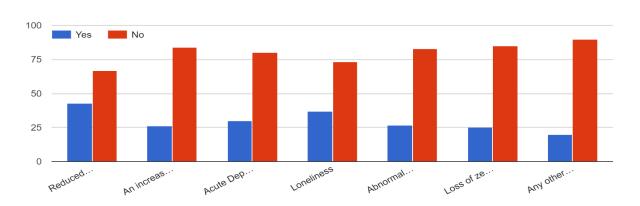


Fig. 9: Outcome of Behavioral Change

4. Did you observe any health issues after Covid period? 110 responses

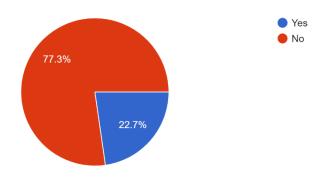


Fig. 10: Health Issues after COVID Period

5. If yes, do you feel these health issues are partly due to psychological impact of Covid? 110 responses

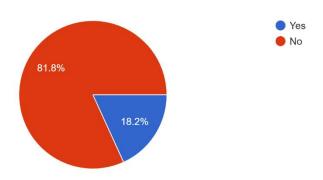


Fig. 11: Relation of health issue with psychological impact of COVID

6. Had Covid situation resulted in any psychological impact on your family members including children(if any)?

110 responses

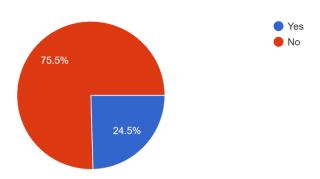


Fig. 12: Impact of COVID on Family Members

7. Have you noticed any psychological changes in your colleague in workplace in post Covid time? 104 responses

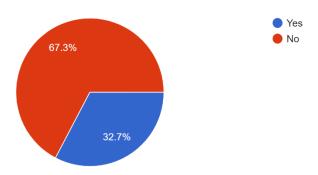


Fig. 13: Impact of COVID in Colleague in workplace

8. How much would you rate your relationship with family members in Post Covid situation? 110 responses

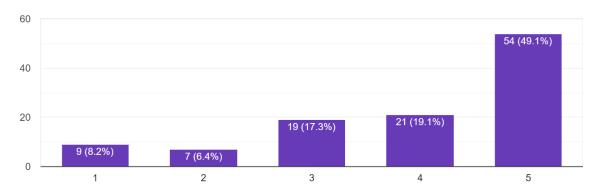


Fig. 14: Ratings related to relationship with family members in Post COVID Period

9. How much would you rate your relationship with your spouse/partner in post Covid Situation? 85 responses

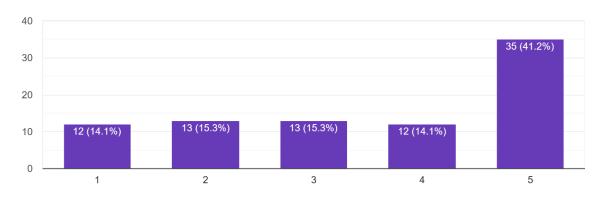


Fig. 15: Ratings related to relationship with spouse in Post COVID Period

10. How much would you rate your relationship with your child(if any) in post Covid Situation? 64 responses

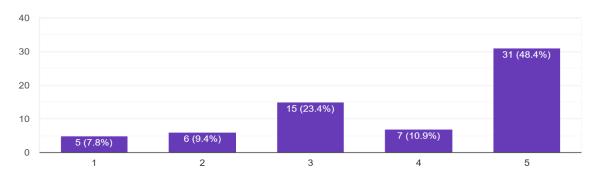


Fig 16: Ratings related to relationship with child (if any) in Post COVID Period

11. How much would you rate your relationship with your office colleagues in post Covid Situation? 69 responses

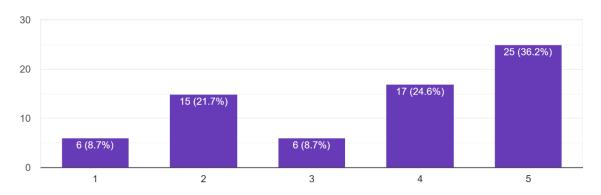


Fig 17: Ratings related to relationship with office colleague in Post COVID Period

12. How much would you rate your relationship with your neighbors in post Covid Situation? 110 responses

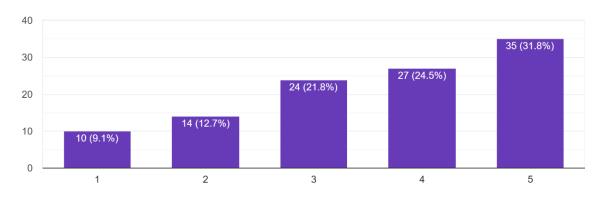


Fig 18: Ratings related to relationship with family members in Post COVID Period

13. Has Post Covid situation resulted in Over Thinking? 110 responses

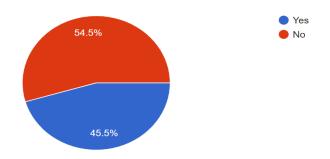


Fig 19: Analyzing Over Thinking because of Post COVID

14. Has Post Covid situation resulted in Loss of Control? 110 responses

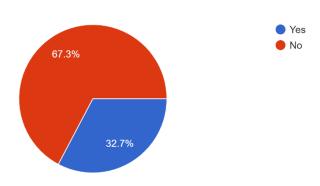


Fig 20: Analyzing Loss of Control because of Post COVID

15. Has Post Covid situation resulted in Irritability,restlessness and Outbursts? 110 responses

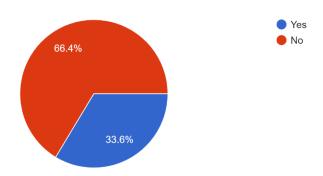


Fig 21: Analyzing Irritability, restlessness, and Outbursts as a result of Post COVID

16. During this Covid Period have you came across any hidden talent/interest that you started nurturing in Post Covid also?

30 responses

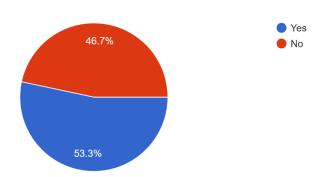


Fig 22: Analyzing the hidden talents because of Post COVID

Factors	Cronbach Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted
Psychological Outcome of COVID	0.900	0.906	0.921	0.626
Rate Relationship with others		0.864	0.893	0.627
	0.848			
Result of Post COVID	0.786	0.745	0.799	0520

Table 1: Construct Reliability and Validity

Factor	Saturated Model	Estimated Model	
SRMR	0.079	0.171	

Table 2: Model Fit

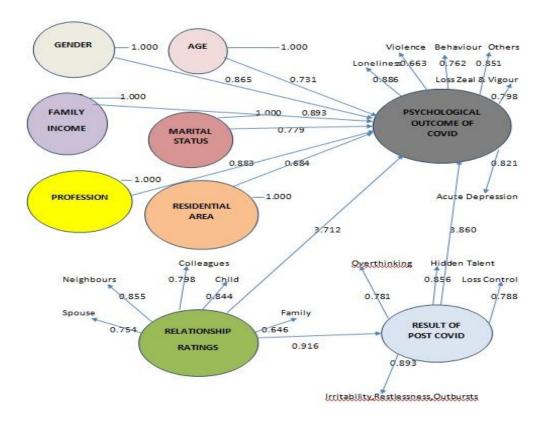


Fig 23: Structural Equation Model from Smart PLS (99 Responses)

Findings and Conclusion

- 1. The psychological impact of COVID in the Post COVID period was a positive impact. It was observed that during the Post COVID situation with their child (if any) due to COVID. It was analyzed that the relationship has improved to a great extent due to the lockdown period in Post COVID situation.
- 2. There is an improvement in the behavioral changes because of psychological impact of COVID in post COVID era.
- 3. The outcome of the behavioral change like reduced level of patience, increased level of violence, acute depression, loneliness, abnormal behavior with friends, loss of zeal and vigor or any other reasons was not so much on respondents.
- 4. The health issues were not so much on respondents after COVID period, only 23% of responses were observed to have health issues because of psychological impact of COVID during Post COVID Period. health issues are partly due to the psychological impact of COVID, only 18% of responses were observed to be impacted by the psychological impact of COVID during Post COVID Period having health issues.
- 5. Fig. 1 describes that there are approximately 64% of male responses and 36% female responses for measuring the psychological impact of Post COVID.
- 6. Fig. 2 describes that there are approximately 85% of responses who are in the age group of 18-43 years and 15% of responses were in the age group of 44-60 years for measuring the psychological impact of Post COVID.
- 7. Fig. 3 describes that there are approximately 83% of respondents who are single and 17% of respondents who are married for measuring the psychological impact of Post COVID.
- 8. Fig. 4 describes that there are 74% of respondents who works in government sector, 14% of respondents who works in private sector and other 12% were respondents from other sector like business, homemaker, student or retired employees for measuring the psychological impact of Post COVID.
- 9. Fig. 5 describes that there are approximately 35% of responses whose family income is less than Rs 20,000, 30% of responses whose family income is between Rs 20,001 to Rs 40,000, approximately 13% of responses whose family income is between Rs 40,001 to Rs 60,000, approximately 7% of responses whose family income is between Rs 60,001 to Rs 80,000, approximately 7% of responses whose family income is between Rs 80,001 to Rs 1,00,000 and 8% approximately 13% of responses whose family income is more than Rs 1,00,000 for measuring the psychological impact of Post COVID.
- 10. Fig 6 describes responses based on the residential area, approximately 30% of responses were from village area, 35% of responses were from town area, 32% of responses were from city area and around 3% of responses were from metro area.
- 11. Figure 7 describes the psychological impact of COVID was not so much on respondents, only 27% of responses were observed to be impacted by the psychological impact of COVID during Post COVID Period.
- 12. Figure 8 describes the psychological impact of COVID has not resulted in behavioral changes as such on respondents, only 26% of responses were observed to be impacted by the psychological impact which has led to some behavioral changes of COVID during Post COVID Period.
- 13. Figure 9 describes the outcome of the behavioral change like reduced level of patience, increased level of violence, acute depression, loneliness, abnormal behavior with friends, loss of zeal and vigor or any other reasons was not so much on respondents.

- 14. Figure 10 describes the health issues was not so much on respondents after COVID period, only 23% of responses were observed to have health issues as a result of psychological impact of COVID during Post COVID Period.
- 15. Figure 11 describes whether health issues are partly due to the psychological impact of COVID, only 18% of responses were observed to be impacted by the psychological impact of COVID during Post COVID Period having health issues.
- 16. Figure 12 describes the psychological impact of COVID on family members of respondents which was observed not so much, only 25% of responses were observed to be impacted by the psychological impact of COVID during Post COVID Period which has affected family members including children (if any).
- 17. Figure 13 describes the psychological impact of COVID on colleagues in workplace, which was observed not so much, only 33% of responses were observed to be impacted by the psychological impact of COVID during Post COVID Period which has affected peer groups in workplace.
- 18. Figure 14 describes the ratings that the respondents observed during the Post COVID situation with their family members due to COVID. It was analyzed that the relationship has improved to a great extent due to the lockdown period in Post COVID situation.
- 19. Figure 15 describes the ratings that the respondents observed during the Post COVID situation with their spouse due to COVID. It was analyzed that the relationship has improved to a great extent due to the lockdown period in Post COVID situation. They were able to understand their partner more in this period, which has excellently improved their relationship with each other in majority of the cases.
- 20. Figure 14 describes the ratings that the respondents observed during the Post COVID situation with their child (if any) due to COVID. It was analyzed that the relationship has improved to a great extent due to the lockdown period in Post COVID situation.
- 21. Figure 17 describes the ratings that the respondents observed during the Post COVID situation with office colleague due to COVID. It was analyzed that the relationship has improved to a great extent due to the lockdown period in Post COVID situation.
- 22. Figure 18 describes the ratings that the respondents observed during the Post COVID situation with their neighbors due to COVID. It was analyzed that the relationship has improved to a great extent due to the lockdown period in Post COVID situation.
- 23. Figure 19 describes the analysis which was done that Post COVID has resulted in over thinking. It was analyzed that majority (55%) of respondents thinks that over thinking is not a result of Post COVID period.
- 24. Figure 20 describes the analysis which was done that Post COVID has resulted in loss of control. It was analyzed that majority (33%) of respondents think that loss of control is not a result of Post COVID period.
- 25. Figure 21 describes the analysis which was done that Post COVID has resulted in irritability, restlessness, and outbursts. It was analyzed that majority (65%) of respondents think that irritability, restlessness, and outbursts are not a result of Post COVID period.
- 26. Figure 22 describes the analysis which was done that Post COVID has resulted in upliftment of hidden talents of respondents. It was analyzed that majority (54%) of respondents thinks that their hidden talent has been nurtured due to COVID period which is also a continuation factor in Post COVID situation.
- 27. According to Hair Jr et. al. (2016), a structural equation model can be described as a model that indicates the relationship between constructs/latent variables of the study. The rule of thumb for the significance of these relationships is that the t-values must be 1.96 or greater (Hair et al., 2016).

Journal of Contemporary Issues in Business and Government Vol. 29, No. 01, 2023 https://cibgp.com/

P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2023.29.01.043

Figure 23 indicates that there is a statistically significant relationship between the ratings of relationship with spouse, child (if any), Neighbor, office colleague and family and psychological outcome of COVID with a t-value of 3.712 and that too between result of Post COVID (Over thinking, hidden talent, loss of control, irritability, restlessness, and outburst) and psychological outcome of COVID with a t-value of 3.860. The impact of all demographic factors (age, marital status, family income, gender, profession, residential area) was about 73%, 77%, 89%, 86%, 88%, 68% respectively on the psychological outcome of COVID. Maximum impact was obtained on family income and profession due to the COVID situation in Post COVID period. Moreover, based on the ratings obtained for relationship with others (Spouse, neighbor, colleague, child, family) was approximately 75%, 85%, 80%, 84%, 64% respectively on the result of Post COVID situation. The relationship with neighbors has improved the most as compared to the relationship with family which has improved the least. The result of Post COVID (Irritability, restlessness, outbursts, over thinking, hidden talent, and loss of control) was approximately 89%, 78%, 85% and 79% respectively with psychological outcome of COVID.

- 28. From the Table 1 we can interpret that the model satisfies the Construct reliability and Validity since the Cronbach alpha is more than 0.70, Composite reliability is between 0.70 to 0.95 which is significant, and the AVE may be used as a test of both convergent and divergent validity. AVE reflects the average communality for each latent factor in a reflective model. In an adequate model, AVE should be greater than .5 (Chin, 1998; Höck & Ringle, 2006: 15).
- 29.SRMR is a measure of approximate fit of the researcher's model. It measures the difference between the observed correlation matrix and the model-implied correlation matrix. By convention, a model has good fit when SRMR is less than .08 (Hu & Bentler, 1998). From Table 2 we can interpret that the model satisfies the criteria.

Conclusion

From the above two types of analysis through Google form questionnaire and Smart PLS, we can interpret that during Post COVID period majority of the respondents have rated that their relationship with spouse, child, neighbour, family, and office colleague have improved to a great extent. There is an improvement in the behavioural changes because of psychological impact of COVID in post COVID era.

There is less health issue related to the psychological impact of COVID, only 23% of responses were observed to have health issues because of psychological impact of COVID during Post COVID Period. It was analyzed that psychological impact of COVID in the workplace is not so much, only 33% of responses were observed to be impacted by the psychological impact of COVID during Post COVID Period which has affected peer groups in workplace.

Amid the increasing cases of the COVID-19 pandemic in the country, schools and other educational institutions were shut down, which allowed many to continue with their learning and teaching activities from the comforts of their homes. The lockdown period seemed to be golden opportunity to unleash creative side, by exploring new hobbies and talents which is still nurtured by many people as per the statistics obtained from the Google form questionnaire generated to respondents.

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Journal of Contemporary Issues in Business and Government Vol. 29, No. 01, 2023 https://cibgp.com/

P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2023.29.01.043

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